

SD Airports

Airport Master Plan

Montgomery-Gibbs Executive Airport

City of San Diego, CA

June, 2021

FAA AIP #3-06-0211-017-2016

Prepared by:

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SD Airports

Airport Master Plan

Montgomery-Gibbs Executive Airport

Section 1

Inventory, Surveys, & Data Collection

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1.1 Introduction

The City of San Diego owns and operates two General Aviation (GA) airports in San Diego County – the Montgomery-Gibbs Executive Airport and Brown Field Municipal Airport. In 2017, the City began developing an Airport Master Plan for each of the facilities in order to determine the extent, type, and schedule of development needed. The Federal Aviation Administration (FAA) offers a number of objectives as a guide in the preparation of a master plan:

- Understand the issues, opportunities and constraints of the airport
- Consider the impact of recent national and local aviation trends
- Identify the capacity of airport infrastructure
- Determine the need for new improvements
- Estimate costs and identify potential funding sources
- Develop a schedule for implementation of proposed projects
- Comply with federal, state and local regulations

The Airport Master Plan includes a report of existing and future conditions, an Airport Layout Plan (ALP), and a schedule of priorities and funding sources for proposed improvements. This section documents the first step in the Airport Master Plan for Montgomery-Gibbs Executive Airport (hereafter referred to by its FAA identifier "MYF" or "the Airport"), which involves gathering and organizing information on existing conditions of the Airport and the surrounding community. This section provides a summary of existing Airport facilities, air traffic activity, and the surrounding airspace environment. Additionally, general information regarding the Airport's setting in the community and the larger aviation network is provided. This includes local economic and development characteristics, weather and environmental conditions, and the demographics of the surrounding area. The information obtained in this first step of the master planning process provides a foundation for subsequent analysis.

Unless otherwise indicated, all photographs in this document were taken by C&S Engineers, Inc. 2017.



Airport Entrance Sign

1.2 Background

Airport System Planning Role

Airport planning occurs at the national, state, regional, and local level. The following section identifies the Airport's role based on previous reports, with the goal of the master planning process to guide planning practices at the local level.

The Airport is included in the National Plan of Integrated Airport Systems (NPIAS), which identifies airports that are significant to the national air transportation system and therefore eligible for grant funding under the Federal Aviation Administration's Airport Improvement Program (AIP). The NPIAS 2017-2021 Report, produced by the U.S. Department of Transportation (DOT), documents the projected facility improvements and needs for 3,332 existing and eight proposed airports. It estimates that $32.5 billion in infrastructure development will be eligible for federal aid over the next five years. In administering funding, the FAA uses the NPIAS, which supports the FAA's strategic goals for safety, system efficiency, and environmental compatibility by identifying the specific airport improvements that will contribute to achievement of those goals.

Due to MYF's proximity to downtown San Diego and the large population served, it is classified by the NPIAS as a regional reliever airport. A reliever airport is one that is in place to accommodate overflow and general aviation traffic that would otherwise cause congestion at a neighboring airport, in this case San Diego International (SAN). Approximately 530, or 16 percent of the airports in the NPIAS, are classified as regional and they account for 12.2 percent of the cost of the AIP. The Airport is one of 151 regional airports classified as a reliever to a primary airport, and one of only six regional relievers to have more than 400-based aircraft[1]. The closest regional reliever airport with a comparable number of based aircraft is Whiteman Airport in Los Angeles, California, approximately 125 miles to the northwest. For the first five years of the planning period (through 2021), MYF is projected to remain a regional reliever and require an estimated $18,288,889[2] for developments.

At the state level, the California Aviation System Plan 2010 System Needs Assessment identified MYF as the only Metropolitan General Aviation Airport in San Diego County. Enhancements recommended in the plan include a 423-foot runway extension and an increase in weight-bearing capacity.

The San Diego County Regional Airport Authority (SDCRAA) developed the Regional Aviation Strategic Plan (RASP) in 2010 and 2011 to take a comprehensive look at the civilian airports in the San Diego County region. The RASP explored a scenario that proposed to preserve SAN's Airfield capacity for commercial passenger service by making improvements and accommodating GA traffic at Gillespie Field Airport, MYF, and Brown Field Municipal Airport. The improvements at the Airport would include a new Fixed Base Operator (FBO) as well as new corporate aircraft hangars. One issue with this scenario is that the existing runway length at MYF is incapable of handling many high-end corporate GA aircraft[3].

Airport History

William "Bill" Gibbs founded Montgomery-Gibbs Executive Airport in 1937 as a single runway, turf airfield. Through the years, it has changed names several times, expanded, and grown into one of the largest GA reliever airports in the U.S. Some of the highlights the Airport's history are presented on **Figure 1.1**.

1 Based aircraft are defined as those stored at an airport and not transient.
2 United States of America. U.S. Department of Transportation. Federal Aviation Administration. National Plan of Integrated Airport Systems (NPIAS) Report Airports 2017-2021. N.p., n.d. Web. 14 Mar. 2017.
3 San Diego Regional Airport Authority, (2010) Regional Aviation Strategic Plan



The Airport is leased to the Ryan School of Aeronautics to provide flight training to the Army Air Corps cadets

Purchased by the City of San Diego

Construction of 2 asphalt runways and taxiways

Construction of parallel Runway 10R/28L and the administration building



Noise monitoring system installed

Renamed "Montgomery-Gibbs Executive Airport to honor Bill Gibbs and demonstrate commitment to providing quality services and facilities

1930 1935 1937 1940 1945 1947 1949 1950 1955 1960 1965 1969 1970 1975 1980 1985 1990 1995 2000 2005 2010 2015 2016 2020

Construction of the Air Traffic Control Tower

Runway 28R is extended to the east to a total of 4,598 feet

The Runway 28R instrument landing system is established



Renamed "Montgomery Field" in honor of John J. Montgomery, who is credited with the first controlled flight in a fixed wing aircraft, which took place in the Otay Mesa Area of San Diego.

William "Bill" Gibbs opens "Gibbs Field" as a single turf runway airport

SD Airports

Montgomery-Gibbs Executive Airport Master Plan

Figure 1.1
Airport History

Source: https://www.sandiego.gov/airports/Montgomery, C&S Engineers, Inc.
Photo Credit: San Diego Air and Space Museum Archives

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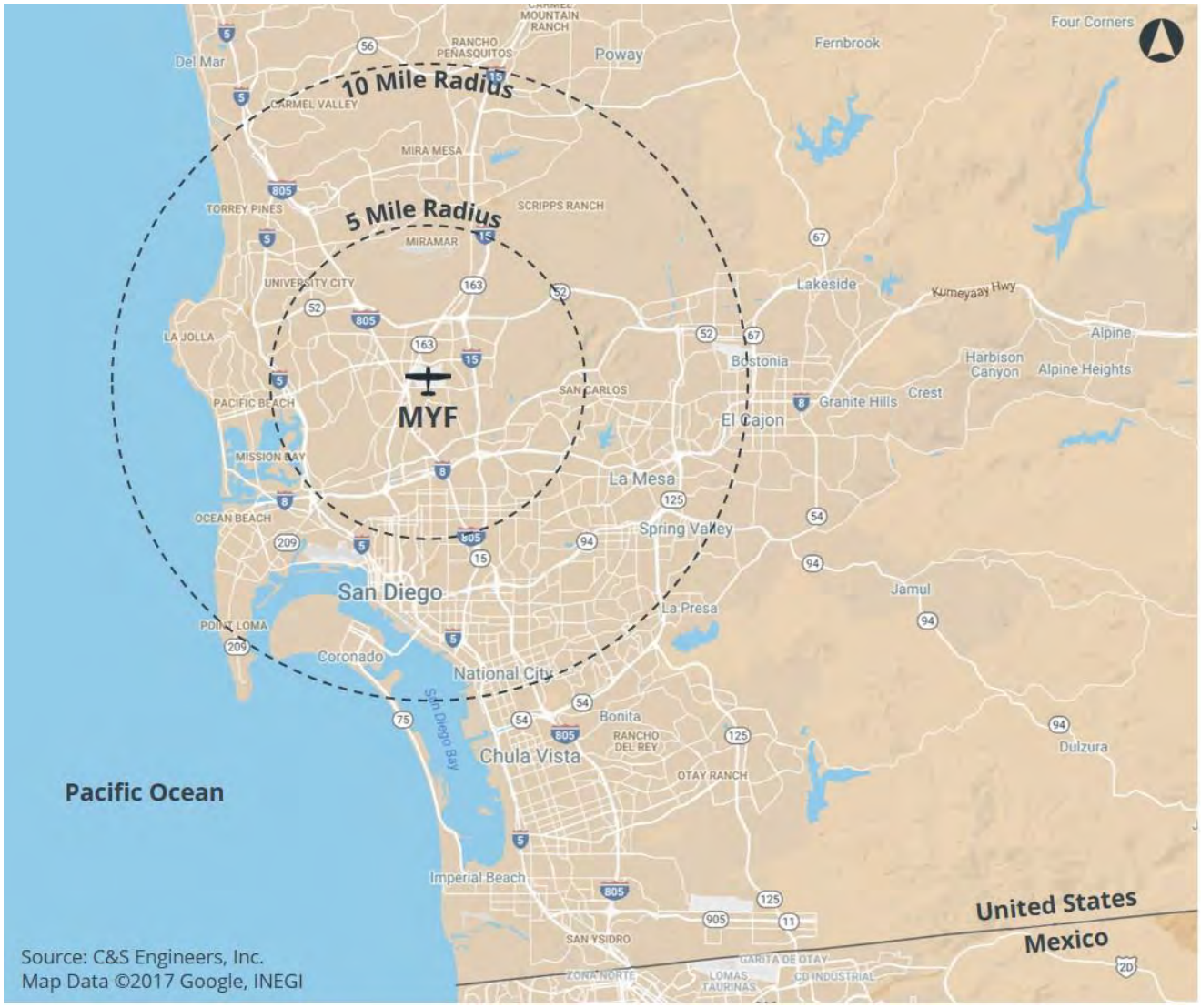
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Airport Setting

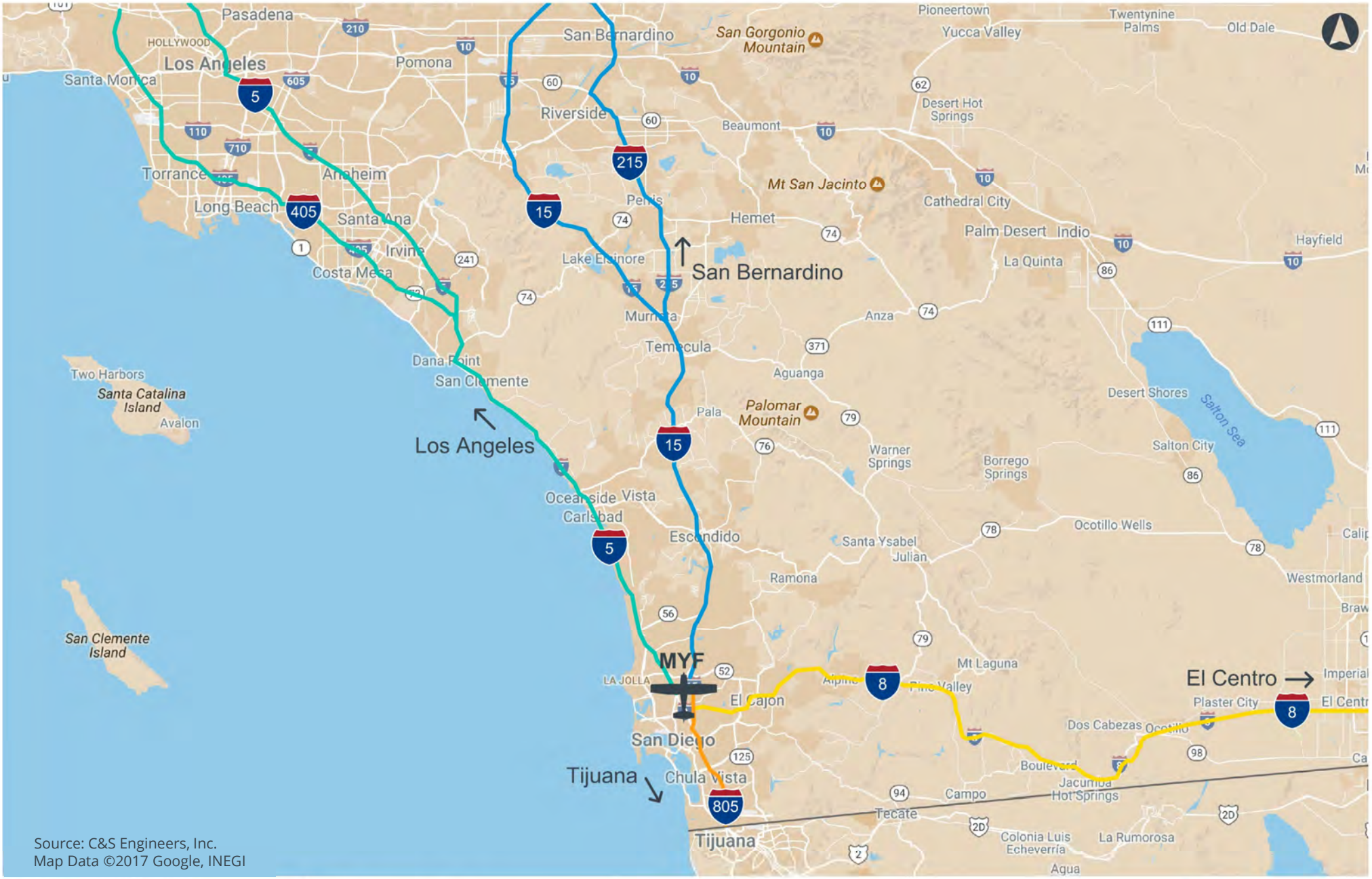
The Airport is located approximately six miles north of downtown San Diego, California, 20 miles south of Escondido, California, 11 miles west of El Cajon, California, and 22 miles north of Tijuana, Mexico. The regional setting and access routes are depicted on **Figure 1.3** on the following page.

The Airport is located in southwest San Diego County, in the Kearny Mesa community planning area. It is the closest GA airport to downtown San Diego. It is easily accessible via Interstates 5 and 15 from the north and south and by Interstate 8 from the east and west. The Airport's local setting is shown on **Figure 1.2**.

Figure 1.2 – Airport Local Setting



The Airport is situated on 549-acres bound by Balboa Avenue to the north, Ruffin Road to the east, Aero Drive to the south, and Kearny Villa Road to the west. It is directly in between State Route 163 on the west and Interstate Route 15 to the east. Local access to the Airport is depicted on **Figure 1.4**. The Airport primarily serves the west central area of San Diego County.



Source: C&S Engineers, Inc.
Map Data ©2017 Google, INEGI

SD Airports

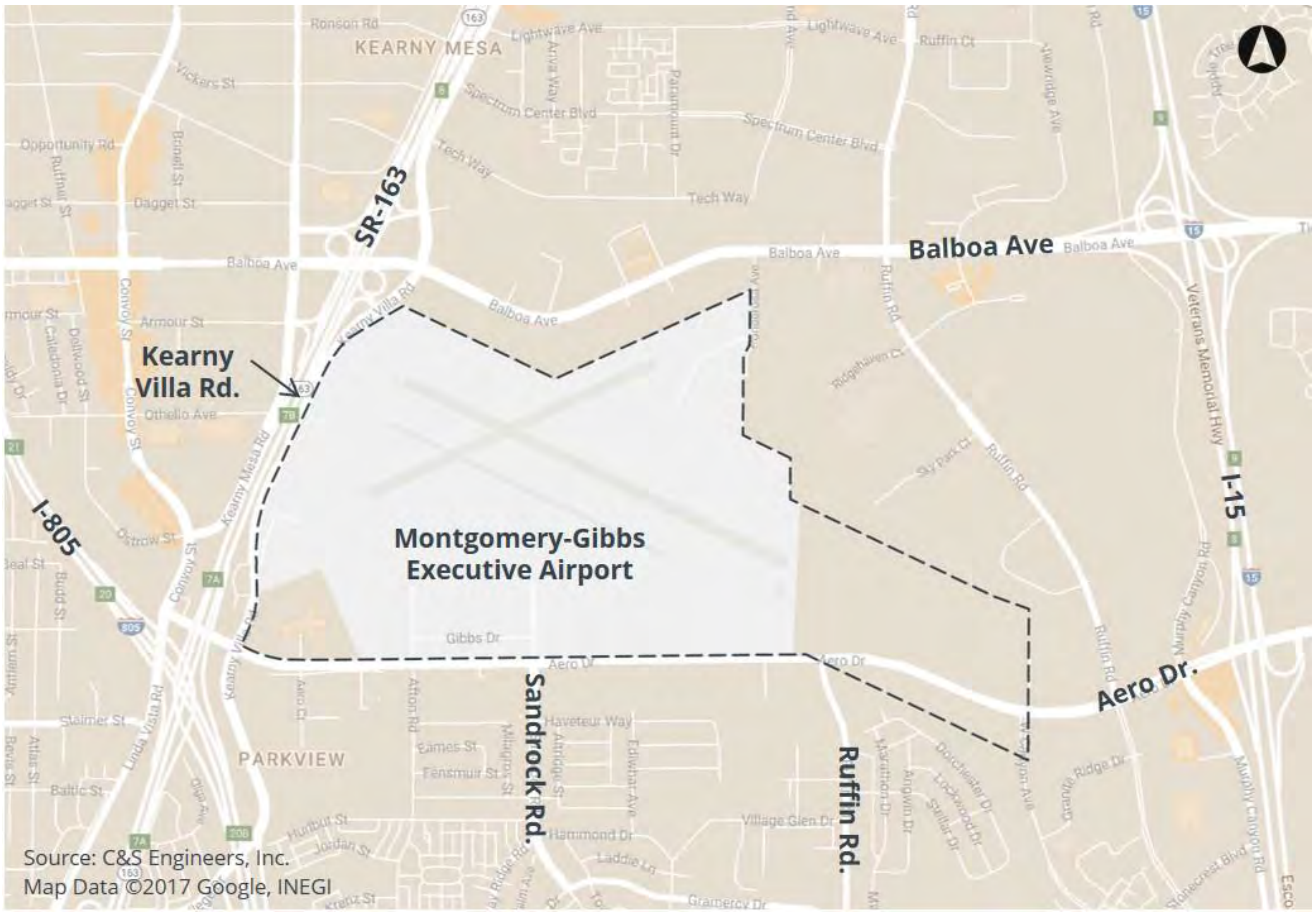
Montgomery-Gibbs Executive Airport Master Plan

Figure 1.3

Regional Access Routes

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Figure 1.4 – Local Access



Airport Overview

The Airport consists of multiple facilities that can be categorized into the following components:

Airside: The airside consists of three runways (Runways 10L/28R, 10R/28L, and 5/23) and 12 taxiways, including a full parallel taxiway serving Runways 10L/28R and 10R/28L. In addition to the runways and taxiways there are several aircraft run-up areas, a helicopter landing area, and various navigational aids (NAVAIDS). The airside also includes aircraft parking aprons, tie-downs, T-hangars, conventional hangars, and the FAA Airport Traffic Control Tower (ATCT).

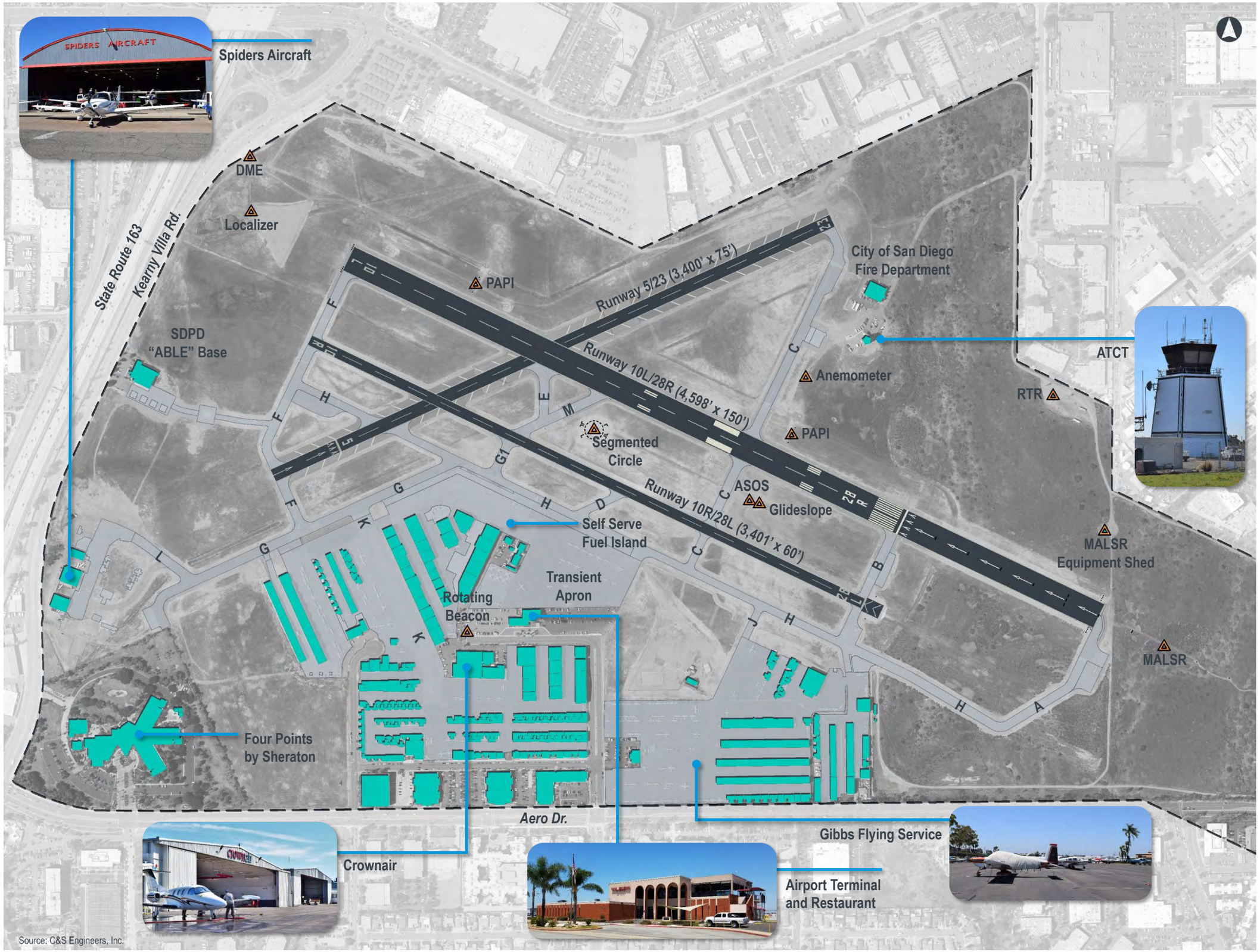


MYF ATCT

Landside: Landside facilities at the Airport include the administration building which is made up of offices for both the airport staff and a number of City employees that work for the Airports Division. This building provides the public with a lounge on the first floor and a restaurant located on the second floor.

Support Facilities: Support facilities include those relating to aircraft maintenance, refueling, flight instruction, and aircraft sales. Most of the services are provided by FBOs at the Airport.

Figure 1.5 illustrates the existing facilities at the Airport, which are discussed in subsequent sections.



SD Airports

Montgomery-Gibbs Executive
Airport Master Plan

Figure 1.5
Existing Facilities

Legend

- Property Line
- Existing Buildings
- Existing Airfield Pavement
- Existing NAVAID

250' 0' 250' 500'

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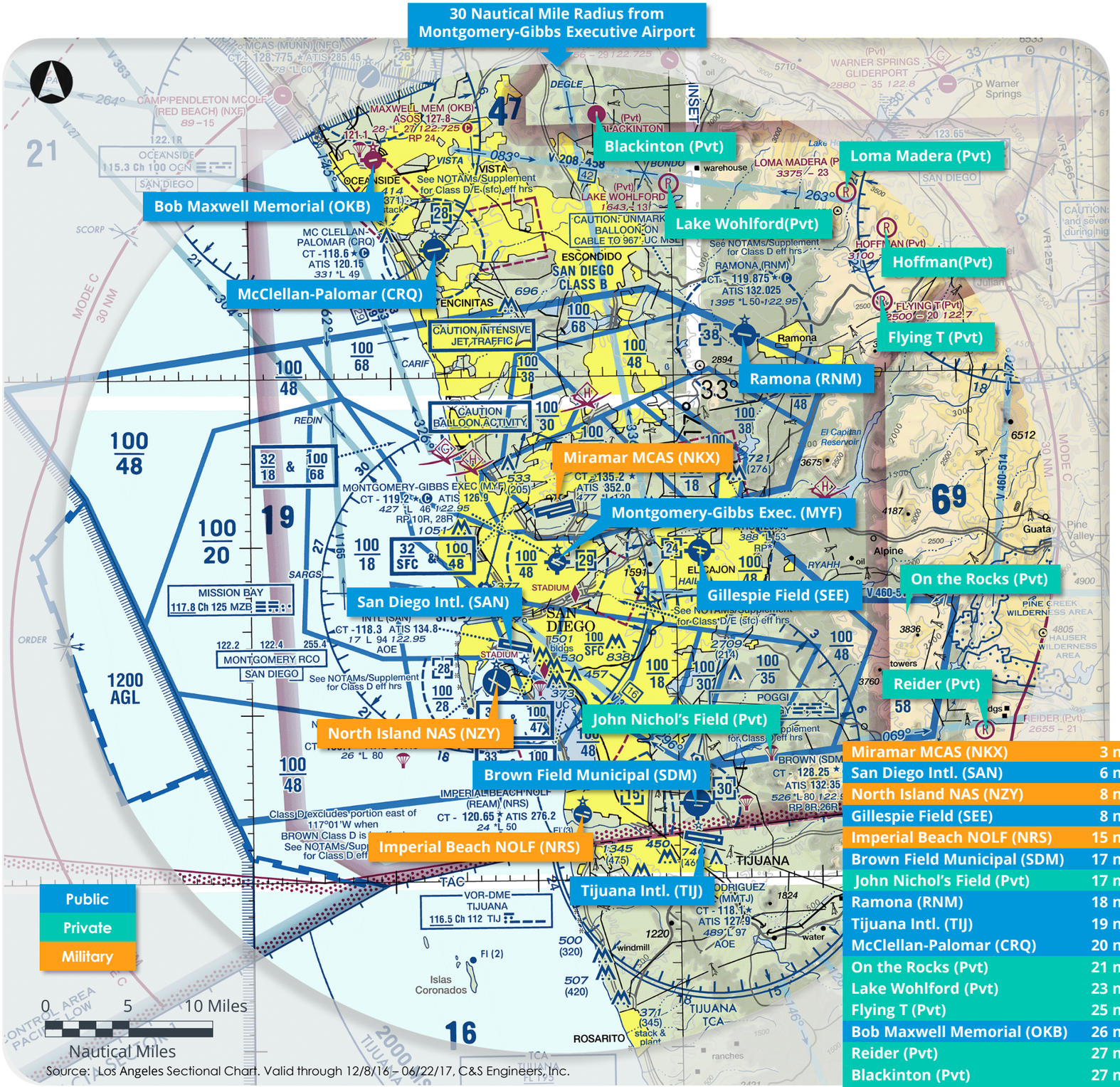
Surrounding Airports

There are three military, six private, and seven public-use airports that are within a 30-nautical mile (NM) radius of the Airport. The locations of the surrounding airports and associated airspace are depicted on **Figure 1.6**. Descriptions of the surrounding public-use and military airports are included in **Table 1.1**. The nearest medium to large-hub commercial service airports outside of the 30-NM radius are John Wayne Airport, 63 NM to the northwest, and Los Angeles International Airport 93 NM to the northwest.

Table 1.1 – Surrounding Public-Use and Military Airports

Airport Name (Location Identifier) Ownership	**Location** Distance from MYF	**NPIAS Classification**	**Runway Heading:** Runway Dimensions (Surface Type)	**Instrument Approaches**
Miramar MCAS (NKX)* Marine Corps Air Station	**San Diego, CA** 3 NM north	**N/A (Military)**	**6L/24R:** 12,000' x 200' (Concrete) **6R/24L:** 8,001' x 200' (Porous European Mix)	ILS, LOC/DME, RNAV (GPS), TACAN, HI-TACAN
San Diego International (SAN) San Diego County Regional Airport Authority	**San Diego, CA** 6 NM southwest	**Primary Service/Large Hub**	**9/27:** 9,400' x 200' (Asphalt-Concrete)	ILS/LOC, RNAV (GPS)
North Island NAS (NZY)* Naval Air Station	**San Diego, CA** 8 NM southwest	**N/A (Military)**	**18/36:** 8,001' x 200' (Porous European Mix) **11/29:** 7,501' x 200' (Porous European Mix)	LOC/DME, RNAV (GPS), VOR, TACAN, HI-TACAN
Gillespie Field (SEE) County of San Diego	**El Cajon, CA** 8 NM east	**National/ Reliever**	**9L/27R:** 5,342' x 100' (Asphalt) **17/35:** 4,145' x 100' (Asphalt) **9R/27L:** 2,738' x 60' (Asphalt)	RNAV (GPS), LOC
Imperial Beach NOLF (NRS)* Naval Outlying Field	**Imperial Beach, CA** 15 NM south	**N/A (Military)**	**8/26:** 2,240' x 151' (Concrete) **9/27:** 4,997' x 336' (Porous European Mix)	TACAN
Brown Field Municipal (SDM) City of San Diego	**San Diego, CA** 17 NM southeast	**National/ Reliever**	**8L/26R:** 7,972' x 150' (Asphalt-Concrete) **8R/26L:** 3,180' x 75' (Asphalt)	RNAV (GPS), VOR-A
Ramona (RNM) County of San Diego	**Ramona, CA** 18 NM northeast	**Regional/ Reliever**	**9/27:** 5,001' x 150' (Asphalt)	RNAV (GPS), VOR/DME-A
Tijuana International (TIJ) Mexico	**Tijuana, Mexico** 19 NM southeast	**N/A (Foreign)**	**9/27:** 9,711' x 148' (Asphalt)	ILS, DME, LOC, VOR
McClellan-Palomar (CRQ) County of San Diego	**Carlsbad, CA** 20 NM northwest	**Primary/ Nonhub**	**6/24:** 4,897' x 150' (Asphalt)	ILS, LOC, RNAV (GPS), VOR-A
Bob Maxwell Memorial (OKB) City of Oceanside	**Oceanside, CA** 26 NM northwest	**Local/GA**	**6/24:** 2,712' x 75' (Asphalt)	GPS, VOR-A

* Military facility, non-public-use, Source: FAA Chart Supplement



Source: Los Angeles Sectional Chart. Valid through 12/8/16 – 06/22/17, C&S Engineers, Inc.

Miramar MCAS (NKX)	3 nm
San Diego Intl. (SAN)	6 nm
North Island NAS (NZY)	8 nm
Gillespie Field (SEE)	8 nm
Imperial Beach NOLF (NRS)	15 nm
Brown Field Municipal (SDM)	17 nm
John Nichol's Field (Pvt)	17 nm
Ramona (RNM)	18 nm
Tijuana Intl. (TIJ)	19 nm
McClellan-Palomar (CRQ)	20 nm
On the Rocks (Pvt)	21 nm
Lake Wohlford (Pvt)	23 nm
Flying T (Pvt)	25 nm
Bob Maxwell Memorial (OKB)	26 nm
Reider (Pvt)	27 nm
Blackinton (Pvt)	27 nm
Hoffman (Pvt)	28 nm
Loma Madera (Pvt)	28 nm

SD Airports

Montgomery-Gibbs Executive Airport

Airports having Control Towers are shown in Blue, all others in Magenta. Consult Chart Supplement for details involving airport lighting, navigation aids, and services. All times are local. For additional symbol information refer to the Chart User's Guide.

AIRPORTS

Other than hard-surfaced runways
Seaplane Base
Hard-surfaced runways 1500 ft. to 8069 ft. in length
Hard-surfaced runways greater than 8069 ft. or some multiple runways less than 8069 ft.
Open dot within hard-surfaced runway configuration indicates approximate VOR, VOR-DME, DME or VORTAC location.
All recognizable hard-surfaced runways, including those closed, are shown for visual identification. Airports may be public or private.

ADDITIONAL AIRPORT INFORMATION

(R) Private "(Pvt)" - Non-public use having emergency or landmark value
Military - Other than hard-surfaced; all military airports are identified by abbreviations AFB, NAS, AAF, etc.
(H) Heliport Selected
(U) Unverified
Abandoned - paved having landmark value, 3000 ft. or greater
(F) Ultralight Flight Park Selected
Fuel - available Mon thru Fri 10:00 A.M. to 4:00 P.M. depicted by use of ticks around basic airport symbol. Consult Supplement for details and for availability at airports with hard-surfaced runways greater than 8069 ft.
☆ Rotating airport beacon in operation Sunset to Sunrise
OBJECTIONABLE - Airport may adversely affect airspace use.

AIRPORT DATA

Box indicates FAR 93 — FSS — FAR 91
Special Air Traffic Rules & Airport Traffic Patterns. — NO SVFR — Location Identifier
Runways with Right Traffic Patterns (public use) — NAME (NAM) (PNAM) — ICAO Location Indicator shown outside contiguous U.S.
RP ★ Special conditions exist - see Supplement. — CT - 118.3 ★ (C) ATIS 123.8 — 285 L 72 122.95 — RP 23, 34
VFR Advsy 125.0 — UNICOM
WX CAM — Weather Camera (AK)
FSS - Flight Service Station — AOE — Airport of Entry
NO SVFR - Fixed-wing special VFR flight is prohibited.
CT - 118.3 - Control Tower (CT) - primary frequency
★ - Star indicates operation part-time. See tower frequencies tabulation for hours of operation.
(C) - Follows the Common Traffic Advisory Frequency (CTAF)
ATIS 123.8 - Automatic Terminal Information Service
AFIS 135.2 - Automatic Flight Information Service (AK)
ASOS/AWOS 135.42 - Automated Surface Weather Observing Systems (shown where full-time ATIS not available). Some ASOS/AWOS facilities may not be located at airports.
UNICOM - Aeronautical advisory station
VFR Advsy - VFR Advisory Service shown where full-time ATIS not available and frequency is other than primary CT frequency.
285 - Elevation in feet
L - Lighting in operation Sunset to Sunrise
*L - Lighting limitations exist; refer to Supplement.
72 - Length of longest runway in hundreds of feet; usable length may be less.
When information is lacking, the respective character is replaced by a dash. Lighting codes refer to runway edge lights and may not represent the longest runway or full length lighting.

AIRPORT TRAFFIC SERVICE AND AIRSPACE INFORMATION

Only the controlled and reserved airspace effective below 18,000 ft. MSL are shown.
Class B Airspace
Class C Airspace (Mode C - see FAR 91.215/AIM.)
Class D Airspace
40 — Ceiling of Class D Airspace in hundreds of feet (A minus ceiling value indicates surface up to but not including that value.)
Class E (sfc) Airspace
Class E Airspace with floor 700 ft. above surface that laterally abuts Class G Airspace.
CLASS G
Class E Airspace with floor 700 ft. above surface that laterally abuts 1200 ft. or higher Class E Airspace
Class E Airspace with floor 1200 ft. or greater above surface that laterally abuts Class G Airspace
2400 MSL / 4500 MSL — Differentiates floors of Class E Airspace greater than 700 ft. above surface.
Class E Airspace exists at 1200' AGL unless otherwise designated as shown above.
Class E Airspace low altitude Federal Airways are indicated by center line.
Intersection - Arrows are directed towards facilities which establish intersection.
132° — V 69 — 169 — Total mileage between NAVAIDs on direct Airways
Class E Airspace low altitude RNAV 2 Routes are indicated by center line.
T 319 — TK 313 (Helicopter Only) — RNAV Waypoint
Prohibited, Restricted, and Warning Areas; Canadian Advisory, Danger, and Restricted Areas
Alert Area and MOA - Military Operations Area
Special Airport Traffic Area (See FAR 93 for details.)
ADIZ - Air Defense Identification Zone
MODE C (See FAR 91.215/AIM.)
National Security Area
Terminal Radar Service Area (TRSA)
IR211 — MTR - Military Training Route

COMMUNICATION BOXES

122.1R 122.6 123.6 — OAKDALE (U) — 362★ 122.8 OAK — 122.1R CHICAGO CHI
Underline indicates no voice on frequency.
Crosshatch indicates Shutdown status.
★ - Operates less than continuous or On-Request.
(A) - ASOS/AWOS
(H) - HIWAS
(T) - TWEB
FSS radio providing voice communication — 122.1R MIAMI
Heavy line box indicates Flight Service Station (FSS). Frequencies 121.5, 122.2, 243.0 and 255.4 (Canada - 121.5, 126.7 and 243.0) are available at many FSSs and are not shown above boxes. All other frequencies are shown.
R - Receive only
Frequencies above thin line box are remoted to NAVAID site. Other FSS frequencies providing voice communication may be available as determined by altitude and terrain. Consult Supplement for complete information.

RADIO AIDS TO NAVIGATION

VHF OMNI RANGE (VOR)
VORTAC
VOR-DME
DME
Other facilities, i.e., FSS Outlet, RCO, WX CAM (AK) (see Supplement), etc.
Non-Directional Radio Beacon (NDB)
NDB - DME

OBSTRUCTIONS

1000 ft and higher AGL
Above 200 ft & below 1000 ft AGL (above 299 ft AGL in urban area)
Wind Turbine
Group Obstruction
Wind Turbine Farm
2894' UC — Elevation of the top above mean sea level
2049 (1149) — Height above ground
UC — Under construction or reported; position and elevation unverified
Obstruction with high-intensity lights; may operate part-time
NOTICE: Guy wires may extend outward from structures.

MISCELLANEOUS

(A) A - Aerobatic Practice Area (See Supplement.)
G - Glider Operations
H - Hang Glider Activity
U - Ultralight Activity
UA - Unmanned Aircraft Activity
Parachute Jumping Area (See Supplement.)
STADIUM — Intermittent TFR site (within 3 NM, up to & incl 3000' AGL)
Space Launch Activity Area (See Supplement.)
Marine Light
−1°E− — Isogonic Line (2015 VALUE)
VPXYZ — VFR Waypoints (See chart tabulation for latitude/longitude.)
NAME (VPXYZ)

TOPOGRAPHIC INFORMATION

Power Transmission Line
Aerial Cable
Lookout Tower 618 (Elevation Base of Tower)
Mountain Pass 11823 (Elevation of Pass)
Pass symbol does not indicate a recommended route or direction of flight and pass elevation does not indicate a recommended clearance altitude. Hazardous flight conditions may exist within and near mountain passes.

Figure 1.6
Airspace Environment & Adjacent Airports

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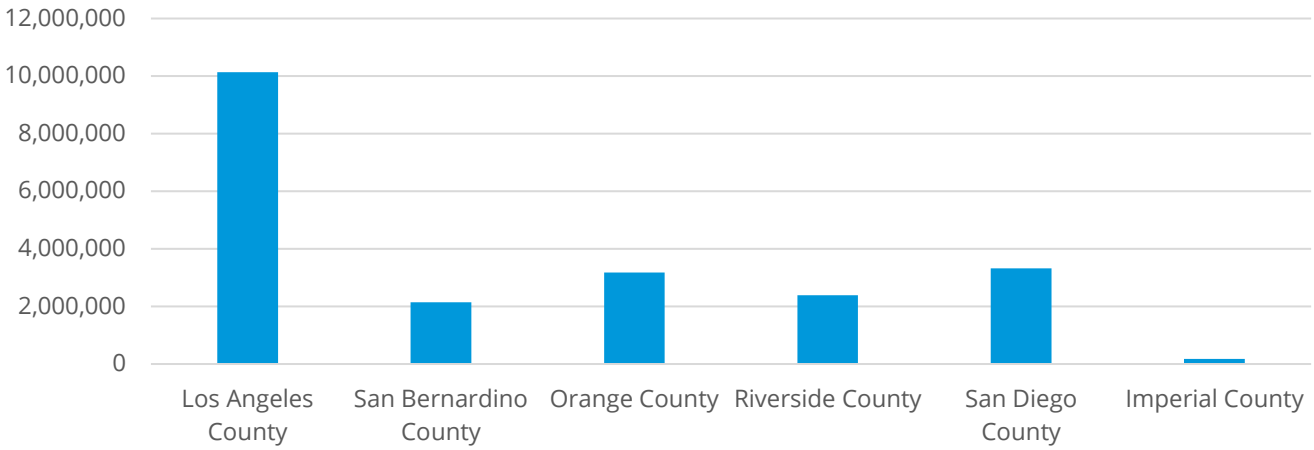
1.3 Population Data

This section provides background on the socioeconomic characteristics of the area surrounding the Airport.

Population Trends

San Diego is the second most populous county in California, second only behind Los Angeles County. Population levels in 2016, estimated by the United States Census Bureau for both San Diego County and the surrounding counties, are presented on **Figure 1.7**.

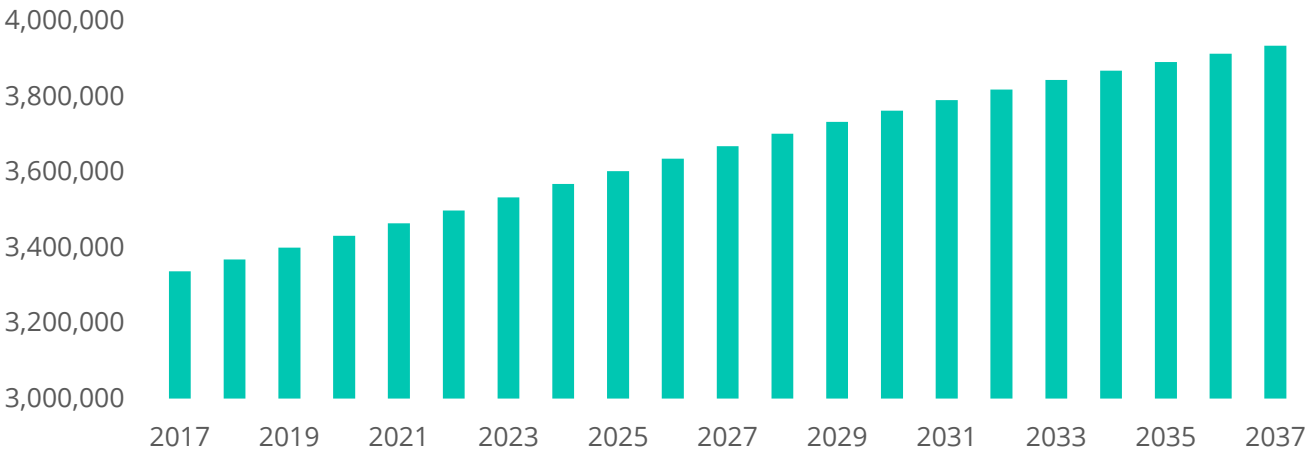
Figure 1.7 – San Diego and Surrounding County Populations



Source: U.S. Census Bureau (2010), C&S Engineers, Inc.

The San Diego County Economic Forecast, produced by the California Department of Transportation, estimates that the population of San Diego County will increase by 597,740 people in the 20-year period from 2017 to 2037. This would bring the total population to 3,936,040. The forecasted increase is presented on **Figure 1.8**.

Figure 1.8 – San Diego County Population Forecast



Source: California Department of Transportation, (2016) *San Diego County Economic Forecast*, C&S Engineers, Inc.

1.4 Airport Activity and Organizational Structure

Ownership and Operations

Montgomery-Gibbs Executive Airport is a public-use airport owned and operated by the City of San Diego. The Airports Division is a branch of the City's Real Estate Assets Department and oversees the operations at City owned airports. The Airport is home to a number of facilities, including two FBO's, that are owned or leased by tenants. They provide a variety of services such as aircraft maintenance, refueling, flight training, hangar rentals, air charter, and medical transport. **Table 1.2** lists the current tenants at the Airport as well any services they provide.

Table 1.2 – Airport Tenants and Services Provided

Tenant Name	Service Provided
San Diego Police Air Support Unit	Air Support, Surveillance, Aerial Security, Search and Rescue
Advanced Aircraft Services	Aircraft Maintenance
Spiders Aircraft Service	Aircraft Maintenance
Coast Aircraft	Aircraft Maintenance, Hangar Rental, tie-downs
Aviation Unlimited	Aircraft Sales
San Diego Air Tours	Biplane Rides
Crownair Aviation (FBO)	Full Service 100LL/Jet-A, Self Service 100LL, Aircraft Maintenance, tie-downs
Gibbs Flying Service (FBO)	Full Service 100LL/Jet-A, Aircraft Maintenance, tie-downs
National Air College	Flight Training
San Diego Fire-Rescue Air Operations	Fire Fighting, Air Rescue, Patient Transport
ATP Flight School	Flight Training
Learn to Fly San Diego	Flight Training
San Diego Flight Training International	Flight Training
Coast Flight Training and Management	Flight Training, Aircraft Management
Armed Forces Aero Club	Flying Club
Plus One Flyers	Flying Club
Corporate Helicopters of San Diego	Helicopter Tours, Sales, Filming, Construction Projects
Four Points by Sheraton	Hotel
Marv Golden	Pilot Supplies
Casa Machado	Restaurant

Source: City of San Diego

Some of the tenants mentioned above occupy office space in the administration building including:

- San Diego Air Tours
- Casa Machado

Policies and Plans

To enhance operational efficiency, the Airports should develop, maintain, and implement a number of management documents. **Table 1.3** identifies the documents currently in place at the Airport as well as the date they were published.

Table 1.3 – Airport Management Documents

Document	Year
Master Plan Update (Most recent update prior to current version)	2004
Real Estate Assets Department Airports Division: Business Plan (FY 2017)[1]	2015
City of San Diego Airports: Operations, Policies, and Procedures	2015
City of San Diego Airports Division: Minimum Operating Standards (DRAFT)	2017
Hangar Policies	2017

1. Update in progress Source: City records, C&S Engineers, Inc.

The following is a brief description of the purpose and content of the documents listed above.

Master Plan: See introduction in **Section 1.1**. The last previously prepared Airport Master Plan for the Airport did not receive City Council approval. However, this effort did result in an FAA approved ALP.

Real Estate Assets Department Airports Division: Business Plan: The plan is intended to ensure that the City's Airports System is operated safely and efficiently, that it complies with all appropriate regulations, is financially self-sufficient, encourages airport business growth and opportunities, focuses on internal and external customers, maximizes the City's return on investment for airport property, and is managed by professional airport management staff. This plan is meant to be a "living and working" document that adapts as conditions change. This plan is updated each fiscal year.

City of San Diego Airports: Operations, Policies, and Procedures: This document is intended to guide day-to-day operations of the City of San Diego Airports. It is used by airport management to conduct the daily business of the City of San Diego Airports in an efficient manner, consistent with the policies of the FAA, the state of California, and the City of San Diego.

City of San Diego Airports Division Minimum Operating Standards: The purpose is to provide the threshold entry requirements (qualifications, levels of service, facilities, insurance) for those desiring to provide commercial aeronautical services to the public and to insure that those who have undertaken to provide commodities and services as approved are not exposed to unfair or irresponsible competition. They contain the minimum levels of service, facilities, staffing, insurance, and environmental compliance that must be met by the prospective service provider. The uniform application of these standards relates primarily to the public interest by discouraging substandard entrepreneurs and mandating insurance coverage levels, thereby protecting the Airport, airport patrons, and established aeronautical activities.

Hangar Policy: Published responses to common hangar ownership questions including insurance requirements, waiting list rules, applicable fees, and hangar subleases.

Airport Economic Benefits

In addition to serving as a vital community asset, airports provide an economic benefit to their communities through direct and indirect impacts. Direct impacts include those related to on-airport businesses and government agencies and those attributed to visitor spending and tourism. Indirect impacts mainly include the re-circulation of employees spending their earnings locally and the on-airport businesses purchasing goods and services locally.

As a whole, the air transportation sector in San Diego County was directly responsible for 1,926 jobs[4] in 2015. This includes a combination of scheduled air transportation, nonscheduled air transportation, and both freight and passenger transport. Countywide, air transportation generates total direct economic activity valued at about $742.6 million in industry output. In addition, air transportation directly accounts for over $130.8 million in labor income (both employee compensation and proprietor income). This total does not account for other jobs that are supported and facilitated by air transportation. This would include both suppliers and business-to-business vendors, and industries that rely on air transportation to bring customers and products into the San Diego regional market.

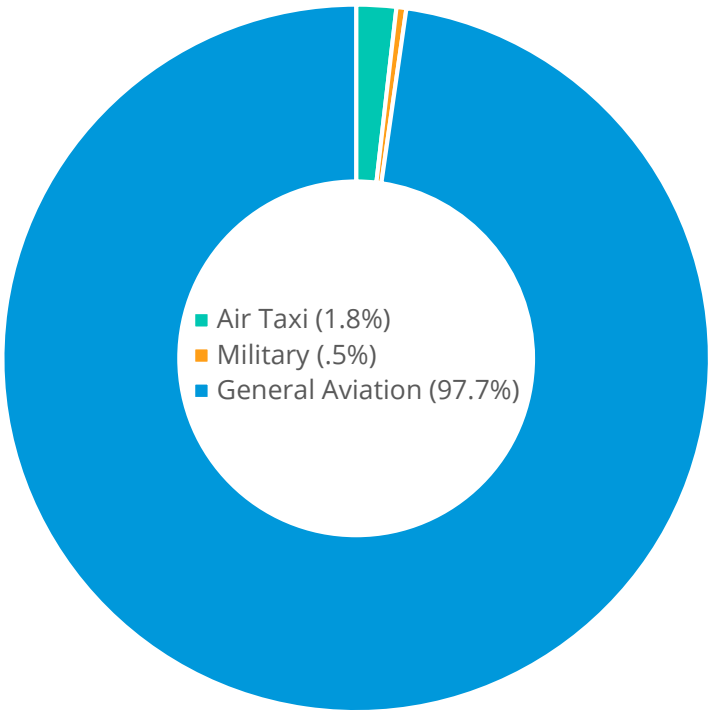
Airport-specific information will be provided under a subsequent section of the Airport Master Plan.

[4] ADE, Inc.; data from IMPLAN Pro input-output model, May 2017.

Existing and Historical Aircraft Operations

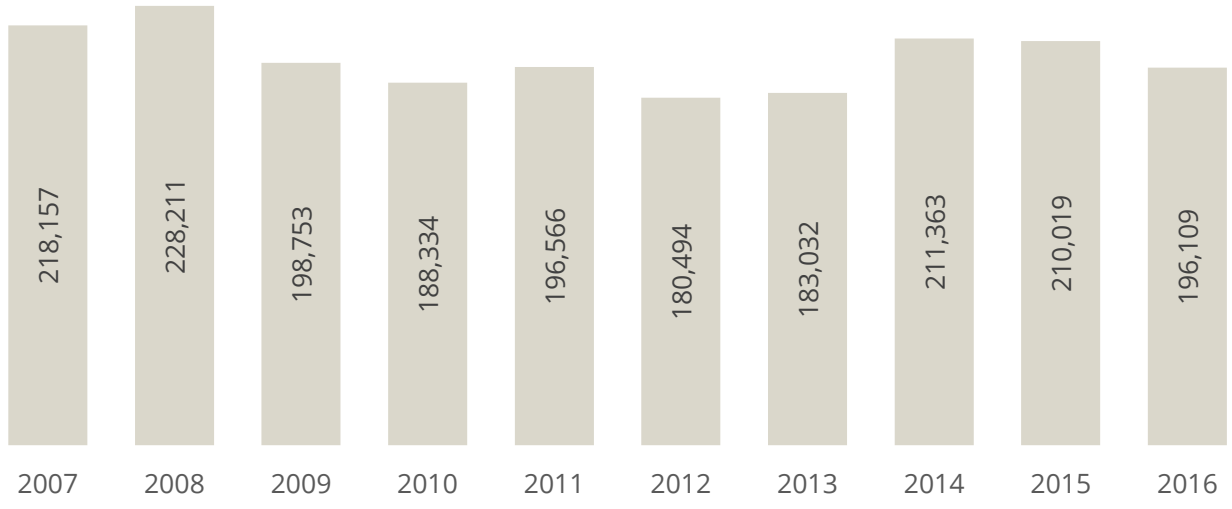
Historical aviation activity at the Airport was gathered using the FAA's Operations Network (OPSNET). The network includes the FAA Terminal Area Forecast (TAF), which provides historical and forecasted aircraft operational data. **Figure 1.9** breaks down aircraft operations from 2016 by user class. Historical activity levels by user class are summarized on **Figure 1.10** and **Figure 1.11**. The operations indicate a slight decrease in total aviation activity from the year 2007. General aviation operations continue, by a large majority, to be the largest user class generating activity. Air taxi and military operations reached a 10-year low point in 2011, but their 2016 levels have seen an increase of 62 percent and 181 percent respectively. Even with this gradual increase, they continue to account for only a small margin (less than three percent) of the total traffic.

Figure 1.9 – Existing Operations Split by Class



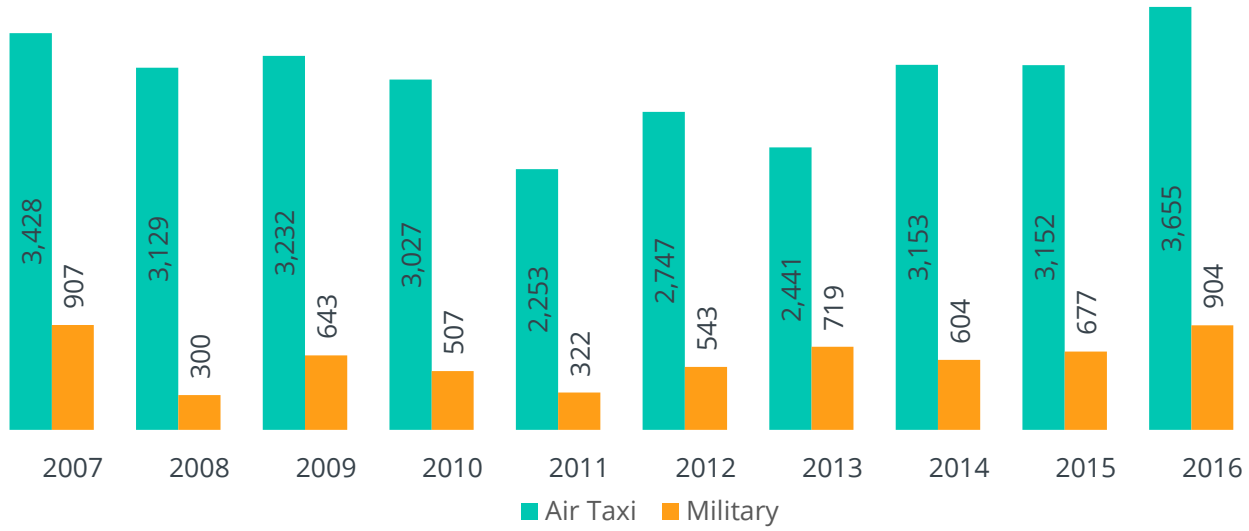
Source: FAA TAF, C&S Engineers, Inc.

Figure 1.10 – Historical and Existing General Aviation Operations



Source: FAA OPSNET data from 01/01/2007 to 12/31/2016. Air carrier operations were negligible (less than 15 per year) and combined with air taxi operations. C&S Engineers, Inc.

Figure 1.11 – Historical and Existing Air Taxi and Military Operations

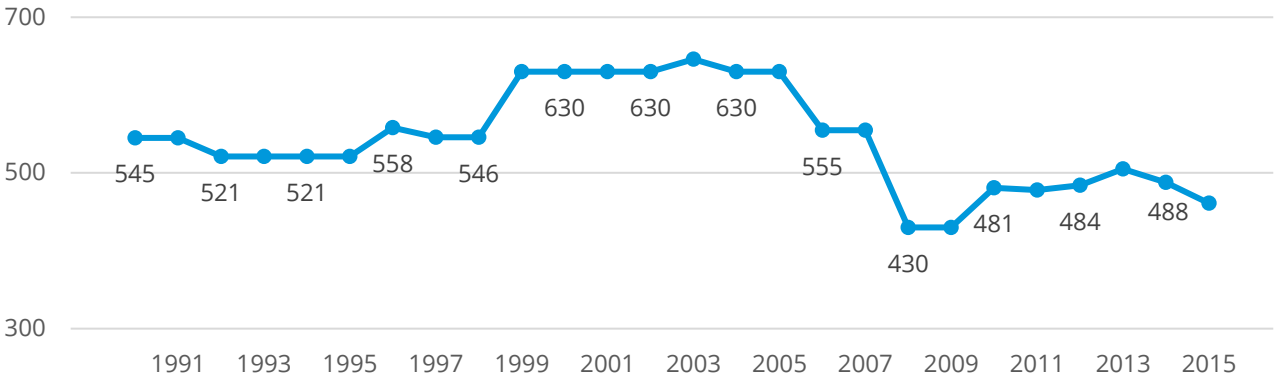


Source: FAA OPSNET data from 01/01/2007 to 12/31/2016. Air carrier operations were negligible (less than 15 per year) and combined with air taxi operations. C&S Engineers, Inc.

Historical and Existing Based Aircraft

A based aircraft is one that is based at the Airport either permanently or at least for the majority of the year. It is important to evaluate not only the number of aircraft based at the Airport, but the type of aircraft as well. Based aircraft, especially those owned by flight schools and flying clubs, can make up a large number of the aircraft operations. Historical based aircraft information for MYF was retrieved from the FAA TAF while current information was collected from the FAA National Based Aircraft Inventory Program. Historical based aircraft numbers are presented on **Figure 1.12**. As of 05/08/2017, MYF had 604 validated based aircraft. Approximately 83 percent of the based aircraft are single-engine (SE) piston aircraft.

Figure 1.12 – Historical Based Aircraft



Source: FAA TAF, C&S Engineers, Inc.

Historical aviation activity is documented in detail in this Master Plan as part of **Section 2 - Forecast**.

Fleet Mix and Critical Aircraft

The selection of the appropriate FAA airport design standards is based upon the critical aircraft, sometimes referred to as the design aircraft. The FAA has defined the critical aircraft as the most demanding aircraft or aircraft grouping by similar characteristics that performs, or is projected to perform, 500 annual operations at the airport facility. The previous ALP identified the Beechcraft King Air 200 as the critical aircraft for Runway 10L/28R and Runway 5/23. Runway 10R/28L is only 60-feet wide and unsuitable for use by aircraft the size of the King Air 200. It has been assigned a separate critical aircraft, the Cessna 421.

Aircraft Characteristics

The Beechcraft King Air 200 has a wingspan of 54.5 feet, a Maximum Takeoff Weight (MTOW) of 12,500 pounds (lbs.), and an approach speed of 97 knots (kts.). These specifications classify the King Air 200 in Approach Category B (approach speeds 91 knots or more but less than 121 knots) and Airplane Design Group II (aircraft with wingspans up to 49 feet but less than 79 feet and tail heights up to 20 feet but less than 30 feet). A sample of the based and transient aircraft as well as their characteristics is presented in **Table 1.4** and **Table 1.5**. Fleet mix will be covered in further detail under **Section 2 - Forecast**.

Table 1.4 – Based Aircraft Characteristics

Aircraft	Type	MTOW (lbs.)	Approach Speed (kts.)	Wingspan (ft.)	AAC	ADG
Cessna 172	SE	2,450	61	36.1	A	I
Cirrus SR22	SE	3,400	78	38.4	A	I
Beechcraft 200	Turboprop	12,500	98	54.5	B	II
Eclipse 500	Jet	5,950	90	37.25	A	I

Source: FAA Aircraft Characteristics Database, FAA National Based Aircraft Inventory Program, C&S Engineers, Inc.

Table 1.5 – Transient Aircraft Characteristics

Aircraft	Type	MTOW (lbs.)	Approach Speed (kts.)	Wingspan (ft.)	AAC	ADG
Embraer Phenom 100	Jet	10,582	112	40.0	B	I
Cessna XLS+	Jet	20,200	111	56.0	B	II
Beechcraft 350	Turboprop	15,000	107	57.9	B	II
Beechcraft 1900	Turboprop	17,120	113	58	B	II

Source: FAA Aircraft Characteristics Database, FAA Operations Network (OPSNET), C&S Engineers, Inc.

1.5 Regional Setting and Land Use

The following sections provide information regarding land use, zoning, land use compatibility, consistency with other plans, and the Airport's climatological setting.

Land Use

Land uses surrounding the Airport were inventoried to understand existing compatibility. **Figure 1.13** presents the variety of land-uses surrounding the Airport. Land use shape files were retrieved from the San Diego Regional Planning Associations website. Land use immediately to the north of the airport property boundary is mostly industrial with a pocket of residential directly north of the Runway 23 threshold. To the east of the property, there is a mix of industrial, public-use, and open space. On the eastern side of Interstate 15 (I-15), approximately .5 miles from the Airport boundary, land use is mostly residential. The land uses directly south of MYF are industrial and public-use, with a large amount of residential use beginning roughly 500 feet from the property line. To the west of the Airport (west of California State Route 163) are mostly industrial and commercial land uses with some residential land use located between Ruffner Street and Interstate 805 (I-805). West of I-805 is predominately-residential land use.

As indicated by guidance provided in FAA Advisory Circular (AC) 150/5070-6B, *Airport Master Plans*, public facilities within the vicinity of the Airport were identified and are presented in **Table 1.6**.

Table 1.6 – Public Facilities within ½ Mile of MYF

Facility	Direction from Airport
Fire Station	
San Diego Fire-Rescue Department: Station 28	West
Library	
Serra Mesa-Kearny Mesa Branch Library	South
Police Station	
San Diego Police Department: Traffic Division	Southeast
Schools	
Coleman University	North
Brightwood College	North
National University	Southwest
San Diego Community College District North Campus	South
Angier Elementary School	South
Wegeforth Elementary School	South
St. Columbia Catholic School	South
Soille San Diego Hebrew Day School	South
Coleman Tech Charter High School	South
Rock School of Ministry	Southeast
Kavod Elementary School	Southeast
University of Phoenix, San Diego	East
Grace Christian School	East
Places of Worship	
New Life Church	Northwest
Korean Hope Church	Northwest
San Diego Christian Worship	Northeast
Flood Church	East
Saint Columbia Catholic Church	South
San Diego Korean Cathedral	South
Pacific Hope Church	South
Door of Hope Christian Church	South
Gracewave Church	South
Afghan Community Islamic Center	South
Grace Brethren Church-Kearny	Southwest

Source: San Diego Regional Planning Association, C&S Engineers, Inc.

Montgomery-Gibbs
Executive Airport

Source: SanGIS/SANDAG GIS Data Warehouse, C&S Engineers, Inc.

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Figure 1.13
Surrounding Land Use

Legend

- Residential
- Industrial Employment
- Institutional & Public and Semi-Public Facilities
- Commercial
- Park, Open Space, & Recreation
- Street & Highway System
- Airport Property Line
- Fire Station
- Hospital
- Library
- Police Station
- Post Office
- School
- Place of Worship

500' 0' 500' 1000'

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Zoning

The City of San Diego General Plan classifies the Airport as "unzoned" indicating that it falls under a separate set of rules than other land uses. Guidance relating to off-airport land-use compatibility is contained in the Airport Land Use Compatibility Plan (ALUCP). Zoning surrounding the Airport is depicted on **Figure 1.14**.

Montgomery-Gibbs Executive Airport ALUCP

Airport land use compatibility plans are established in order to promote compatibility between airports and the surrounding land uses. In San Diego County, the Board of the SDCRAA is responsible for producing these plans for all public-use and military airports. The purpose of the plan is to provide for the orderly development of the Airport and the surrounding community, as well as to safeguard the general welfare of the inhabitants within the vicinity of the Airport and the public in general[5]. The plan identifies Airport Influence Areas (AIA) and has specific requirements to be followed by local agencies when development is proposed within these areas. The ALUCP is based on the ALP most recently approved by the FAA. Any changes to the ALP occurring as a result of this master planning process will be reviewed by the Airport Land Use Commission (ALUC) to determine potential impacts to the ALUCP.

Community Plans

The City of San Diego is broken up into various communities, each with their own planning group, community plans, and/or regulations. The Airport is referenced and potentially affected by the community plans of three surrounding neighborhoods including Serra Mesa, Kearny Mesa, and Clairemont Mesa.

Kearny Mesa Community Plan

The plan recognizes that while the Airport is technically within the boundaries of the Kearny Mesa planning area, the land use policies are contained in the ALUCP. This plan requires that any proposed development be reviewed for compatibility with both MYF and the Marine Corps Air Station Miramar, per the specifications in the ALUCP. The main concerns of the community include aircraft noise, approach patterns, crash hazards, and future airport expansion.

Serra Mesa Community Plan

While the Airport does not fall within the limits of the Serra Mesa planning area, arriving and departing aircraft pass overhead and thus the Airport is discussed in the plan. The concerns stated in the plan include noise, approach patterns, and crash hazards. The plan recognizes that while aircraft noise levels may not exceed federal and state recognized annoyance level standards it is still an important issue to residents.

Clairemont Mesa Community Plan

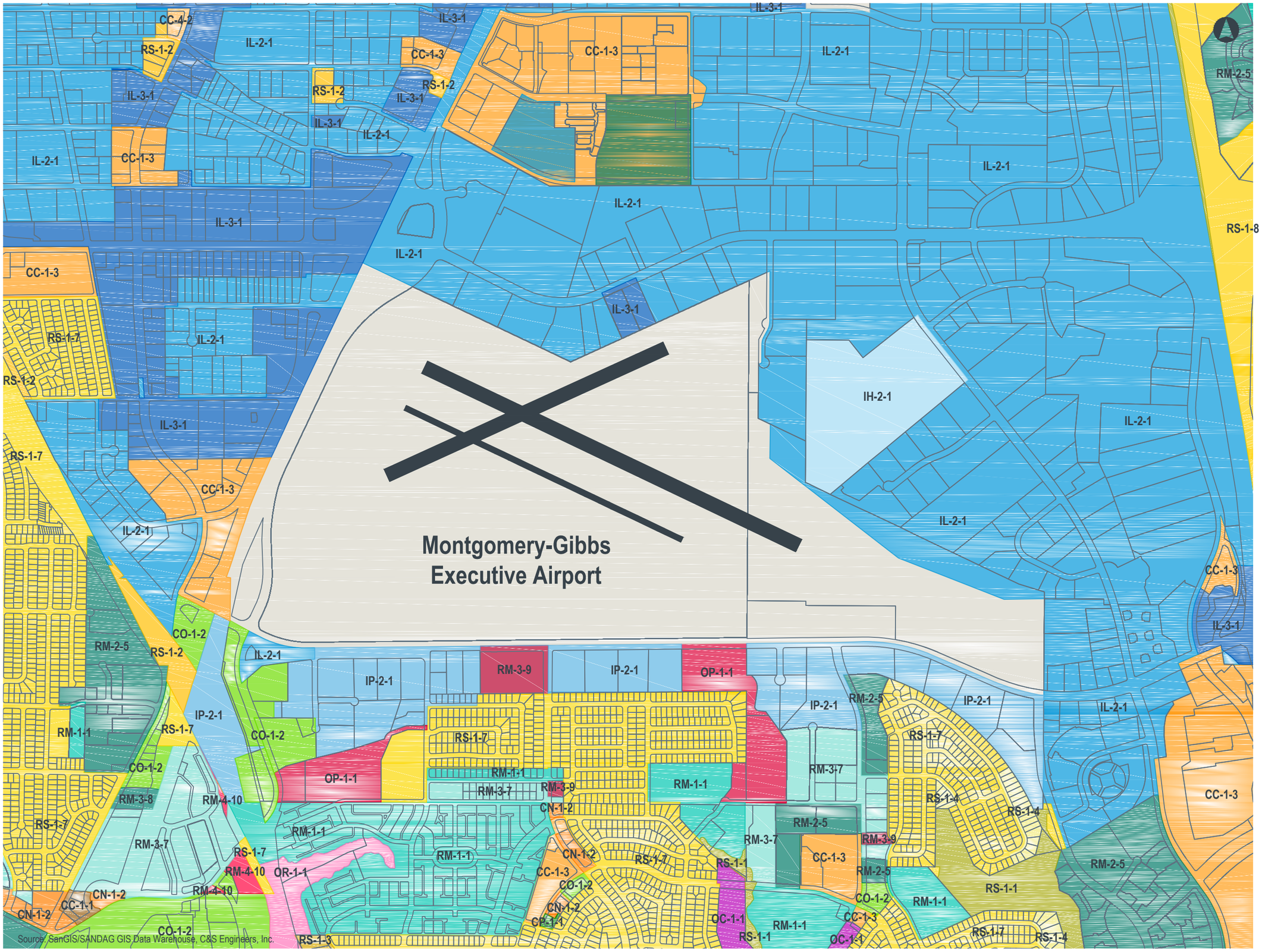
The Clairemont Mesa Community Plan is similar to the Serra Mesa plan in that it is affected by the Airport even though MYF is outside of the official planning area. The main concerns of the community regarding the Airport are noise and potential crash hazards. It refers to the MYF ALUCP for development regulations for both airport development and any development in the designated AIAs.

5 2010, *Montgomery Field Airport Land Use Compatibility Plan*

Airports

Montgomery-Gibbs Executive Airport Master Plan

Figure 1.14
Surrounding Zoning



Source: SanGIS/SANDAG GIS Data Warehouse, C&S Engineers, Inc.

Legend[1]

- CC-1-1
- CC-1-3
- CC-4-2
- CN-1-2
- CO-1-2
- CP-1-1
- IH-2-1
- IL-2-1
- IL-3-1
- IP-2-1
- OC-1-1
- OP-1-1
- OR-1-1
- RM-1-1
- RM-2-5
- RM-3-7
- RM-3-8
- RM-3-9
- RM-4-10
- RS-1-1
- RS-1-2
- RS-1-3
- RS-1-4
- RS-1-7
- RS-1-8
- Unzoned

1. Refer to the City of San Diego Municipal Code, Chapter 13 for descriptions of each zoning designation.

500' 0' 500' 1000'

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Climate and Topography

The Airport is situated in the Kearny Mesa community of San Diego at an elevation of 427.3 feet above mean sea level (MSL). As the name Mesa implies, the area is generally level and is surrounded by steep walled valleys. The climate is classified as semi-arid and often referred to as Mediterranean. Proximity to the Pacific Ocean results in warm summers and mild winters.

There is an Automated Surface Observing System (ASOS) based at the Airport that gathers basic minute-by-minute, 24-hour weather information to be used for weather reporting. According to the Summary of Monthly Normals from 1981-2010, the mean maximum temperature of the hottest month is 80.9°F in the month of August while the mean minimum temperature was 44.3°F in the month of January. January, the wettest month, sees an average of 2.68 inches of precipitation and accounts for 21.4 percent of the average annual precipitation of 12.51 inches. See **Table 1.7** for a summary of the temperature and precipitation averages.

Table 1.7 – Temperature and Precipitation

Hottest Month	August (80.9°F mean maximum temperature)
Coldest Month	January (44.3°F mean minimum temperature)
Mean Annual Temperature	63.0°F
Wettest Month	January (Average 2.68 inches rainfall)
Mean Annual Precipitation	12.51 inches

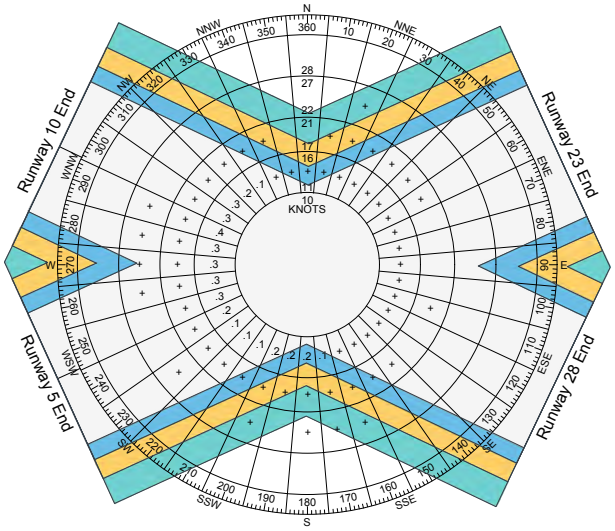
Source: National Climatic Data Center, 1981-2010 Normals, C&S Engineers, Inc.

Wind Coverage

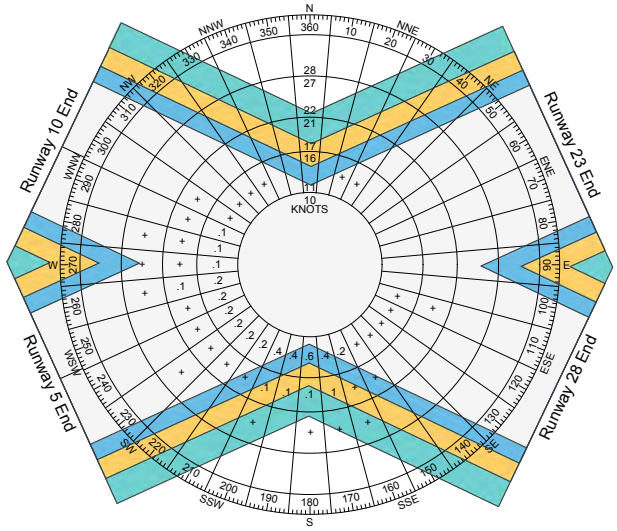
The FAA provides guidance in FAA AC 150/5300-13A, *Airport Design*, on determining whether the existing runway orientation is sufficient for the fleet mix. The process was followed below.

A wind analysis was conducted using historical wind data obtained from the National Oceanic and Atmospheric Administration (NOAA) National Climatic Data Center (NCDC). Observations for this data were taken at the Airport over the 10-year period from 2006 to 2016. The Airport Reference Code (ARC) dictates maximum crosswind components. The ARC signifies the design standards to which an airport is built. The ARC at the Airport is a B-II, which has a maximum allowable crosswind component of 13 knots. However, numerous planes use the Airport that have a maximum crosswind component greater than 13 knots and so the percent coverage has been shown up to 20 knots. The wind roses for the Airport as well as the percent coverage for each weather condition are presented on **Figure 1.15**. There is a wind rose presented for three weather conditions; All Weather, Instrument Flight Rules[6] (IFR), and Visual Flight Rules[7] (VFR). The numbers in each box indicate the number of wind readings that were registered at that speed and direction. If there is a plus sign, it indicates that less than 100 readings have been recorded at that specific speed and direction. A crosswind runway is recommended when an airport's primary runway orientation provides less than 95 percent wind coverage. Due to the Airport's existing crosswind runway, the percent wind coverage is sufficient under All Weather, VFR, and IFR conditions.

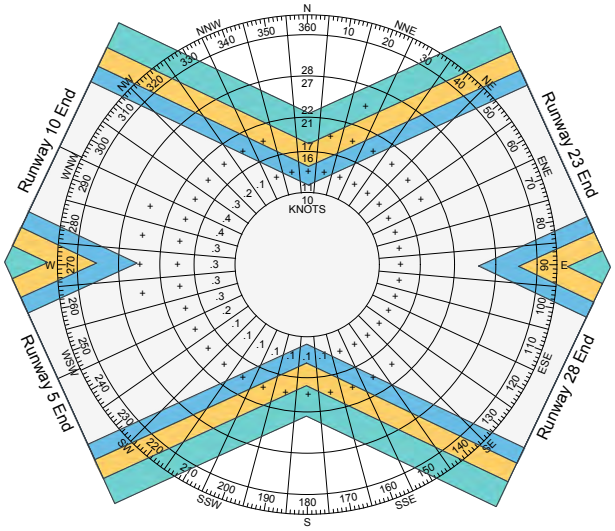
6 IFR apply when visibility is poor and cloud ceilings are low. The term IFR refers to a set of rules governing the conduct of flight under instrument meteorological conditions (IMC) where pilots rely on instrumentation to navigate.
7 VFR apply when weather is clear (cloud ceiling greater than 3,000 feet above ground level and visibility greater than five statute miles)



All Weather Wind Coverage			
	Percent Coverage		
Crosswind Component	Runway 10/28	Runway 5/23	Combined
10.5 Knots	98.65%	98.42%	99.49%
13 Knots	99.35%	99.31%	99.82%
16 Knots	99.89%	99.91%	99.96%
20 Knots	99.98%	99.99%	100.00%



IFR Wind Coverage			
	Percent Coverage		
Crosswind Component	Runway 10/28	Runway 5/23	Combined
10.5 Knots	97.11%	97.85%	98.39%
13 Knots	98.43%	98.88%	99.34%
16 Knots	99.57%	99.74%	99.84%
20 Knots	99.92%	99.96%	99.99%



VFR Wind Coverage			
	Percent Coverage		
Crosswind Component	Runway 10/28	Runway 5/23	Combined
10.5 Knots	98.97%	98.58%	99.69%
13 Knots	99.53%	99.41%	99.91%
16 Knots	99.94%	99.93%	99.99%
20 Knots	99.99%	99.99%	100.00%

SD Airports

Montgomery-Gibbs Executive Airport Master Plan

Figure 1.15

Runway Wind Coverage

Source: Data reported at MYF for the period between 2007-2016 and provided by the National Oceanic & Atmospheric Administration, National Climatic Data Center. C&S Engineers, Inc.

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1.6 Airside Facilities

Airside facilities include those that directly support airport operations including runways, taxiways, NAVAIDS, and apron areas. A diagram of MYF's runways and taxiways is shown on **Figure 1.16. Table 1.8** provides a summary of the existing airside facilities that are described in the subsequent text.

Runways

The airfield consists of three paved runways, one 4,598-foot runway with a precision approach, a 3,401-foot parallel runway, and a 3,400-foot crosswind runway. The details and characteristics of each runway are described in **Table 1.8**. A Pavement Maintenance Management Plan (PMMP) was completed for MYF in February 2018 that provided an analysis of the current pavement condition. According to the PMMP report, the overall average pavement condition index (PCI) for the runways at MYF is 85. The PCI is a numerical pavement condition rating that ranges from 0 (failed pavement) to 100 (pavement in perfect condition). Based on Figure 3-4 2017 Pavement Condition Index Map in the PMMP report (see **Appendix H**), both Runways 10L/28R and 5/23 are in good condition whereas a portion of Runway 10R/28L is in poor condition. Additional information about each of the individual components will be discussed in subsequent sections.

Table 1.8 – Runway System Characteristics

Characteristics	Runway 10L/28R	Runway 10R/28L	Runway 5/23
Use	Primary	Secondary	Crosswind
Length x Width (feet)	4,598 x 150	3,401 x 60	3,400 x 75
Displaced Threshold (feet)	N/A / 1,199	N/A	390 / N/A
Condition	Good[1]	Good[1]	Good[1]
Pavement Condition Index		85[1]	
Pavement Condition Number	35[1]	43[1]	55[1]
Pavement Strength (pounds) **Single Wheel** **Dual Wheel** **Tandem**	12.0 SWL[1]	12.0 SWL[1]	12.0 SWL[1]
Composition	Asphalt	Asphalt	Asphalt / Treated
Wind Coverage (All Weather) **13 knots**	99.35%	99.35%	99.53%
Markings	Basic / Precision	Basic / Basic	Basic / Basic
Edge Lighting	MIRL	N/A	N/A
Approach Lighting	PAPI / MALSR, PAPI	N/A / REIL	N/A
Instrument Approaches	None / ILS,LOC,GPS	N/A	N/A

Source: FAA Airport Master Record Form 5010 (Chart Supplement EFF 03/02/2017) and C&S Engineers, Inc.

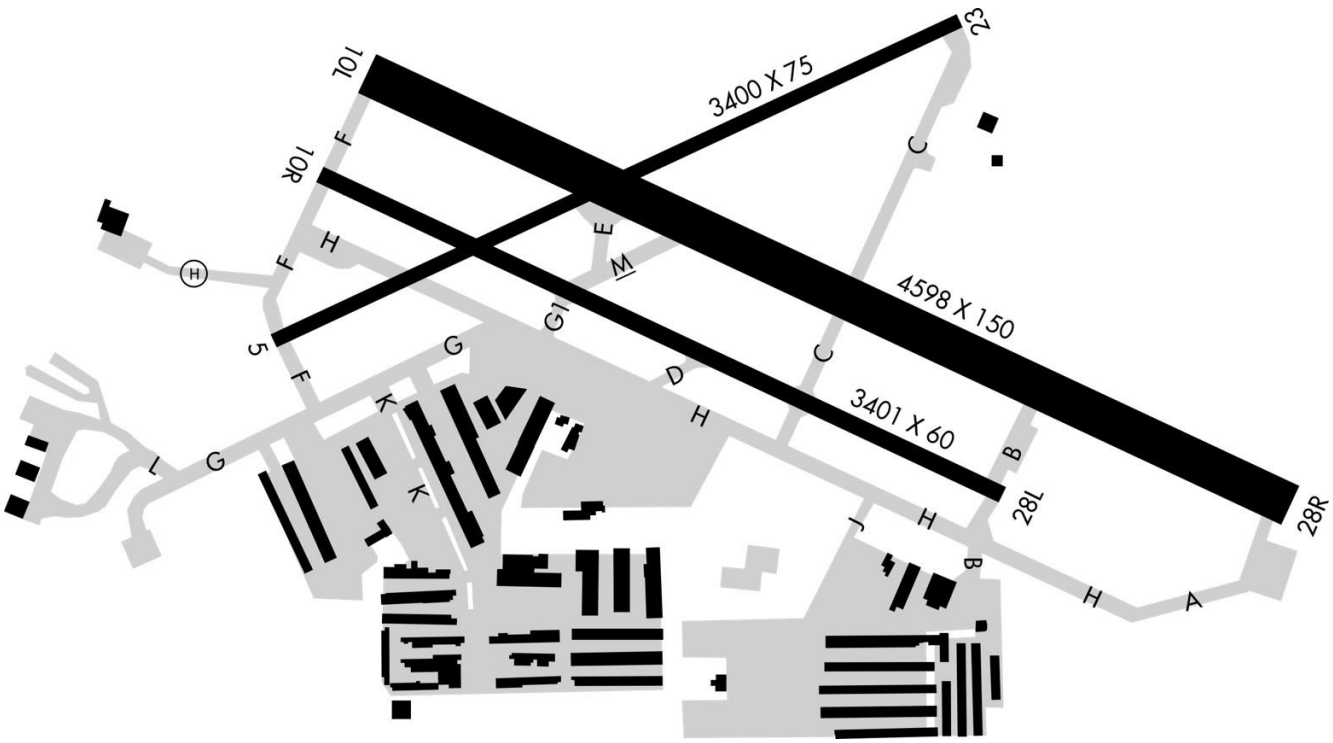
[1]Pavement strength and condition were evaluated as a part of a Pavement Maintenance Management Plan (PMMP) which will be included in this report as Appendix H. The PCI is representative of the average pavement condition of all three runways.

As part of City Resolution 280194, an administrative restriction was placed on all runways at MYF limiting the operation of aircraft above 20,000 lbs. maximum gross certified takeoff weight. However, the restriction prescribed no mechanism that could be utilized by the City for its enforcement. The weight restriction will be further evaluated as part of the master planning process.

Taxiways

Runways 10L/28R and 10R/28L share a full-length parallel taxiway while Runway 5/23 is served by a partial length parallel taxiway. The airfield is also developed with a network of connectors and cross-field taxiways equipped with medium intensity taxiway edge lights (MITL). All the taxiways meet the ARC B-II standard separation of 240-feet from runway to taxiway centerline. Both the taxiway and runway locations can be viewed on **Figure 1.16** while **Table 1.9** lists the characteristics of each taxiway. According to the 2018 PMMP report, the average PCI values for the taxiways present at MYF is 71. A PCI rating of 70-100 represents pavement in good condition. Majority of the taxiway pavement found at the Airport is in good condition; however, the PMMP report states that the northern portion of Taxiway Charlie was milled and overlaid with non-standard asphalt surface material making the visual inspection of the pavement insufficient.

Figure 1.16 – MYF Airfield



Source: FAA Chart Supplement

Table 1.9 – Taxiway Width

Taxiway	A	B	C	D	E	F	G	G1	H	J	K	L	M
Width (feet)	50	50	50	40	50	50	50	50	40	40	40	40	50

Source: C&S Engineers, Inc., Google Earth 2016

Displaced Threshold

A displaced threshold is placed at the end of a runway with the purpose of changing the point at which an approaching aircraft will touch down on the runway. They are generally put in place in order to move the approach path of an aircraft away from an obstruction, such as a tower or building, that penetrates the FAA defined threshold-siting[8] surface. The portion of the runway marked as a displaced threshold is permitted to be used during takeoff, but not during landing. See **Figure 1.17** for a graphical depiction of a displaced threshold.

The Runway 28R threshold is displaced 1,199 feet and the Runway 5 threshold is displaced 390 feet. The displaced threshold was placed on the end of Runway 28R in 1995 when the runway was extended. The intent of the displaced threshold was to increase the length of runway available for takeoff, but keep the landing distance the same. According to City Resolution 280194,[9] keeping the landing threshold at the current location would allow the Airport to continue to accommodate the existing aircraft fleet mix while limiting the use of larger aircraft that may not comply with previously established noise and weight limitations. As noted in the Serra Mesa Community Plan,[10] increasing the available takeoff distance would also allow departing aircraft to achieve a higher altitude prior to passing over residential areas.

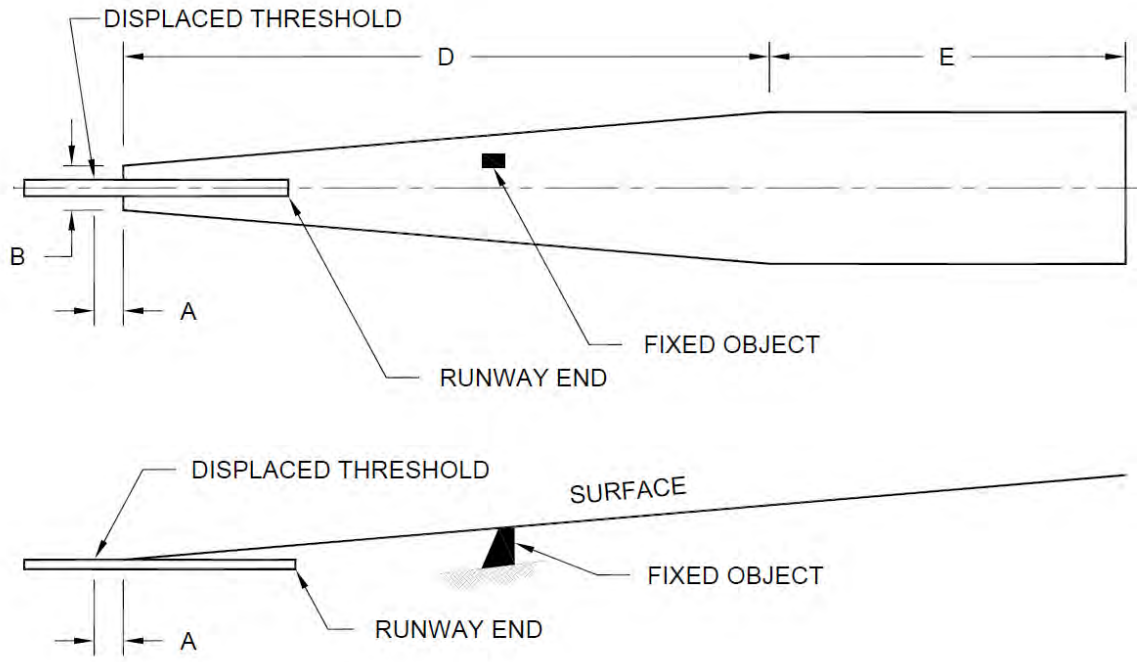
A review of historical records found no explanation as to why the Runway 5 landing threshold was displaced. It was likely added to avoid obstructions or provide additional space between the existing hangar development located south of Runway 5 and the landing threshold.

[8] The dimensions of the threshold-siting surface (TSS) are presented in Table 3-2 of FAA AC 150/5300-13A, *Airport Design*.

[9] City Resolution 2800914/ R-92-2009, June 22, 1992.

[10] *Serra Mesa Community Plan*, The Serra Mesa Community Planning Group and City of San Diego Planning Department, amended 2011.

Figure 1.17 – Plan and Profile Views of an Example Displaced Threshold



Source: FAA AC 150/5300-13A, *Airport Design*

Safety Areas and Object Free Areas

Runways and taxiways are surrounded by imaginary rectangular areas known as "safety areas" and "object free areas". The purpose of these areas is to minimize the probability of serious damage to aircraft that accidentally leave designated movement areas as well as to provide greater accessibility for firefighting and rescue equipment during such incidents. These areas require grading between one percent and five percent and must remain free of obstructions to enhance the safety of aircraft that undershoot, overrun, or veer off a runway or taxiway.

The Runway Design Code (RDC) specifies runway design standards applicable to each runway. The RDC consists of three components related to the operational demands of aircraft:

- Aircraft Approach Category (AAC) – approach speed
- Airplane Design Group (ADG) – wingspan and tail height
- Runway Visibility Range (RVR) - visibility minimums

The current ALP, last revised 1/10/2014, was completed prior to the most recent update to FAA AC 150/5300-13A, which established the above definition for RDC. Therefore, the ALP does not identify RDCs for each runway but lists separate ARCs (i.e., the RDC minus the approach visibility minimum). The ARCs for Runway 10L/28R and Runway 5/23 are listed as B-II. The ARC of Runway 10R/28L is identified as B-I. Based on the most current version of FAA AC 150/5300-13A, the ARC combined with the approach visibility minimums, determines the dimensions of the Runway Safety Area (RSA), Runway Object Free Area (ROFA), and Runway Protection Zones (RPZ). The dimensions of the Taxiway Safety Area (TSA) and Taxiway/Taxilane Object Free Areas (TOFA) are determined by the ADG of the critical aircraft, in this case, ADG II.

Table 1.10 lists the standard dimensions of the RSA, ROFA, TSA, and TOFA. Note that although the 2014 ALP listed Runway 10R/28L as an ARC of B-I, the critical aircraft used would qualify as "small" due to its MTOW below 12,500 pounds. The applicable small aircraft standards from FAA AC 150/5300-13A were therefore applied. **Section 3 – Facility Requirements** will look at each of these areas in greater detail to determine compliance with the most up-to-date FAA standards.

Table 1.10 – Runway and Taxiway Safety Area Dimensions (per Standards)

	Runway 10L/28R	Runway 10R/28L	Runway 5/23
Runway Safety Area			
Length Beyond Runway End	600'	240'	240'
Length Prior to Threshold	600'	240'	240'
Width	300'	120'	120'
Runway Object Free Area			
Length Beyond Runway End	600'	240'	240'
Length Prior to Threshold	600'	240'	240'
Width	800'	250'	250'
Taxiway Safety Area			
Width	79'	79'	79'
Taxiway Object Free Area			
Width	131'	131'	131'
Taxilane Object Free Area			
Width	115'	115'	115'

Source: FAA AC 150/5300-13A, *Airport Design*, C&S Engineers, Inc.

Runway Protection Zones

As defined by FAA AC 150/5300-13A, the function of the Runway Protection Zone is to enhance the protection of people and property on the ground. This is best achieved by airport sponsor acquisition of property located within the RPZ and clearing it of incompatible land uses and obstructions. The RPZ is a trapezoidal shape centered on and extending out from the runway centerline. The type of aircraft that the runway accommodates as well as the approach visibility minimums determines the dimensions of an RPZ. Each runway has a separate approach and departure RPZ whose dimensions are identical unless visibility minimums are lower than one mile (which is the case for Runway 28R). RPZ dimensions for each runway end are outlined in **Table 1.11**.

Recently, hangars located within the Runway 23 departure RPZ were relocated to comply with FAA design standards.

Table 1.11 – MYF Runway Protection Zones (RPZ) (per Standards)

	Runway 10L		Runway 28R		Runway 10R/28L		Runway 5/23	
	Approach	Departure	Approach	Departure	Approach	Departure	Approach	Departure
Length	1,000		2,500	1,000	1,000		1,000	
Inner Width	500		1,000	500	250		250	
Outer Width	700		1,750	700	450		450	

Source: FAA AC 150/5300-13A, *Airport Design*, C&S Engineers, Inc.

Lighting and Navigational Aids (NAVAIDS)

Visual navigational aids are important for aircraft operating under VFR and IFR. The visual NAVAIDS at the Airport are documented on the following pages.



Wind Cone between Runways 10L/28R and 10R/28L

Wind Cone

A wind cone is a conical textile tube that provides pilots with a visual indication of wind direction and velocity. The Airport has the following wind cones in good condition:

- Between Runways 10L/28R and 10R/28L
- West of Taxiway J

Segmented Circle

A segmented circle is a visual aid designed to provide information about the traffic pattern to aircraft overhead. It is often co-located with a wind cone, as is the case at MYF. It is in good condition

Airport Beacon

A rotating beacon assists pilots in identifying the Airport at night. As a civilian airport, the beacon alternates between white and green flashing lights. The MYF beacon is located in the southwest corner of the administration building parking lot and is in poor condition.

Medium Intensity Approach Lighting System

A Medium Intensity Approach Lighting System with Runway Alignment (MALSR) is installed on the Runway 28R end. This involves a configuration of lights positioned uniformly along the extended runway centerline to provide visual guidance to an aircraft approaching to land on a precision instrument approach procedure. The brightness of the MALSR is controllable by pilots during hours when the ATCT is non-operational. There is a MALSR installed on the Runway 28R end to supplement the ILS approach. The MALSR is in good condition

Runway End Identifier Lights

Runway End Identifier Lights (REILs) are installed at an airfield to provide rapid and positive identification of the approach end of a particular runway. The system consists of a pair of synchronized flashing lights located laterally on each side of the runway threshold. REILs are installed on the Runway 28L end and are in good condition.



Runway 28R PAPI

Precision Approach Path Indicator

A Precision Approach Path Indicator (PAPI) provides visual approach slope guidance during aircraft landing operations. The PAPI system consists of four light units, located adjacent to the runway and perpendicular to the runway centerline. PAPIs were recently installed on both the Runway 10L and Runway 28R ends. They are both in good condition.

Runway and Taxiway Edge Lighting

All taxiways are equipped with MITL. The Airport has several different runway lighting systems to facilitate operations at night or during periods of low visibility. A summary of runway lighting is presented in **Table 1.12**. Additional information on the condition of airfield lighting will be provided in **Section 3 – Facility Requirements**.

Table 1.12 – Runway Lighting

✓ = Available		× = Unavailable	
	10L / 28R	10R / 28L	5 / 23
MIRL[1]	✓ / ✓	× / ×	× / ×
MALSR	× / ✓	× / ×	× / ×
REIL	× / ×	× / ✓	× / ×
PAPI	✓ / ✓	× / ×	× / ×

Source: FAA Airport Master Record Form 5010, C&S Engineers, Inc.

Notes: 1. Medium Intensity Runway Lighting (MIRL)

Instrument Approach Procedures and Electronic Aids to Navigation

An instrument approach procedure (IAP) provides an aircraft transition from the en route flight environment to a point from which a safe landing may be accomplished. When cloud ceilings are low and visibility is poor, pilots use IAP's to land. Electronic NAVAIDS are utilized through instrumentation in the aircraft as a part of en route navigation and IAP's. Runway 28R is the only runway that offers an instrument approach and as such is the only runway with dedicated electronic NAVAIDS. **Table 1.13** lists the IAPs available at the Airport and the associated minimums. The electronic NAVAIDS available to pilots operating at the Airport include the following:

Instrument Landing System (ILS)

An Instrument Landing System (ILS) is an electronic ground-based system that provides both lateral and vertical guidance to an aircraft approaching and landing on a runway during periods of low ceilings and/or reduced visibility. The Glide Slope (GS), Localizer (LOC), and Distance Measuring Equipment (DME) are all electronic components that make up the ILS. Runway 28R is the only runway equipped with an ILS at the Airport.

Area Navigation (RNAV) / GPS



Runway 28R Localizer Antenna

Area navigation is the precursor to Global Positioning System (GPS) and uses a network of satellites and land stations to create reference points that allow users with the proper receivers to determine their position in the sky. GPS navigation can now provide highly accurate navigational data based on satellites alone. This is hugely beneficial to airports because it allows them to have an IAP without installing expensive ground-based instrumentation. The Airport currently has one published straight-in RNAV (GPS) approach to Runway 28R as well as circling approaches available for the other runways.

Table 1.13 – MYF IAPs and Minimums

		Aircraft Approach Category Altitude (feet MSL)/Visibility (statute miles)	
Procedure	**Category**	**A**	**B**
ILS or LOC RWY 28R	S-ILS 28R	623-½	
	S-LOC 28R	800-½	
	Circling	880-1	
RNAV(GPS)RWY 28R	LPV	623-½	
	LNAV/VNAV	750-¾	
	LNAV	840-½	
	Circling	880-1	

Source: Approach plates valid 02 MAR 2017 to 30 MAR 2017, C&S Engineers, Inc.

Additional Equipment

The following equipment also serves the Airport:

Automated Surface Observing System

The ASOS is a weather-sensing suite designed to serve aviation and meteorological observing needs for safe and efficient aviation operations, weather forecasting, and climatology. The Airport's ASOS is located in the area between Runway 10L/28R and Runway 10R/28L.



ASOS

Airfield Electrical Vault

The Airfield Electrical Vault is located on the apron, north of the administration building and directly west of the Aviation Unlimited building. It is in good condition.

Aircraft Hangars and Parking Areas

As documented in **Appendix A**, the Airport has several leaseholders that offer both hangars and tie-down storage for based and transient aircraft use. **Table 1.14** lists the different parking areas and the number of spaces available at each.

Table 1.14 – Aircraft Hangars and Parking Areas

Lease Title / Area	Based / Transient	Tie-downs	T-Hangars	Box Hangars	Large Box Hangars (more than 1 aircraft)	Total
Coast Air	Based	4	36	1	1	**42**
Crownair	Both	N/A	-	16	26	**42**
Flattop East	Based	1	43	5	-	**49**
Flattop West	Based	8	21	3	1	**33**
Gibbs Aviation Services	Both	171	92	7	2	**272**
Marigold Spots	Based	1	25	1	-	**27**
National Air College	Based	45	24	20	1	**90**
Spiders - Sorbi	Both	N/A	-	-	2	**2**
City Tie-downs	Both	30	-	-	-	**30**
Total		**260**	**241**	**53**	**33**	**587**

Source: C&S Engineers, Inc. Parking positions determined on Google Earth imagery dated 11/08/2016

Information specific to each lease area, including current challenges, can be found in **Appendix A**.



Aircraft Parking Apron in front of the Administration Building

Airfield Signage and Markings

Airfield signage and markings are used for navigational and safety purposes. The following examples are found at the Airport.

Directional Signage

The Airport is equipped with location signs on all taxiways and at all runway ends and runway crossings. All of the signs are lit with the exception of those on Runway 5/23 and Taxiway C, north of Runway 10L/28R.

Informational Signage

Informational signage is in place to notify pilots and other users of important information such as tower or ground control frequencies, procedures, and hazards.

Airfield Markings

Airfield pavement markings provide information that is useful during aircraft takeoff, landing, holding, and taxiing. Examples of airfield markings include runway hold positions, non-movement area boundaries, and taxiway edge markings.



Taxiway Signage

Airspace and Air Traffic Control

The ATCT is located in the northeast corner of the airfield and provides Air Traffic Control (ATC) services to the airport users. It is operational between the hours of 6:00 a.m. and 9:00 p.m. daily.

Aircraft navigate under VFR or IFR. VFR govern procedures when weather is greater than FAA specified minimums. To fly under VFR at MYF the visibility must be greater than three statute miles (SM) and the aircraft must remain 500 feet below, 1,000 feet above, or 2,000 feet horizontally clear of clouds. Flights operated under VFR navigate using a mixture of visual cues and instrumentation. They are not required to contact ATC unless entering controlled airspace. The term IFR refers to the set of rules governing conduct of flight under instrument meteorological conditions (IMC) where pilots rely solely on their instrumentation to navigate and are required to be in contact with ATC.

Whether a pilot flies under VFR or IFR depends on the weather conditions and the class(es) of airspace that will be flown through. The National Airspace System (NAS) is run and maintained by the FAA and categorizes airspace into the following classes (A, B, C, D, E, and G). Each class has specific requirements, restrictions, and dimensions. See **Figure 1.18** for a simplified example of the different types of airspace.

Figure 1.18 – Airspace Classification



Source: FAAsafety.gov, C&S Engineers, Inc.

When the ATCT is in operation, the airspace surrounding MYF is designated as Class D. It begins at the surface, extends to 2,900 feet MSL, and surrounds the Airport with a five SM radius. The MYF Class D airspace is superseded by the Miramar MCAS Class B airspace approximately two miles to the north and the SAN Class B airspace, approximately three miles to the south. Class E airspace exists from 2,901 feet MSL to 4,799 feet MSL. Class B airspace begins at 4,800 feet MSL and continues to 10,000 feet MSL. Class E fills in the space between the end of Class B and the beginning of Class A at 18,000 feet MSL.

Class B airspace surrounds the nation's busiest airports. It begins at the surface and generally extends to 10,000 feet MSL. It consists of different layers of varying size and is often described as resembling an upside down wedding cake. Entrance into Class B airspace requires prior clearance from ATC. The close proximity of two Class B airports, Miramar MCAS and SAN, creates a complex combination of airspace surrounding MYF. **Figure 1.19** depicts the airspace environment surrounding the Airport.

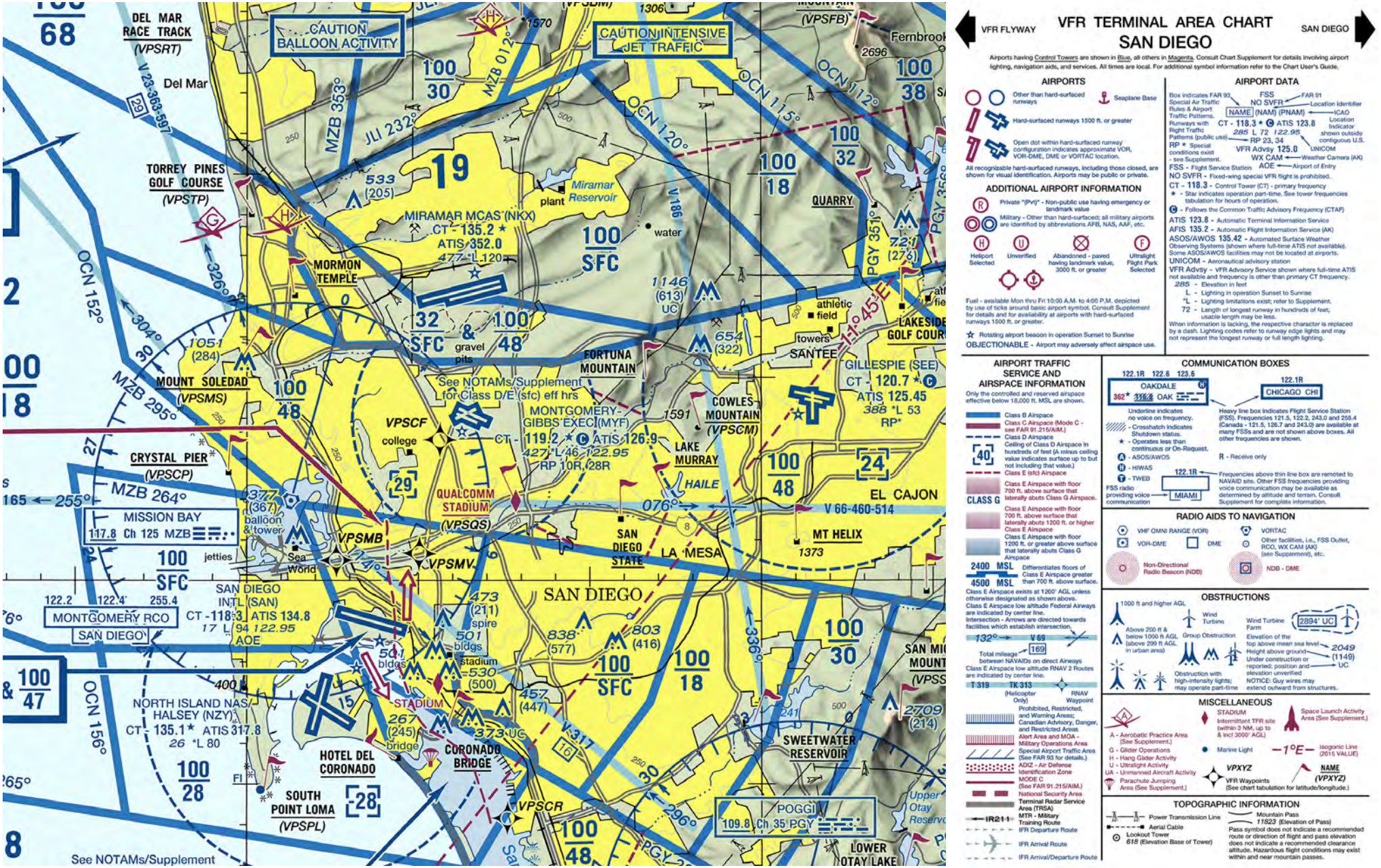


Figure 1.19
Airspace Environment

Source: San Diego VFR Terminal Area Chart, Effective 8 DEC 2016 to 22 JUN 2017

Noise Abatement Procedures

Due to the high volume of residences in both the Clairemont Mesa and Kearny Mesa communities and the larger San Diego area, minimizing the impact of aircraft generated noise is an essential goal of the City. It is impossible to eliminate the effects of noise on the surrounding residential areas, but the City has taken steps to address and mitigate it. In 1985, a noise monitoring system was installed to document the noise produced by aircraft operations at MYF and determine ways of reducing it. MYF has voluntarily enacted noise abatement procedures that are designed to reduce the amount of noise pollution in the surrounding community. These following procedures are recommended:

1. Avoiding departures between the hours of 11:30 p.m. and 6:30 a.m.
2. Higher performance and louder aircraft are requested to use runway 28R/10L.
3. VFR departures are to maintain runway centerline, climb using best rate of climb, reduce power before overflying residential areas, and reach 1,200 feet MSL (2,000 feet for twins) before turning crosswind.
4. IFR departures are to climb to at least 400 feet AGL on runway centerline before turning to their assigned heading and are requested to reduce power before overflying residential areas.
5. VFR arrivals are to maintain pattern the following pattern altitudes until turning base
    - South of the Airport: 1,427 feet MSL for singles and 2,000 feet MSL for twins
    - North of the Airport: 1,427 feet MSL for singles and 1,600 feet MSL for twins

In addition to the general requirements listed above, the City has published recommended VFR arrival and departure procedures.



Noise Abatement Procedures Signage

1.7 Support Facilities

Fixed Base Operators (FBO)

The Airport is home to two FBOs. Their location and services offered are summarized below. Additional information is provided in **Appendix A**.

Gibbs Flying Service

The oldest aviation business located at the Airport, Gibbs Flying Service, was started in 1937 when Bill Gibbs relocated his pilot training business to the future site of Montgomery-Gibbs Executive Airport. Located east of John J. Montgomery Drive, it offers aircraft tie-downs, hangars, fueling, and aircraft maintenance services.

Crownair Aviation

Located west of the administration building is one of the largest leaseholds at the Airport, Crownair Aviation. They are a full-service FBO that caters to larger corporate business jets and turboprops as well as to smaller GA customers. Through a partnership with Epic Aviation, they are able to offer aircraft fueling, hangar rental, ground service equipment, aircraft maintenance, and aircraft/avionics sales.



Gibbs Aviation Service Fuel Truck

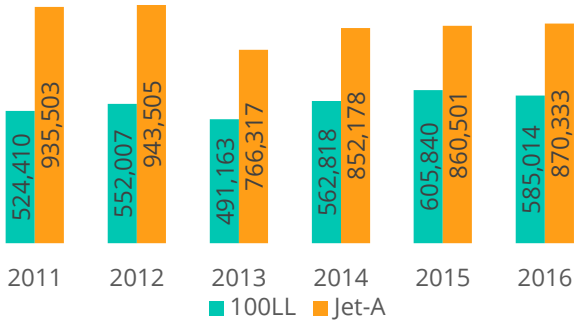
Aircraft Fueling

There are no City-owned or operated aircraft refueling stations at the Airport. Instead, these services are provided by the FBO's. Both Gibbs Aviation Service and Crownair Aviation offer full-service 100-low-lead (100LL) Aviation Gasoline and Jet-A fuel in underground tanks, as well as mobile fuel by trucks. Gibbs has two 12,000-gallon underground fuel tanks and two 2,000 gallon above ground tanks. The above ground tanks are specifically used for motor fuel gasoline. One of the underground tanks provides Jet A fuel and the other contains Avgas. All four of these tanks are located on the Gibbs fuel farm. Additionally, Crownair Aviation has a 24/7 self-service 100LL fuel island located south of the intersection of Taxiways Golf and Hotel. National Air College also sells a small amount of 100LL fuel. Gibbs Aviation Services operates a total of six trucks split evenly between Jet A and AvGas fuels. Two 2,200-gallon trucks and one 1,200-gallon truck provide Jet A fuel for the airport. 100LL Avgas is provided by a 750 gallon truck, a 1,000 gallon truck, and a 1,200 gallon truck.

Crownair Aviation sells the largest amount of Jet-A fuel while Gibbs Flying Service sells the most 100LL. There are two 20,000-gallon underground fuel tanks split between Jet A and Avgas 100LL fuel located on the Crownair fuel island. Crownair has one 850-gallon fuel truck for 100LL Avgas and a 2,400- and 3,000-gallon truck for Jet A fuel.

Fuel flowage records were reviewed back to 2011 for each of the providers at the Airport and the total amount of each type of fuel sold each fiscal year (July 1 – June 30) is presented on **Figure 1.20.**

Figure 1.20 – Historic Fuel Sales by Type (Gallons)



Source: City records, C&S Engineers, Inc.

Aircraft Maintenance

The Airport has several locations that offer aircraft maintenance services including Advanced Aircraft Service, Crownair Aviation, Corporate Helicopters, Gibbs Flying Service, and Spiders Aircraft Service. A more detailed description of the services offered at each location can be found in **Appendix A**.

Air Charter Services

The Airport does not maintain a FAA Part 139 Certification, which would allow for scheduled commercial service flights. However, MYF does handle a notable amount of air charter operations. In the 2016 calendar year, the FAA recorded 3,655 air charter flights. Air charter refers to an aircraft that is rented as whole rather than selling seats individually. The size of aircraft used are typically much smaller than that used by a commercial airline and range anywhere from four to 20+ seats. Crownair Aviation handles most of the air charter flights and Gibbs Flying Service is equipped to handle some of the smaller air charter aircraft.

Flight Instruction and Flying Clubs



A Cessna 172 Touches Down on Runway 28L During a Training Flight

Flight Instruction

Flight instruction accounts for a large portion of the operations at MYF. In 2016, local operations (those remaining in the traffic pattern or within 20 miles of the Airport) accounted for 98,680 out of 200,668 operations, or roughly 49 percent. Flight schools at the Airport include ATP Flight School,

Coast Flight, Corporate Helicopters, Learn to Fly San Diego, National Air College, and San Diego Flight Training International. The majority of the training fleet is made up of single-engine piston aircraft such as the Cessna 172, Piper Archer/Warrior/Arrow. There are also several small multi-engine piston aircraft such as the Piper Seminole/Seneca and Beechcraft Duchess.

Flying Clubs

Flying clubs offer an affordable alternative to aircraft ownership that allows more pilots to stay in the air. They generally charge a monthly membership fee and an hourly rate and give members access to a fleet of aircraft to choose. Flying clubs at the Airport include the Armed Forces Aero Club, Plus One Flyers, Golden Wings, and Consair Flyers Club.

Emergency Services

Police

The San Diego Police Air Support Unit bases several helicopters out of a hangar on the western boundary of the airfield. They are used for search and rescue, aerial security, and air support to patrol operations.

Fire Fighting

The Airport does not have a dedicated Aircraft Rescue and Firefighting (ARFF) station. The closest station to the Airport is Station 28 located at Kearny Villa Road and Aero Drive, directly across the street from the western boundary of the Airport.

The Airport is home to San Diego Fire-Rescue Air Operations that operate off a concrete pad just south of the ATCT. They are planning to expand their facility in the near future. Their helicopters respond to over 400 emergencies each year including firefighting, air-rescue, shoreline rescue, and disaster assessment.



Mercy Air Helicopter

Medical

Mercy Air is a full-service air medical transport system. They have a helicopter based at the Airport that provides air ambulance services to local hospitals.

Additional Facilities

Aircraft Sales and Pilot Supplies

There are several businesses at the Airport to assist pilots in buying new aircraft or outfitting their old aircraft with new electronics and avionics. These include Advanced Aircraft Service, Aviation Unlimited, and Marv Golden.

1.8 Landside Facilities

The landside portion of an airport are those areas that do not play a direct role in the aircraft operations. This includes areas such as the terminal, offices, parking lots, entrance roads, and restaurants.

Airport Administration Building

The Airport Administration Building is a two-story building constructed in 1969. It is located at the end of John J. Montgomery Drive and directly adjacent to the transient aircraft apron. It serves several roles including housing the City of San Diego Airports Division Staff and the MYF operations center, and it is also home to the restaurant Casa Machado and other businesses.



Airport Administration Building

Fleet Vehicles and Equipment

The fleet vehicles owned and operated by the City are listed in **Table 1.15**. These vehicles are stored on the apron directly adjacent to the Airport Administration Building.

Table 1.15 – City-Owned Vehicles and Equipment

Year	Make	Model	Condition
2008	Ford	Taurus	Fair
2009	Ford	F-350	Good
2012	Ford	F-250	Good
2007	Chevrolet	1500	Fair

Source: City records, C&S Engineers, Inc.

Hotel

The Four Points by Sheraton hotel is located on the southwest corner of the airport property, at the intersection of Aero Drive and Kearny Villa Road. It resides on land leased from the City.

Restaurant

The second floor of the administration building is entirely occupied by Casa Machado Restaurant, which serves Mexican food. It offers an opportunity for pilots to dine without leaving the Airport and it allows anyone from the surrounding community to observe the Airport in operation.

Access, Circulation and Parking

Vehicle Access

The Airport is accessed via Interstates 5 and 15 from the north and south and by Interstate 8 from the east and west. The Airport is bound by Balboa Avenue to the north, Ruffin Rd. to the east, Aero Drive to the south, and Kearny Villa Rd. to the west. Entrances to the Airport are located on Aero Drive with the intersections of John J. Montgomery Drive and Glenn H. Curtiss Drive

Multi-modal Access

There are sidewalks along Aero Drive from the intersection with Kearny Villa Road to the west and Interstate 15 to the east. The sidewalk on the Airport side of Aero Drive is incomplete, but one is available on the other side of the street. There is a sidewalk on John J. Montgomery Drive leading to the administration building and an unimproved sidewalk (a graded dirt path) along Glenn H. Curtiss Road leading to the National Air College parking lot. There are crosswalks over Aero Drive at both John J. Montgomery Drive and Glenn H. Curtiss Road.

The Airport is served by Bus Route 25 (Fashion Valley – Kearny Mesa TC) and has stops at the intersection of Aero Drive with both John J. Montgomery Drive and Glenn H. Curtiss Drive. Stops are made approximately every 30 minutes.

Parking

The Airport has several public parking areas available. Parking is free during the day with available overnight parking for a fee. The two main lots are located on both the east and west sides of the Administration Building. Additionally, there is free street parking along Glenn H. Curtiss Road, Gibbs Drive, and John J. Montgomery Drive. The different parking areas and number of spaces available are summarized in **Table 1.16**.

Table 1.16 – Public Parking at MYF

Location	Spaces
Lot East of Administration Building	145
Lot West of Administration Building	73
Street Parking Along Glenn H. Curtiss Road	56
Street Parking Along Gibbs Drive	80
Street Parking Along John J. Montgomery Drive	59
Total Public Parking Spaces Available	**413**

Source: C&S Engineers, Inc. Parking spaces determined on Google Earth imagery dated 11/08/2016

Utilities

San Diego Gas and Electric provides gas and electric services (SDG&E). The Airport is supplied potable water by the Shepherd Canyon Pipeline.

1.9 Stakeholder Feedback

As part of the airport inventory process, steps were taken in order to solicit feedback from the surrounding airport community, users, and tenants. A public advisory committee (PAC) has been assembled that includes several airport tenants as well as representatives from the surrounding community. The PAC will hold seven meetings at regular intervals throughout the master planning process, the first of which took place on April 18, 2017. The PAC will act as a sounding board in the development of the Airport Master Plan and a conduit for information between various interest groups throughout the community. This interaction between the PAC and City is essential for the review and assessment of project information. The PAC meetings are also open to the public and have a period dedicated to hearing and acknowledging public comments. Separate Public Workshops will also be held throughout the master plan process.

1.10 Key Considerations

This section identifies some of the key considerations that the master planning process will review and attempt to resolve. The items summarized below were identified through an inventory of existing conditions as well as coordination with airport management and the PAC.

Airside

- Limited runway length
- Evaluation of the need for the displaced thresholds
- Inadequate aircraft run-up areas
- FAA designated "hot spots"[11]
- RSA and RPZ compliance
- Non-standard taxilane safety areas between hangars
- Unknown pavement weight capacity
- Pavement condition
- Lack of runway edge lighting on both visual runways
- Lack of available hangar and tie-down space
- Clay soil that is not ideal for development
- Land and hold short markings on Runway 5/23
- Review and adjustment of aeronautical fees

Airspace

- Aircraft generated noise and overflight impacts to the surrounding community
- Potential changes to IAPs

Landside

- Undevelopable land due to safety areas or environmental constraints
- Market rate evaluation of leases
- Potential impacts of Airport development on the surrounding community

Environmental

- City's Multi-Habitat Planning Area (MHPA) restrictions on development
- Vernal Pools
- Regulatory agency coordination

11 A "Hot Spot" is a location with a history of potential risk of collisions or runway incursions where heightened attention by pilots and drivers is necessary on an airport movement area.

Other Concerns and Considerations

The first Public Advisory Committee meeting was held on April 18, 2017. Members of the committee identified the following topics.

- Maintaining a balance between the airport user interests and the surrounding communities
- Review of safety procedures
- Continued support of GA facilities and users
- Minimum commercial standards and the cost of operating a business at the Airport
- The potential impact of new aircraft types and drones
- Community consensus on updated noise contours and noise-related impacts

SD Airports



Airport Master Plan

Montgomery-Gibbs Executive Airport

Section 2

Forecast

Prepared by:

C&S COMPANIES®

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Appendix D – National Based Aircraft Inventory Program Data
Appendix E – Traffic Flow Management System Counts (TFMSC)
Appendix F – Socioeconomic Regression Analysis
Appendix G – Forecast Approval Letter

2.1 Forecast Overview

Forecasts of aviation demand are an essential element to the airport planning process that require FAA review and approval. Demand forecasts, based upon the desires and needs of the service area, provide a basis for determining the type, size, and timing of aviation facility development and a platform upon which this master planning chapter will be based. As the operation and construction of future airport facilities require FAA and local investment, accurate forecasts are essential for effective airport planning and decision-making and influence all subsequent steps of the planning process. As stated in FAA Order 5090.3C, *Field Formulation of the National Plan of Integrated Airport Systems*, dated December 4, 2004, forecasts should:

- Be realistic
- Be based on the latest available data
- Reflect current conditions at the airport
- Be supported by information in the study
- Provide adequate justification for the airport planning and development

Forecasts of the Airport's future aviation activity and demand were developed for the planning period extending through 2037 using various data sources provided by the FAA, the California Department of Transportation (Caltrans), Woods & Poole Economics, Inc., San Diego County, and the City of San Diego. The forecast was developed based on the best practice standards as defined in FAA AC 150-5070-6B, *Airport Master Plans*. Consistent with the report *Forecasting Aviation Activity by Airport*, prepared for the FAA in July 2001 by GRA, Incorporated, this forecasting effort was broken into the following steps:

- Identification of Aviation Demand Elements
- Data Sources
- Historical and Existing Aviation Activity
- Review of Aviation Forecasts
- Collection of Data
- Development of the Forecast Framework
- Development of the Forecast
- Demand Forecast Summary
- Comparison with FAA Terminal Area Forecast (TAF)

2.2 Identific tion of Aviation Demand Elements

Forecasts of aviation demand can be developed for a number of elements or parameters. The key demand elements for Montgomery-Gibbs Executive Airport include GA activity and based aircraft. The Airport also has high periods of demand where aircraft operations spike during specific times of the day. Therefore, aviation demand forecasts were developed for the following:

- Number of Based Aircraft and Associated Fleet Mix
- Annual GA Operations
- Peak Period Activity

2.3 Data Sources

Information factored into the forecasting effort included FAA GA fleet trends, anticipated changes in the aircraft fleet mix operating at MYF, and local and regional socioeconomic trends. The data and assumptions used to define baseline conditions and future activity trends were derived from several data sources. The following provides a brief description of these data sources:

- ***City of San Diego:*** The City provided historical documentation that was prepared for the airport, including aviation forecasts and the previous airport master plan that was prepared in 2004.

- ***FAA Terminal Area Forecast (TAF):*** The TAF is the official FAA forecast of aviation activity for U.S. airports. Activity estimates are derived from national estimates of aviation activity that are then assigned to individual airports based upon multiple market and forecast factors. The FAA looks at local and national economic conditions, as well as trends within the aviation industry, to develop each forecast. The latest TAF was published in January 2017.

- ***FAA Air Traffic Activity Data System (ATADS):*** The Air Traffic Activity Data System contains the official air traffic operations data available for public release. ATADS can be used in this instance because the Airport has an ATCT so there is no need to estimate operation counts.

- ***FAA Traffic Flow Management System Count (TFMSC):*** TFMSC contains data derived from the FAA's Air Traffic Airspace Lab's Traffic Flow Management System. The data provides historical records of aircraft operations that can be reviewed and filtered to provide specific historical information on the aircraft types operating at MYF during a defined period of time.

- ***Noise Monitoring System:*** The City operates a noise monitoring system that records noise levels in communities near Montgomery-Gibbs Executive Airport. This data includes historical records of aircraft operations, including aircraft type, that were flown during a defined period of time.

- ***Woods & Poole Economics, Inc.:*** Woods & Poole is an independent firm that specializes in developing long-term economic and demographic projections. Their database includes every state, Metropolitan Statistical Area (MSA), and county in the U.S. and contains historic data and projections through 2050 utilizing more than 900 economic and demographic variables.

2.4 Historical and Existing Aviation Activity

Historical operations data from 2007 through 2017 was drawn from the FAA's ATADS program and is included in **Appendix C**. The operations data indicates that there was a decrease in total aviation activity at MYF beginning in 2009 as the economic recession peaked (see **Table 2.1**). However, by 2014 annual operations had increased back above 200,000, a sign of the improved economy. By a large majority, GA continues to be the largest user class generating activity. After reaching a low point in 2011, air taxi and military operations have seen increases by 62 percent and 181 percent in 2016, respectively. However, combined air taxi and military operations still constitute only a small fraction (less than three percent) of the overall number of operations at MYF. The different types of activity are described below:

- ***General Aviation:*** All operations not including air carrier, air taxi and commuter, scheduled commercial cargo, and military. These operations are generally conducted under FAR Part 91 (General Operating and Flight Rules). GA represents the largest percentage of civil aircraft in the U.S. and accounts for the majority of operations handled by towered and non-towered airports, as well as the majority of certificated pilots. Its activities include flight training, sightseeing, aerial photography, light cargo, recreational, law enforcement, and medical flights, as well as business, corporate, and personal travel via air taxi charter operations. GA aircraft encompass a broad range of types, from single-engine piston aircraft to large corporate jets, as well as rotorcraft, gliders, and amateur-built aircraft.

- ***Military:*** Operations conducted by the nation's military forces. At MYF, these operations are primarily conducted by smaller military training aircraft.

- ***Air Taxi and Commuter:*** Carriers that operate aircraft with 60 or fewer seats or have a cargo payload capacity of less than 18,000 pounds, and carry passengers on an on-demand basis only (charter service) and/or carry cargo or mail on either a scheduled or charter basis. Commuter operators provide scheduled passenger service (five or more round trips per week on at least one route according to published flight schedules) while utilizing aircraft of 60 or fewer seats. Air taxi and commuter carriers are governed under FAR Part 135 (Commuter and On Demand Operations).

Airport operations are classified as local and itinerant. Local operations are those operations performed by aircraft that remain in the local traffic pattern, execute simulated instrument approaches or low passes at the airport, and operations to or from the airport and a designated practice area within a 20-mile radius of the ATCT. Itinerant operations are operations performed by aircraft, with either IFR, VFR, or special visual flight rules (SVFR)[1], that land at an airport, arriving from outside the airport area, or depart an airport and leave the airport area.

As shown in **Table 2.1**, the FAA ATADS recorded a decrease of 1.2 percent for total airport operations over the 10-year reporting period. This is consistent with many similar airports with the economic downturn that occurred in 2008/2009 when aircraft activity saw steep declines. Since this time, aircraft activity has been seeing positive trends with a 5-year average annual growth rate of 0.48 percent from 2012-2016.

[1] A VFR flight cleared by air traffic control to operate within a control zone in meteorological conditions below visual meteorological conditions.

Table 2.1 - MYF Historical and Existing Aircraft Operations Data

	Itinerant				Local			
Calendar Year	**Air Taxi**	**GA**	**Military**	**Sub-Total**	**Civil**	**Military**	**Sub-Total**	**Total Operations**
2006	3,756	122,732	742	127,230	104,965	503	105,468	232,698
2007	3,428	121,088	156	124,672	97,069	751	97,820	222,492
2008	3,114	125,137	237	128,503	103,074	63	103,137	231,640
2009	3,232	115,034	203	118,469	83,719	440	84,159	202,628
2010	3,023	108,043	319	111,389	80,291	188	80,479	191,868
2011	2,251	106,819	298	109,370	89,747	24	89,771	199,141
2012	2,741	91,930	382	95,059	88,564	161	88,725	183,784
2013	2,433	91,117	619	94,177	91,915	100	92,015	186,192
2014	3,151	100,995	525	104,673	110,368	79	110,447	215,120
2015	3,143	118,774	587	122,513	91,245	90	91,335	213,848
2016	3,655	97,429	717	101,801	98,680	187	98,867	200,668
AAGR (5 year trend)				**-0.55%**			**2.70%**	**0.48%**
AAGR (10 year trend)				**-1.73%**			**0.05%**	**-1.19%**

Source: FAA ATADS, March 2017

AAGR: Annual Average Growth Rate, used when data is available for consecutive years

Note: Total operations for Air Carrier service over the 10-year period range from 0 to 15 per year and are included in the Total Airport Operations.

2.5 Review of Aviation Forecasts

Historical aviation activity forecasts were reviewed to evaluate projected forecasting trends and methodologies used to prepare those analyses.

Forecast Data specific to MYF

Future forecast data was reviewed from the 2004 Airport Master Plan Update (**Table 2.2**), the FAA TAF for years 2016 to 2037 (**Table 2.3**), and the RASP for San Diego County for years 2007 to 2030 (**Table 2.4**). The forecast data is shown as reported in those documents and has not been adjusted.

Airport Master Plan Update (2004)

An Airport Master Plan Update for MYF was prepared in 2004. It included an evaluation of future forecast activity at the Airport, but was not reviewed by FAA. The forecast covered a planning period beginning in 2005 and ending in 2020. **Table 2.2** provides a breakdown of the Master Plan forecast of aircraft operations. Overall, the forecast projected a slight increase of 0.67 percent in the average number of annual aircraft operations at MYF through the 20-year planning period.

Table 2.2 - 2004 Airport Master Plan Update for MYF

Year	Total Operations
2005	259,830
2010	268,380
2015	277,550
2020	287,380
CAGR	**0.67%**

Source: Montgomery-Gibbs Executive Airport Master Plan Update – April 2004, page 2-12
CAGR: Compound Annual Growth Rate, used when data is not available for consecutive years
Note: includes both itinerant and local operations

Terminal Area Forecast

The FAA TAF provides forecast data for passenger enplanements, airport operations, Terminal Radar Approach Control Facilities (TRACON) operations, and based aircraft, and as such serves as the benchmark against which the FAA compares all airport activity forecasts. The TAF for Montgomery-Gibbs Executive Airport projects an average annual increase of 0.01 percent for total airport operations, both itinerant and local, from 2016 to 2037. The complete TAF for MYF is included in **Appendix B**.

Table 2.3 - TAF Operations Forecast for MYF

Year	Air Taxi & Commuter	GA*	Military*	Total Operations
2016	3,361	187,307	810	191,478
2017	3,361	178,084	810	182,255
2018	3,361	178,541	810	182,712
2019	3,361	178,999	810	183,170
2020	3,361	179,195	810	183,629
2021	3,361	179,918	810	184,089
2022	3,361	180,379	810	184,550
2023	3,361	180,842	810	185,013
2024	3,361	181,305	810	185,476
2025	3,361	181,770	810	185,941
2026	3,361	182,237	810	186,408
2027	3,361	182,704	810	186,875
2028	3,361	183,173	810	187,344
2029	3,361	183,643	810	187,814
2030	3,361	184,114	810	188,285
2031	3,361	184,586	810	188,757
2032	3,361	185,061	810	189,232
2033	3,361	185,537	810	189,708
2034	3,361	186,013	810	190,184
2035	3,361	186,490	810	190,661
2036	3,361	186,969	810	191,140
2037	3,361	187,449	810	191,620
AAGR	-	**0.01%**	-	**0.01%**

Source: FAA TAF, January 2017
AAGR: Average Annual Growth Rate, used when data is available for consecutive years
*Includes both itinerant and local operations

Regional Aviation Strategic Plan (San Diego County)

The RASP was prepared for the San Diego County Regional Airport Authority in 2011 for the 12 public-use airports located within San Diego County (the Airport System). The RASP was intended to identify current and projected aviation activity in the San Diego region. The RASP utilized forecasts prepared for the baseline year 2007 out to 2037 to then determine the region's long-range air transportation needs and the roles of each airport within the larger Airport System. This included preparing forecasts for each of the 12 public-use airports in the County.

According to the RASP, while Montgomery-Gibbs Executive Airport experienced negative growth trends in the earlier part of the past 27 years, recent years have shown improvement with positive growth rates. See **Table 2.4** below for the RASP-developed aircraft operations forecasts.

Table 2.4 - RASP Aircraft Operations Growth Rates Forecast for MYF

	MYF
1990-2000 AAGR	-0.7%
2000-2007 AAGR	-1.7%
2007-2010 AAGR	4.0%
2010-2020 AAGR	0.2%
2020-2030 AAGR	0.6%
2007-2030 AAGR	**0.9%**

Source: Regional Aviation Strategic Plan, San Diego County, Table 1-2
AAGR: Average Annual Growth Rate, used when data is available for consecutive years
Note: Military forecasts anticipate no growth in annual countywide operations and no change in share by airport

California Aviation System Plan

In 2003, the California Department of Transportation, Aeronautics Division prepared an update to the California Aviation System Plan (CASP). The purpose of the CASP is to provide a vehicle for which the Aeronautics Division can conduct continuous aviation system planning and provide an estimate on the development needs of airports in the California system. As part of the 2003 CASP, forecasts were completed for San Diego County. The forecasts provided two general countywide predictions. The CASP forecasted that the total number of based GA aircraft would increase 28.9 percent and GA operations would increase by 28.6 percent from 1999 totals to 2015. Based on the forecasted growth, improvements to the airport infrastructure were proposed in the CASP. However, as indicated in published FAA ATADS data, the forecasts were not met (six percent decrease in aircraft operations from 1999 to 2015). The Aeronautics Division is currently in the process of updating their system-wide forecasts and plan to have those published by 2019.

Aviation Industry Trends

Industry data sources in addition to those described previously were used to identify aviation trends that are anticipated to influence aircraft activity at MYF over the forecast period (2017 to 2037).

The FAA Aerospace Forecast, Fiscal Years (FY) 2017-2037

The FAA Aerospace Forecast provides an overview of aviation industry trends and expected growth rates for the commercial passenger carrier, cargo carrier, and GA activity segments. National growth rates in enplanements, operations, fleet growth, and fleet mix for commercial fleets and the GA fleet are provided over a 20-year forecast period. With no anticipated commercial service at the Airport for the long-term future, a closer look at the general aviation trends provided a more suitable comparison.

Below are several key elements regarding GA activity:

- The active GA fleet is projected to increase over the forecast period. This fleet includes several types of aircraft, each of which are projected to grow or decline at varying rates over the planning period:
- The turbine-powered fleet (including rotorcraft) is projected to grow at an annual average growth rate of 1.9 percent a year.
- Fixed-wing piston-powered aircraft are projected to decrease by an average annual growth rate of 0.8 percent.

- Light sport aircraft[2] are anticipated to increase annually by approximately 4.1 percent per year.
- Number of GA hours flown is projected to increase 0.9 percent yearly over the forecast period.
- The number of active GA pilots is projected to decrease by 7,500 (down 0.1 percent annually) through the forecast period. However, student pilot training is projected to increase at 0.4 percent annually. This, in combination with an increase in the much smaller category of sport pilots, would result in an additional 15,500 pilots over the forecast period.

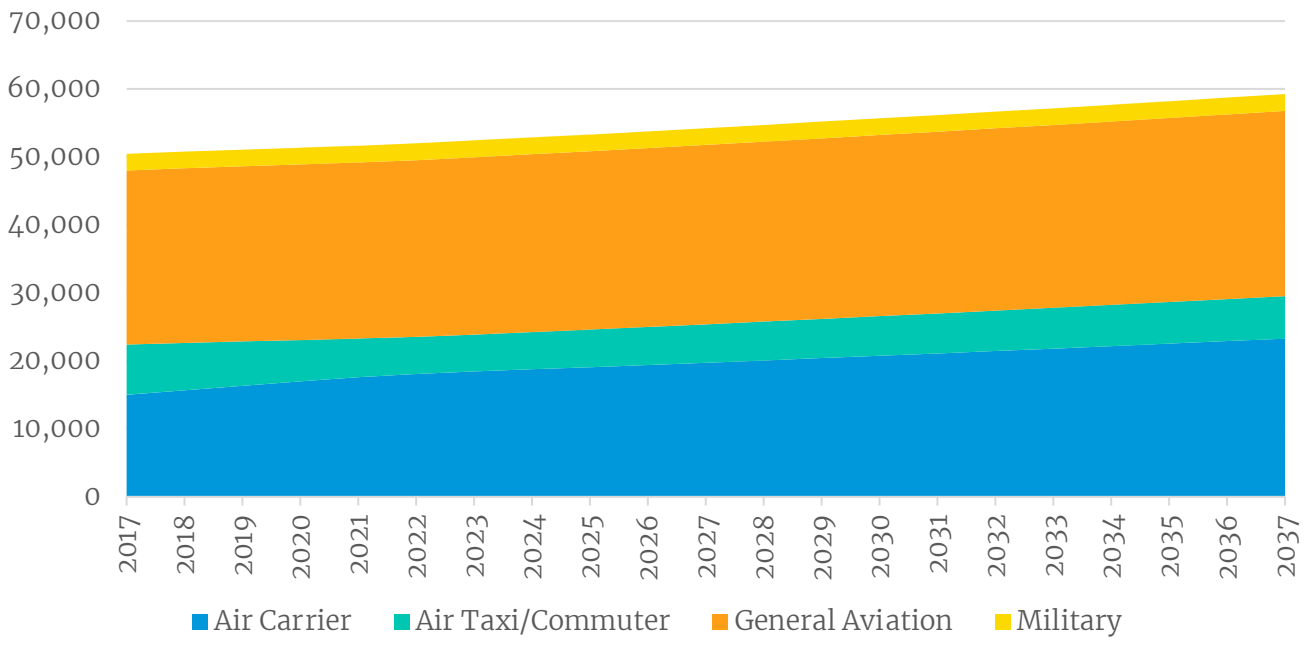
According to the FAA Aerospace Forecast, (FY) 2017-2037, at airports with FAA or contract air traffic control service, GA is projected to remain optimistically stable with a 0.3 percent increase in operations per year over the forecast period. This will be driven by increases in turbine-powered aircraft activity (see **Table 2.5** and **Figure 2.1**). Other activity types represented at MYF (Air Taxi and Military) are forecasted to slightly decrease or show no growth through 2037.

Table 2.5 - Total Combined Aircraft Operations Growth Rates

	Air Carrier	Air Taxi/ Commuter	General Aviation*	Military*	Total Operations
2010-2016 AAGR	2.2%	-3.5%	-0.7%	-0.9%	-0.4%
2016-2037 AAGR	2.3%	-0.9%	0.3%	0.0%	0.8%

Source: FAA Aerospace Forecast for FY 2017 – 2037, Table 32
AAGR: Average Annual Growth Rate, used when data is available for consecutive years
* Includes both itinerant and local operations

Figure 2.1 – Combined Aircraft Operations Growth



Source: FAA Aerospace Forecast for FY 2017 – 2037, Table 32. C&S Engineers, Inc.
Note: Aircraft operations are specific to airports with contract towers

[2] Light sport aircraft (LSA) are defined as small aircraft that are simple to fly and meet FAA airworthiness requirements or are built to an industry consensus standard.

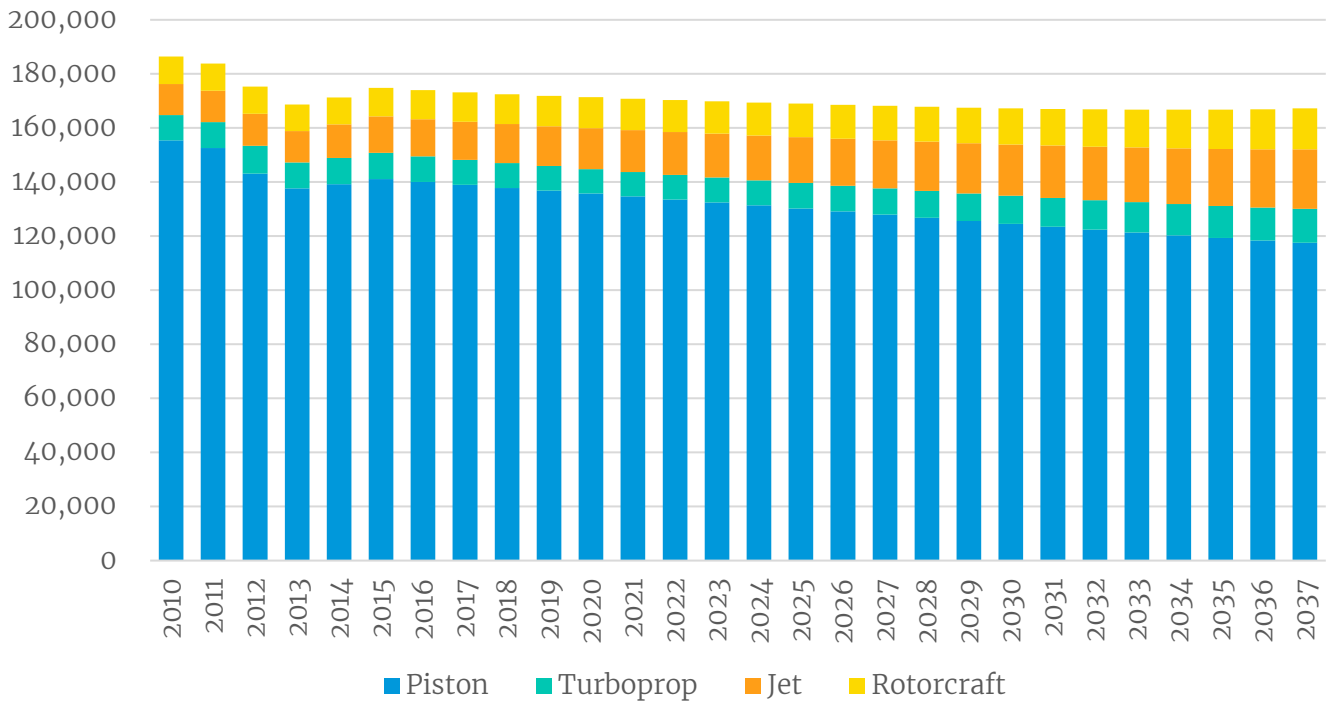
Although fixed wing piston aircraft represent the largest section of the national GA fleet, they are expected to decrease annually by 0.08 percent over the forecast period. According to the FAA Aerospace Forecast, this decline can be attributed to unfavorable pilot demographics, increases in cost of aircraft ownership, and the inability of new aircraft deliveries to keep up with the retirement of an aging fleet. However, growth in the U.S. economy's gross domestic product (GDP) and continuous growth of turbine and rotorcraft fleets help to offset the decline (see **Table 2.6** and **Figure 2.2**). The total number of aircraft that make up the GA fleet are forecast to increase from 209,905 in 2016 to 213,420 aircraft in 2037, which represents a 0.1 percent growth rate over the forecast period.

Table 2.6 - Active GA and Air Taxi Aircraft Growth Rates

	Single-Engine Piston	Multi-Engine Piston	Turboprop	Jet	Rotorcraft	Total GA Fleet
2010-2016 AAGR	-1.6%	-3.1%	0.2%	3.1%	1.0%	-1.0%
2016-2037 AAGR	-0.9%	-0.5%	1.4%	2.3%	1.6%	0.1%

Source: FAA Aerospace Forecast for FY 2017 – 2037, Table 28
AAGR: Average Annual Growth Rate, used when data is available for consecutive years

Figure 2.2 – Active GA & Air Taxi Aircraft Growth



Source: FAA Aerospace Forecast for FY 2017 – 2037, Table 28. C&S Engineers, Inc.
Note: Experimental and Sport Aircraft totals not included

2.6 Collection of Other Data

This step involves the gathering of applicable and pertinent socioeconomic information/data that may be used in the forecast development.

Socioeconomic Trends Affecting Aviation

Airports and aviation activity are often affected by their prominence, national and regional trends in population, per capita income, and employment. While socioeconomic activity may have a larger influence on airports supporting commercial passenger service like San Diego International Airport, it is still important to review and have a clear understanding of local demographic and economic forces that can influence and provide context for an aviation activity forecast. Although other influences may have played a role in the decrease in aircraft operations at MYF from 2008 to 2013, the economic downturn is a prime example of how socioeconomic trends can affect airports.

San Diego County Population and Income Trends

San Diego County is the second largest county in California, Los Angeles being the first, with a population of over 3 million people and a per capita income of approximately $55,000 in 2016. Population growth over the forecast period is projected to increase at 1.1 percent for San Diego County (see **Table 2.7**). While population growth in San Diego County is slowing, the forecasted growth rates are still higher than state and national rates.

Table 2.7 - Historic and Projected Population Growth Rates

Year	San Diego County	California	U.S
2005-2010 AAGR	1.41%	1.01%	0.84%
2011-2016 AAGR	1.21%	0.95%	0.78%
2017-2037 AAGR	1.13%	0.95%	0.89%

Source: Woods & Poole Economics, Inc. 2017; C&S Engineers, Inc.
AAGR: Average Annual Growth Rate, used when data is available for consecutive years

San Diego County saw a slight employment increase from 2005 to 2016. Annually, San Diego County employment is predicted to grow 1.4 percent (see **Table 2.8**) during the forecast period of 2017-2037. Per capita income also shows an increase of 4.2 percent (see **Table 2.9**) for the same period.

Table 2.8 - Historic and Projected Employment Growth Rates

Year	San Diego County	California	U.S
2005-2010 AAGR	-1.23%	-1.24%	-0.69%
2011-2016 AAGR	2.19%	2.63%	1.84%
2017-2037 AAGR	1.42%	1.35%	1.25%

Source: Woods & Poole Economics, Inc. 2017; C&S Engineers, Inc.
AAGR: Average Annual Growth Rate, used when data is available for consecutive years

Table 2.9 - Historic and Projected Income Per Capita Growth Rates

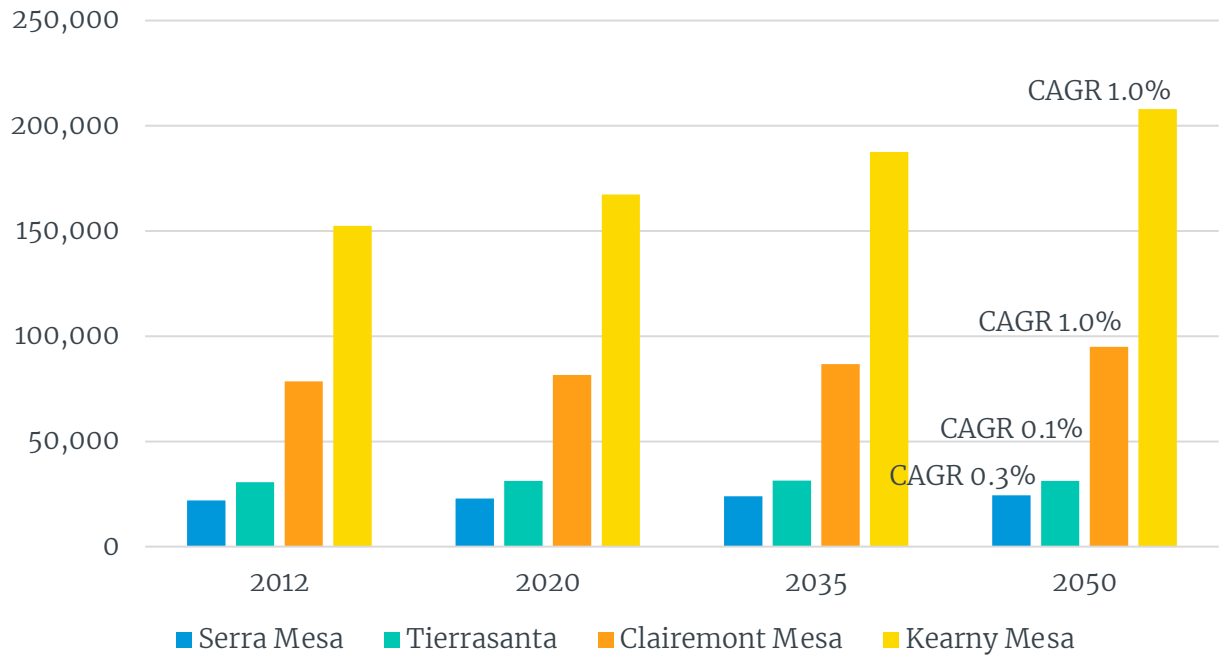
Year	San Diego County	California	U.S
2005-2010 AAGR	1.68%	2.58%	2.29%
2011-2016 AAGR	3.70%	4.09%	3.48%
2017-2037 AAGR	4.23%	4.28%	4.37%

Source: Woods & Poole Economics, Inc. 2017; C&S Engineers, Inc.
AAGR: Average Annual Growth Rate, used when data is available for consecutive years

Community Plans

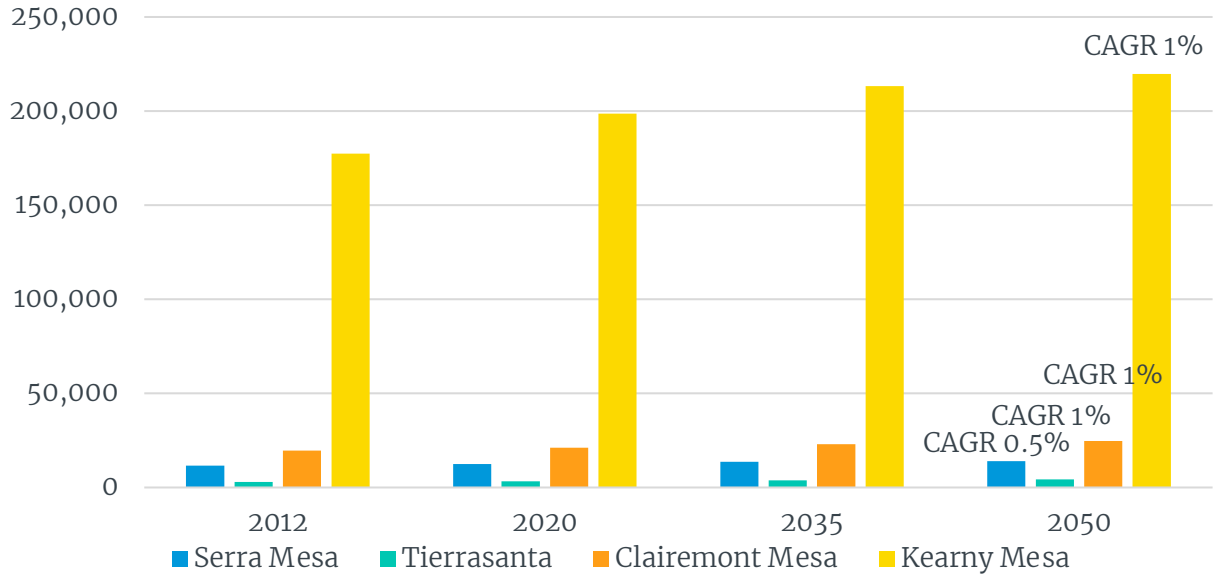
Montgomery-Gibbs Executive Airport is included in the airport influence area section of four community plans that surround the Airport: Kearny Mesa, Serra Mesa, Tierrasanta and Clairemont Mesa. In these communities, projected changes in population, infrastructure, income, etc. have the potential to affect the Airport. The Airport has been a major part of the Kearny Mesa community since it was first established in 1937 as Gibbs Field. Since then, aviation has been inextricably tied to the character of the community. In terms of landings and takeoffs, MYF is considered the busiest airport in San Diego County. In the Series 13 Regional Growth Forecast, the San Diego Association of Governments (SANDAG) gathered population and employment data to forecast the growth of each community from the year 2012 to 2050 (see **Figure 2.3** and **Figure 2.4**). Overall, the regional population is slated to increase within the forecast period of 2017-2037, which will be explored further in this section.

Figure 2.3 - Serra Mesa, Tierrasanta, Clairemont Mesa, and Kearny Mesa Community Population



Source: SANDAG Series 13 Regional Growth Forecast 2013; C&S Engineers, Inc.
CAGR: Compound Annual Growth Rate, used when data is not available for consecutive years

Figure 2.4 – Serra Mesa, Tierrasanta, Clairemont Mesa, and Kearny Mesa Community Employment Growth



Source: SANDAG Series 13 Regional Growth Forecast 2013; C&S Engineers, Inc.
CAGR: Compound Annual Growth Rate, used when data is not available for consecutive years

2.7 Development of the Forecast Framework

The following presents the forecast frameworks that were considered for projecting activity at MYF.

General Aviation Activity: Based Aircraft and Operations

Socioeconomic Regression Analysis

Regression analysis is a statistical methodology that connects factors of aviation demand (dependent variables) such as based aircraft or operations to socioeconomic measures (independent variables) such as population, employment, or income. This is useful when reliable forecasts are available for the independent variables. Specifically, a regression analysis comparing socioeconomic factors (independent variables) and the total number of based aircraft (dependent variable) within the Airport's service area (San Diego County) can be used to project future totals.

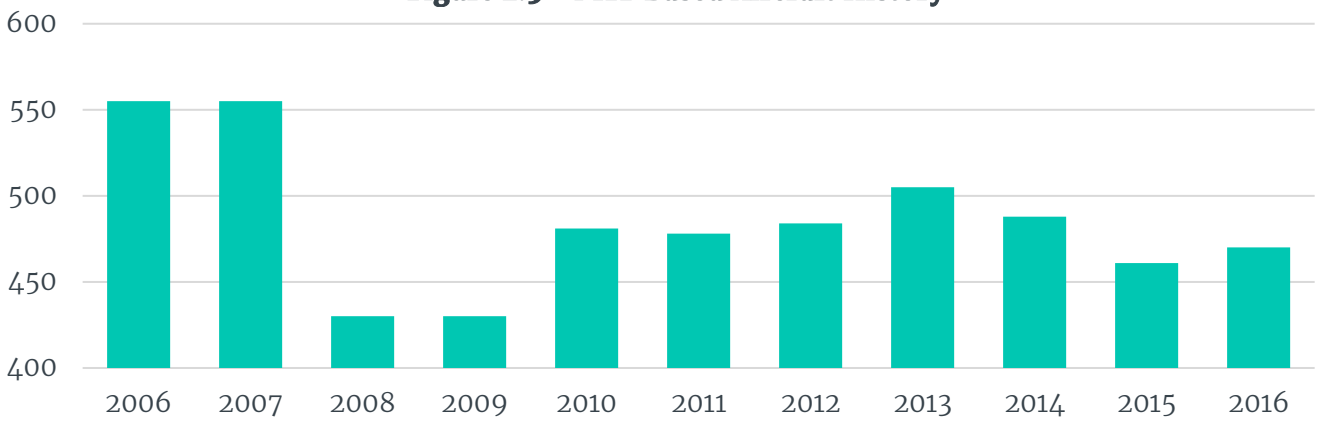
The three major socioeconomic factors of San Diego County (population, income, and employment) were analyzed to determine which had the highest correlation to the number of based aircraft, represented by the resultant R^2 value (an R^2 of 0 means there is no statistical correlation between the independent and dependent variables, while an R^2 value of one indicates a perfect correlation). The same analysis was completed for aircraft operations. Historical population yielded the highest R^2 value related to both based aircraft and operations. However, in both cases the R^2 value is not significant enough to consider the independent variables comparable. The growth rates for the San Diego County socioeconomic factors do not correlate significantly to based aircraft nor operations and will not be used for the MYF forecast. The complete analysis can be found in **Appendix F**.

Trend Analysis

Trend analysis involves the evaluation of historical data to develop projections of future activity. This method will deliver a straight-line projection for future activity at MYF.

Historical based aircraft information for MYF was retrieved from the FAA TAF and is presented on **Figure 2.5**. The data provided shows an average annual decline of 1.3 percent over the 10-year period from 2006 to 2016.

Figure 2.5 – MYF Based Aircraft History



Source: FAA TAF, January 2017. C&S Engineers, Inc.

In reviewing aircraft operations, the five-year historical trend showed an average annual growth rate of 0.48 percent. Due to the moderate growth reflected in this rate, trend analysis was deemed potentially reasonable to project future activity at the Airport.

Market Share Projection
Market share analysis or ratio analysis assumes a top-down correlation between national, regional, and local forecasts. Historical market shares are used as a basis for projecting future market shares. By employing forecasts developed as part of the RASP, it was determined that a market share analysis would provide an unrealistically high growth rate for MYF compared to recent trends and was not used as part of this forecasting effort.

Application of Previously Developed Forecast Growth Rates
Several previously-developed forecasts for MYF were compared to determine if applying their growth rates to existing activity would result in a reasonable projection for the planning horizon. In addition, the FAA Aerospace Forecast growth rate was included as it is developed on an annual basis and reflects the most recent trends and shifts in the aviation industry.

2.8 Development of the Forecast for MYF

Based Aircraft Forecast

The FAA Aerospace Forecast indicates that the total number of GA aircraft will increase by 0.1 percent annually (CAGR) over the forecast period. Based on the national trends showing an increase in the general aviation fleet and the improvement in growth rates between the last 10-year and 5-year trends for the historical based aircraft at MYF, the FAA Aerospace Forecast for the GA fleet is the preferred based aircraft forecast.

According to the FAA TAF there were 470 based aircraft at MYF in 2016. This contradicts the validated number of 604 that was approved in the National Based Aircraft Inventory Program (see **Appendix D**). Since this information was recently validated on 3/24/2017, meaning all aircraft identifiers (N-numbers) were reviewed and determined accurate, 604 was used as the existing number of based aircraft at MYF. Coordination with the FAA will be undertaken as part of the forecast approval process to ensure that this number is accurate and the TAF updated.

Operations Forecast

There are a variety of aviation activities that comprise the broad definition of GA. General aviation operations at MYF are divided by aircraft categories to include single-engine piston, multi-engine piston, turbo-prop, turbo-jet, rotorcraft/helicopter, and military aircraft. Due to differing growth rates, some of the forecast assumptions applied a unique forecast factor. These forecasts adjusted growth rates by aircraft categories or applied an overall annual growth rate assumption for the forecast period, which may result in discrepancies between these forecasts and the growth rates presented above for different forecast periods. The following (**Table 2.10**) is a summary of the annual growth rate assumptions to be applied and assessed under this forecasting effort.

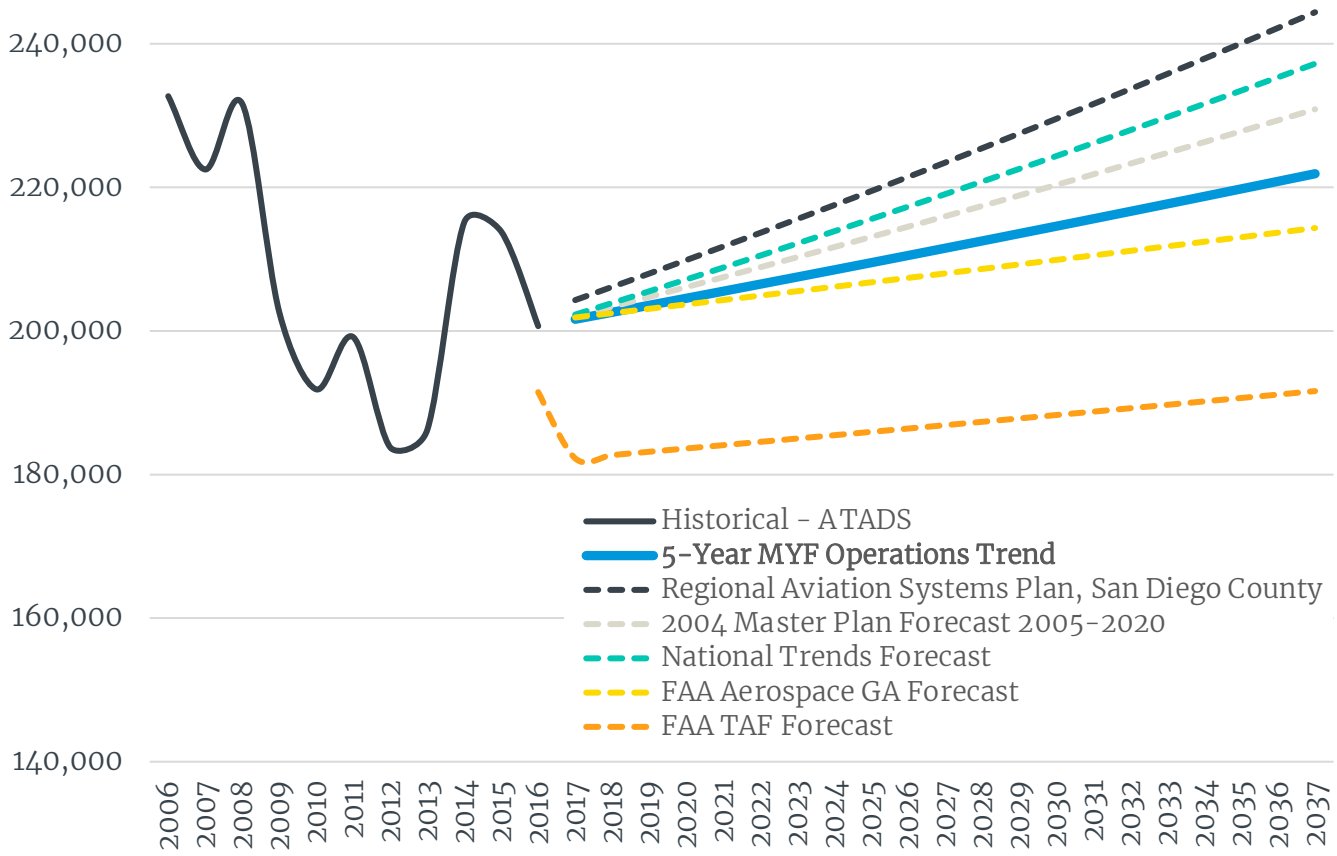
Table 2.10 - Operations Forecast Scenarios

Operations Forecast Scenario	Annual Growth Rate	2016 Base Year	2022 Forecast	2027 Forecast	2037 Forecast
FAA Terminal Area Forecast (TAF)*	0.01%	191,478	184,550	186,875	191,620
FAA Aerospace Forecast for GA	0.30%	200,668	204,920	208,012	214,338
National Trends Forecast **	0.80%	200,668	210,495	219,050	237,219
5-Year MYF Operations Trend	**0.48%**	**200,668**	**206,517**	**211,521**	**221,896**
Regional Aviation Strategic Plan	0.90%	200,668	213,657	223,446	244,390
2004 Master Plan Forecast (2005-2020)	0.67%	200,668	208,871	215,963	230,876

Source: C&S Engineers, Inc.; FAA; MYF 2004 Airport Master Plan, RASP 2011, and Airport records.
Note: * FAA TAF forecast are the actual numbers reported by the FAA under the federal fiscal year and the growth rate is not calculated from the 2016 calendar year. Some percentages and forecast numbers vary as a result of rounding.
**The National Trends Forecast utilizes the 0.8% growth rate, which is a combination of all fleet mix growth rates described in the FAA Aerospace Forecast. For separate growth rates per fleet mix aircraft type, see Table 1.12.

Figure 2.6 illustrates the historical operations data at the Airport and provides the six scenarios reviewed for the annual operations forecast through 2037. See **Table 2.10** for specific growth rates corresponding to each scenario.

Figure 2.6 - MYF Operations Forecast Scenarios



Source: C&S Engineers, Inc.; FAA; MYF 2004 Airport Master Plan, RASP 2011, and Airport records.

Based on the FAA Aerospace Forecast showing stability in GA activity and the improvement in reported growth rates of aircraft operations at MYF between the last 10-year and 5-year trends, the preferred operations forecast is the 5-Year MYF Operations Trend. Although the FAA Aerospace GA Forecast growth rate of 0.30 percent was considered, that growth rate was determined to be too low to apply over the 20-year planning period based on recent trends.

Fleet Mix Forecast

The fleet mix of an airport is made up of aircraft that are based at the facility as well as the transient aircraft that operate to and from it. In addition, the fleet mix plays an important part in the development of the forecast because certain aircraft types (jet versus single-engine) are experiencing different growth rates that need to be applied during the development of the forecast. Ultimately, the forecasted operations activity at MYF are allocated by aircraft category based on available information.

Historical based aircraft information for MYF was retrieved from the FAA TAF while current information was collected from the FAA National Based Aircraft Inventory Program. The MYF fleet mix identified from the National Based Aircraft Inventory Program and the FAA TFMSC (see **Appendix E**) for operations data are shown in **Table 2.11** and **Table 2.12** respectively.

Table 2.11 – Existing Based Aircraft at MYF

Aircraft Type	Aircraft Count	Fleet Percentage
Single Engine	508	84.0%
Multi Engine	66	11.0%
Turboprop	6	1.0%
Jet	9	1.5%
Rotorcraft	15	2.5%
Total	**604**	**100%**

Source: National Based Aircraft Inventory Program, 5010 data 03/30/2017

Table 2.12 – Existing Operations at MYF

Aircraft Type	Aircraft Count	Operations Percentage
Single Engine	167,997	83.7%
Multi Engine	19,721	9.8%
Turboprop	3,356	1.7%
Jet	3,673	1.8%
Military	904	Less than 1%
Rotorcraft	5,017	2.5%
Total	**200,668**	**100%**

Source: TFMSC 2016 and C&S Engineers, Inc.

The aviation demand forecast was broken down further by aircraft category. Aircraft categories are defined as a grouping of aircraft types that have similar characteristics. These categories include single-engine propeller, multi-engine propeller, turboprop, jet, military, and rotorcraft (helicopters). Each aircraft category was evaluated to determine specific growth rates over the 30-year planning period. The rates were based on a review of historical trends at MYF, conversations with airport management and tenants, and forecasting trends provided by the FAA Aerospace Forecast.

Growth rates for rotorcraft, turboprop and jet aircraft were kept consistent with the FAA Aerospace Forecast (see **Table 2.13**). While the FAA Aerospace Forecast predicts slight decreases in operations of both single-engine and multi-engine propeller aircraft nationwide, the growth rates of those aircraft categories at MYF were forecast to increase slightly. This was primarily based on feedback provided by airport tenants, including flight-clubs and flight schools, which indicated growth trends at MYF.

Military operations at MYF have fluctuated slightly over the last 10-years from a low of 300 combined local and itinerant operations in 2008 to a high of 1,245 in 2006 and do not make up a significant percentage of the Airport's operations. According to FAA TFMSC published data, 904 military operations occurred in 2016 by small training aircraft. The FAA TAF indicates forecasted annual military operations of 668 every year looking forward. Given the overall low percentage of military operations (less than one percent of total operations), combined with minor historical fluctuations, forecasted military operations were forecast to remain at current levels (904 annual operations) through the MYF 20-year planning period.

Table 2.13 – Fleet Mix Operations Forecast at MYF

Fleet Mix Aircraft Type	Annual Growth Rate	2017	2022	2027	2032	2037
Single Engine	0.45-0.50%	167,351	170,989	174,455	177,939	181,484
Multi-Engine	0.13-0.15%	20,087	20,502	20,926	21,346	21,701
Turboprop	1.40%	4,081	4,165	4,251	4,336	4,423
Jet	2.30%	4,111	4,526	5,105	5,757	6,493
Military	-	904	904	904	904	904
Rotorcraft	1.60%	5,097	5,431	5,880	6,365	6,891
Total	0.48%	201,631	206,517	211,521	216,647	221,896

Source: FAA Aerospace Forecast, FAA ATADS, City of San Diego and C&S Engineers, Inc.

2.9 Recommended Demand Forecast Summary

A summary of the recommended aviation forecast for Montgomery-Gibbs Executive Airport is provided in **Table 2.14**. This forecast was approved by the FAA on June 30, 2017 and the approval letter can be found in **Appendix G**.

Table 2.14 - Montgomery-Gibbs Executive Airport Demand Forecast Summary

	2017	2022	2027	2032	2037
Based Aircraft	605	608	611	614	617
Annual GA Operations	201,631	206,517	211,521	216,647	221,896

Source: C&S Engineers, Inc.

2.10 Comparison with FAA Terminal Area Forecast

Table 2.15 presents a comparison between the preferred forecast for Montgomery-Gibbs Executive Airport as developed herein and the FAA TAF. The baseline year (2016) discrepancies between the two forecasts may be a result of the TAF using the federal fiscal year (October through September) rather than the calendar year.

Table 2.15 - Comparison between MYF Operations Forecast and FAA TAF

Forecast Year	Airport Forecast	FAA TAF	% Difference from TAF
2016	200,668	191,478	4.80%
2017	201,631	182,255	10.63%
2022	206,517	184,550	11.9%
2027	211,521	186,875	13.2%
2032	216,647	189,232	14.5%
2037	221,896	191,620	15.8%

Source: FAA TAF, January 2017 and C&S Engineers, Inc.

This report has documented that the TAF number of aircraft operations is inconsistent with existing conditions (2016) at the Airport, which exceeded the TAF for based aircraft and operations. The FAA updates the TAF annually and the number of aircraft operations and based aircraft reported under 2016 will likely be corrected in the next iteration based on the actual numbers recorded at MYF.

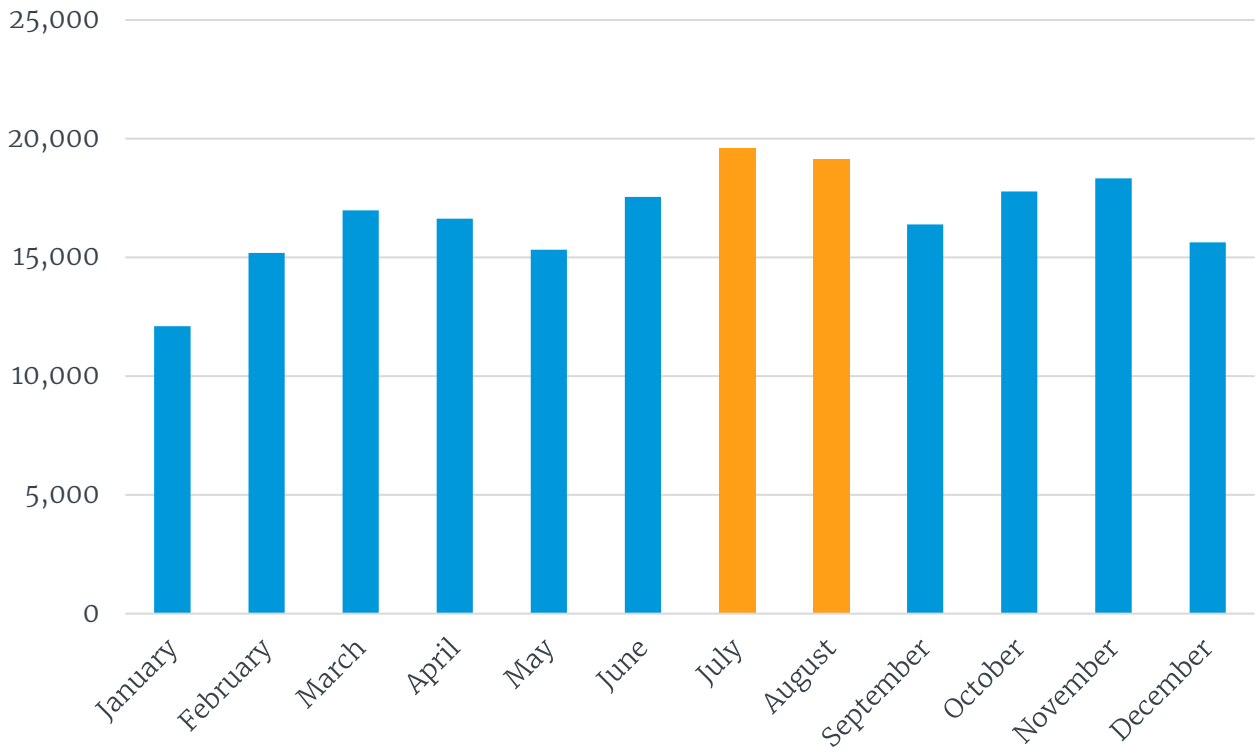
2.11 Peak Period Characteristics

Defining peak periods for aviation demand is an essential step in the planning process. Peak activity refers to specific sets of time (e.g. seasonal, monthly, daily) in which the number of aircraft operations (arrivals and departures) is at its highest frequency, putting increased demand on airport facilities. At MYF, understanding peak period demands assists in determining where specific airfield improvements may be needed to address increased aircraft departure queue times or to determine if adequate transient parking exists during specific times. This evaluation only considers the existing conditions at MYF. However, based on the aviation demand forecasts presented in **Section 2.9** it is anticipated that peak periods will become more saturated as operations continue to increase.

Peak periods of aviation demand were calculated using aircraft activity information provided by the City-operated noise monitoring system. The noise monitors provide a record of the date and time an operation took place, but they do not record every single operation. To correct for this, available data was interpolated to meet the annual number of operations that were recorded under the FAA ATADS data in 2016.

The following is a breakdown of the peak periods of aviation demand: monthly operations, daily operations, and hourly departures. **Figure 2.7** provides a breakdown of the monthly operations at MYF. As a vacation destination, July and August are the months of highest demand as it correlates to the summer months.

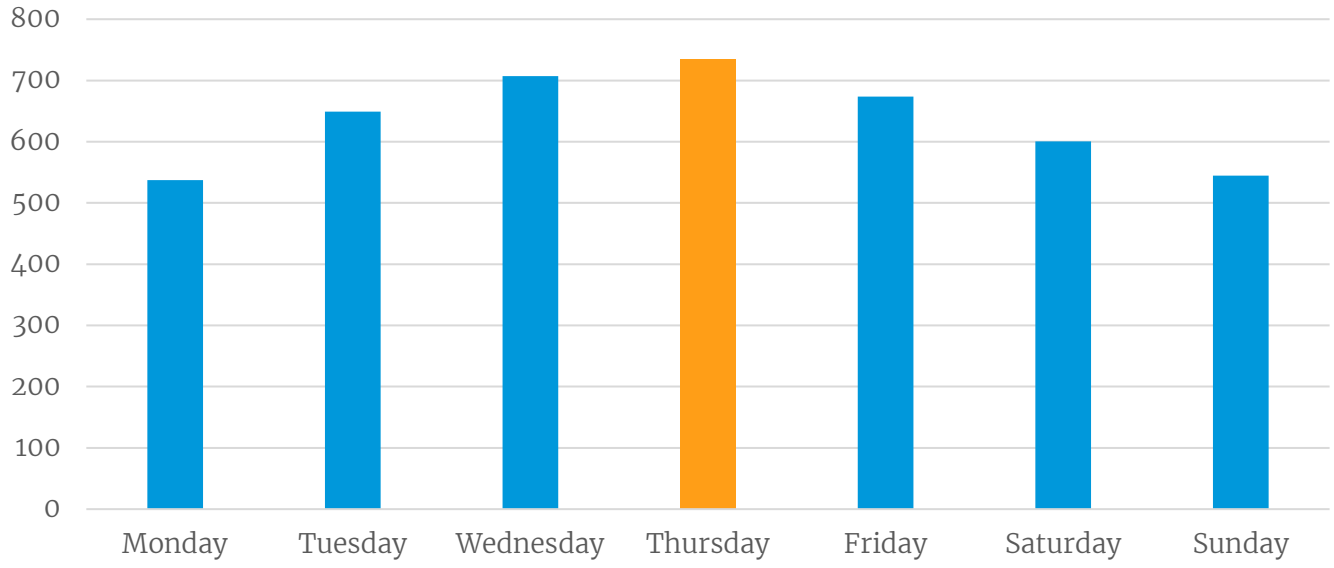
Figure 2.7 - Operations by Month (2016)



Source: City Noise Monitoring System data from 01/01/2016 to 12/31/2016. C&S Engineers, Inc.

Figure 2.8 provides a breakdown on the average number of daily operations during the peak month at MYF. According to the data, the middle of the week is the peak period of demand, with Thursday as the most active.

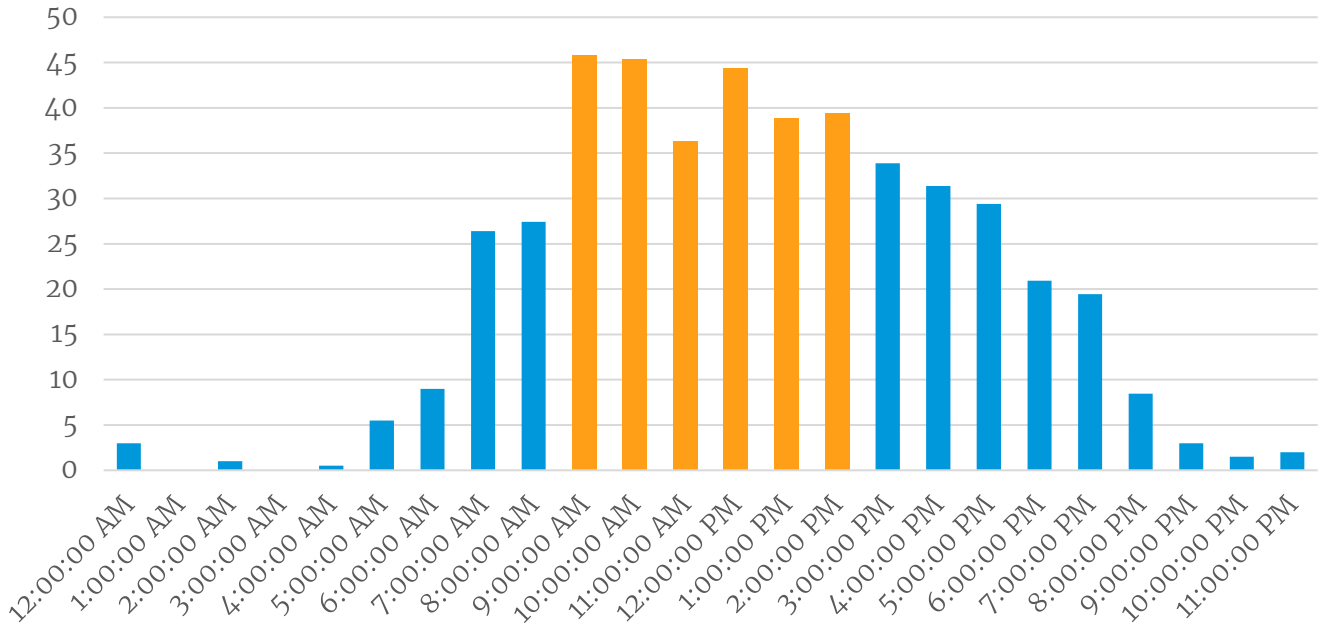
Figure 2.8 – Operations by Day (2016)



Source: City Noise Monitoring System data from 01/01/2016 to 12/31/2016. C&S Engineers, Inc.

Figure 2.9 provides a breakdown on the peak daily hours of demand for aircraft departures during the average peak day in the peak month. According to the data, the midday hours between hours 9:00 am and 2:00 pm reflect the highest number of aircraft operations. This is likely driven by flight training conducted at the Airport and correlates to information provided by flight schools at the airport and flying clubs.

Figure 2.9 – Departures by Time of Day (2016)



Source: City Noise Monitoring System data from 01/01/2016 to 12/31/2016. C&S Engineers, Inc.

2.12 Critical Aircraft

An essential step in the airport master plan process is the identification of the critical aircraft or design aircraft that will guide the standards used for separation and geometric design of the airport facilities. Due to the varying size and speed characteristics of each aircraft type, the airport must be planned and designed to accommodate them properly. The following sections discuss both the existing and forecasted critical aircraft.

As noted in section 1, the critical aircraft is defined by the FAA as the most demanding aircraft that performs, or is projected to perform, 500 annual operations at the airport facility. This can be recognized as a specific aircraft model or composite of similar aircraft models that currently or are forecast to operate at the facility. In the case of an airport with multiple runways, a design aircraft is selected for each runway.

Determining the Critical Aircraft

In order to select the appropriate FAA design standards, the critical aircraft must be verified for both existing and future conditions. In the most recent FAA-approved ALP, the critical aircraft is identified as the Beechcraft King Air 200 for Runway 10L/28R and Runway 5/23, while the Cessna 421 was listed as the critical aircraft for Runway 10R/28L. A combination of based aircraft reports, FAA aircraft operations data, and information collected from the City-operated noise monitoring system was used to determine if changes to the critical aircraft under the existing and future conditions is necessary.

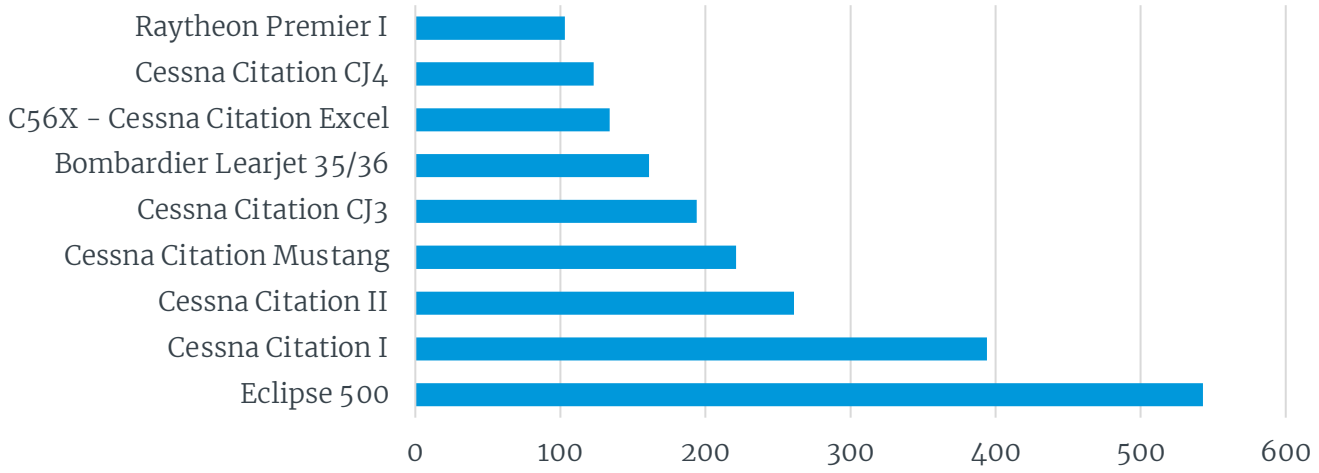
Based Aircraft

The National Based Aircraft Inventory Program reports an FAA-verified count of 604 based aircraft at MYF. While the vast majority of these aircraft are single-engine piston, there are nine jet aircraft and five turboprop aircraft based at the Airport. The largest of each of these aircraft is a Cessna 550, with a wingspan of 52 feet, and a Beechcraft King Air 200, with a wingspan of 54 feet.

Aircraft Operations

Aircraft operations data collected in calendar year 2016 and the beginning of 2017 was reviewed to determine if larger aircraft than those based at the Airport were operating frequently at MYF. The FAA TFMSC indicated that light corporate jets such as the Eclipse 500, Citation CJ1, and Citation Mustang are the type that operate most frequently (> 100 operations) at MYF (see **Figure 2.10**). There are operations from larger and more demanding aircraft such as the Challenger 600 and Learjet 36, however they do not operate frequently enough to meet the 500 annual operations threshold needed to be classified as the critical aircraft. In 2016, the TFMSC reported 1,136 operations by the Beechcraft King Air 200 and 1,016 operations by the Beechcraft King Air 350.

Figure 2.10 – Most Frequently Operated Jet Aircraft



Source: 2016 calendar year TFMSC data, C&S Engineers, Inc.

Data collected from the noise monitor system during the 2016 calendar year confirmed the TFMSC information. It reported 436 departures by the King Air 350 and 415 departures by the King Air 200. The wingspan, approach speed, and max weight of the King Air 350 are more demanding than any of the light corporate jets with over 500 operations, and so it was selected as the critical aircraft for Runway 10L/28R.



Beechcraft King Air 350
Source: Beechcraft.txtav.com

Due to the reduced width of Runway 10R/28L (60 feet) and Runway 5/23 (75 feet) and the lack of instrument approaches, they are very infrequently used by larger aircraft and have been assigned a separate critical aircraft. Through conversations with Airport staff and review of both the TFMSC and the noise monitoring data it was determined that the most demanding aircraft currently operating on these two runways was the Cessna 421 Golden Eagle.



Cessna 421 Golden Eagle
Source: execflyer.com

Critical Aircraft Characteristics – Existing Conditions

The King Air 350 has a wingspan of 57.92 feet, a tail height of 14.33 feet, a MTOW of 15,000 pounds, and an approach speed of 107 knots. These characteristics classify it as an Aircraft Approach Category B and Airplane Design Group II aircraft. The B-II family of aircraft consists of a number of aircraft types commonly flown at the Airport including the Cessna 525, the Beechcraft 1900, and the Beechcraft King Air 200. This family of aircraft is categorized[3] as having approach speeds of 91 knots or more but less than 121 knots, wingspans up to 49 feet but less than 79 feet, and tail heights up to 30 feet but less than 40 feet.

The Cessna 421 has a wingspan of 41.70 feet, a tail height of 11.6 feet, a MTOW of 7,450 pounds, and an approach speed of 96 knots. These characteristics classify it as a B-I(S)[4] aircraft. The B-I(S) family of aircraft consists of a number of aircraft types commonly flown at the Airport including the Cessna 182, the Beechcraft Baron, and the Cessna 414. This family of aircraft is categorized as having approach speeds of 91 knots or more but less than 121 knots, wingspans up to 49 feet, and tail heights up to 20 feet.

Critical Aircraft Characteristics – Future Conditions

The critical aircraft is expected to remain unchanged for the duration of the planning period. The King Air 350 is an extremely popular aircraft and still under production by Beechcraft. Historical aircraft operations data also indicates a continuous increase in operations by the King Air 350 at MYF over the past 10 years. While larger and more demanding aircraft such as the Citation 680, Challenger 600, and Learjet 35 currently operate at the Airport, their operations are too few and infrequent to justify future classification as the critical aircraft at this time. The number of operations at MYF from mid- to large-size corporate jets is not expected to increase significantly during the planning period. As the market trends towards smaller and more efficient corporate aircraft such as the Phenom 100,

3 FAA Advisory Circular (AC) 150/5300-13A, *Airport Design*.
4 According to AC 150/5300-13A, (S) is defined as a small aircraft with a maximum certificated takeoff weight of 12,500 lbs. or less.

Eclipse 500, and Honda Jet, the larger jets are being operated less. These light business jets are becoming increasingly popular for a number of reasons including lower operating costs, better performance, and the ability to fly with a single pilot. For planning purposes these aircraft types are no more demanding than the King Air 350 based on FAA classification. The Airport would remain as an ARC B-II airport. The critical aircraft for Runways 10R/28L and 5/23 are expected to remain unchanged as the Cessna 421 is currently the largest aircraft to operate on the runway even while larger aircraft are frequenting the Airport.

Under the alternatives analysis portion of this master plan, the feasibility and impacts of removing the Runway 28R displaced threshold will be studied in detail. This will increase the length of landing runway available by 1,176 feet. The potential for this to effect the future fleet mix and future critical aircraft will be further evaluated as part of that process. If it is determined, that the removal or relocation of the displaced threshold would have a significant effect on the aircraft fleet mix by attracting larger jets, recommendations will be made to adjust the future critical aircraft.

SD Airports



Airport Master Plan

Montgomery-Gibbs Executive Airport

Section 3

Facility Requirements

Prepared by:

C&S COMPANIES®

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3.1 Facility Requirements Overview

This section identifies the specific types and quantities of infrastructure and facilities needed at Montgomery-Gibbs Executive Airport to meet the FAA's approved forecasted aviation demand presented in **Section 2**. The results of a capacity and demand analysis, aviation demand forecasts, and other planning methodologies, determined the requirements for the airfield, landside, and support areas of the Airport. In addition to objective analyses, considerations were given to recommendations and feedback from airport personnel, tenants, airport businesses, and other stakeholders.

The 20-year planning period for the Airport Master Plan begins with the base year of 2017 and extends through 2037. Development needs are broken down into short-term (1-5 years), mid-term (6-10 years), and long-term (11-to-20 years) planning periods. Short-term planning is focused on addressing immediate deficiencies, mid-term planning focuses on a more detailed assessment of needs, and long-term planning primarily focuses on the ultimate role and needs of the Airport. It is important to keep in mind that actual activity at MYF may vary over the 20-year planning period and may be higher or lower than what the aviation demand forecast predicted. However, using the three planning periods (short-, mid-, and long-term), the City can make informed decisions regarding the timing of development, which will result in fiscally responsible and demand-based development of MYF. For review, a summary of the FAA-approved aviation demand forecast for each planning period for Montgomery-Gibbs Executive Airport is provided in **Table 3.1.**

Table 3.1 - Montgomery-Gibbs Executive Airport Demand Forecast Summary

	2017	2022	2027	2032	2037
Based Aircraft	605	608	611	614	617
Annual Operations	201,631	206,517	211,521	216,647	221,896

Source: C&S Engineers, Inc.

Facility requirements at MYF have been broken down into two general groupings, Airfield Facility Requirements and Landside Facility Requirements. The Airfield Facility Requirements section relates to the runways, taxiways, and NAVAIDS, while the Landside Facility Requirements deals with aircraft parking and storage needs and other support facilities such as the Airport terminal building, fueling facilities, and any non-aeronautical facilities.

3.2 Airfiel Facility Requirements

Airspace Capacity

Airspace is defined as the navigable space that is used by pilots to navigate from one airport to another. Airspace capacity can become constrained when flight paths of air traffic at nearby airports, or local NAVAIDS, interact to add operations to the airspace that surrounds an individual airport. This creates the possibility of congestion within MYF's airspace. The need to alter flight paths of arriving and departing aircraft in order to avoid obstructions is also of concern.

There are numerous public GA and commercial airports identified within 30 nautical miles of MYF, most notably San Diego International Airport (SAN) and Miramar Marine Corps Air Station (NKX), both of which have Class B airspace. The Miramar Marine Corps Air Station, located approximately three miles to the north of MYF, is the largest contributor to airspace capacity issues in the immediate region and is responsible for a majority of the military operations occurring in the immediate vicinity of MYF. The Miramar Marine Corps Air Station is home to a large fleet of both fixed wing and rotor

military aircraft. This can negatively affect capacity in the form of departure delays as controllers wait to release an aircraft from the runway until their departure path is clear due to special use airspace.

Airside Capacity

Airside Capacity calculations represent the capacity of the airside infrastructure such as runways, taxiways, and IAPs. These values are compared to existing and future demand to determine the need for future capacity-enhancing infrastructure such as additional runways or taxiway exits.

Airside capacity is a measure of the number of aircraft that can operate at an airport in a given timeframe. Capacity is most often expressed in hourly or annual measures. Hourly capacities are calculated for VFR and IFR in order to identify any peak-period issues. Hourly airport capacity calculations included in the following sections do not include variables attributed to ATC procedures such as procedural spacing. The differentiation between VFR and IFR hourly capacities derive from the heightened minimums required for IFR operations. While under IFR conditions, some aircraft are limited in their ability to handle said conditions and will ultimately reduce the hourly capacity. Annual Service Volume (ASV) is calculated to measure an airport's ability to meet existing and future demand levels. This measurement is discussed in later portions of this section.

The major components to be considered when determining an airport's capacity include runway orientation and configuration, runway length, and runway exit locations. Additionally, the capacity of any given airfield system is affected by operational characteristics such as fleet mix, climatology, and IAPs. Each of these components has been examined as part of the airside capacity analysis.

The FAA defines total airport capacity as a reasonable estimate of an airport's annual capacity, which accounts for the differences in runway use, aircraft mix, weather conditions, etc. that would be encountered over a year's time. The parameters, assumptions, and calculations required for this analysis are included in the following sections.

Airfield Capacity Parameters and Assumptions

The generally accepted methodology for calculating airfield capacity is found in FAA AC 150/5060-5, *Airport Capacity and Delay*. The calculations are based on the runway utilizations that produce the highest sustainable capacity consistent with existing air traffic rules, practices, and guidelines. The criteria and values used in the AC are typical of U.S. airports with similar runway configurations and are designed to enable calculation of airport capacity as accurately as possible. The parameters and assumptions identified in this section were used to calculate the Airport's airfield capacity.

Runway Orientation, Utilization, and Wind Coverage

The Airport has three bi-directional runways, two (Runway 10L/28R and Runway 10R/28L) with a east-west alignment and one (Runway 5/23) with a northeast-southwest alignment. The utilization rates and orientation of these runways were evaluated to determine the annual capacity of the Airport, which is the sum of capacities determined for each operation. It is important to note that an operation is defined as either a takeoff or landing. The direction of each operation is highly influenced by wind, available instrument approaches, noise abatement procedures, airspace restrictions, and/or other operating parameters. The runway use configurations used for MYF's capacity calculations considered runway orientations for Runways 10L/28R, 10R/28L, and 5/23 in various combinations.

Providing adequate wind coverage is an important factor in enhancing an airport's capacity. Runways should be constructed to maximize the opportunity for aircraft to take-off and land heading into the wind. The FAA recommends that each airport's primary runway has 95 percent or greater wind coverage in all weather conditions. According to FAA AC 150/5300-13A, *Airport Design*, the 95 percent

wind coverage is met for a B-II runway when the crosswind component does not exceed 13 knots. The all-weather wind rose and IFR wind rose identified that the existing runway system exceeds the 95 percent combined wind coverage requirement. Furthermore, the wind analysis revealed that each of the two bi-directional runways exceed the 95 percent wind coverage independently for the classes[1] of aircraft most regularly accommodated.

Aircraft Mix Index

The FAA has developed a classification system for grouping aircraft, based on size, weight, and performance. **Table 3.2** illustrates the classification categories as they are presented in FAA AC 150/5060-5, *Airport Capacity and Delay*.

Table 3.2 - FAA Aircraft Certifications

Aircraft Class	Max. Cert. Takeoff Weight (lbs.)	Number of Engines	Wake Turbulence Classification	% of Operations
A	12,500 or less	Single	Small (S)	78.95%
B	12,501 – 41,000	Multi	Small (S)	20.94%
C	41,000 – 300,000	Multi	Large (L)	0.11%
D	Over 300,000	Multi	Heavy (H)	0%

Source: FAA AC 150/5060-5, Airport Capacity and Delay. TFMSC January 2016-December 2016, Atkins Analysis, 2017

This classification system is used to develop an aircraft mix, which is the relative percentage of operations conducted by each of the four classes of aircraft (A, B, C, and D). The aircraft mix is used to calculate a mix index, which is then used for airfield capacity studies. The FAA defines the mix index as a mathematical expression, representing the percent of Class C aircraft, plus three times the percent of Class D aircraft (C+3D). The FAA has established mix index ranges for use in capacity calculations as listed below:

- 0 to 20
- 21 to 50
- 51 to 80
- 51 to 120
- 121 to 180

Section 2 – *Forecast* indicates that the airport experiences most of its traffic from aircraft falling into the A or B weight classifications outlined above. Since the FAA establishes mix index ranges for airport capacity calculations, it is not necessary to compute the actual mix index value. For the purposes of this analysis, it is assumed that the mix index range for MYF will be between zero and twenty throughout the planning period. This is based on the assumption that aircraft with maximum certified takeoff weights between 41,000 lbs. and 300,000 lbs. will not make up more than 20 percent of the Airport's total annual operations and that there will be no operations by aircraft with maximum certified takeoff weights in excess of 300,000 lbs.

Arrivals Percentage

The percent of arrivals is the ratio of arrivals to total operations. It is generally accepted that the total annual arrivals equals total departures, and that average daily arrivals will equal average daily departures. Therefore, 50 percent arrivals will be used in the capacity calculations for the Airport.

[1] Runway 10L/28R is designated as an ARC B-II runway. Runways 10R/28L and 5/23 are designated as an ARC B-I(S) runways.

Touch-and-Go Percentage

The touch and go percentage is the ratio of landings with an immediate takeoff to total operations. This type of operation is typically associated with flight training. The number of touch and go operations normally decreases as jet operations increase, the demand for service and number of total operations approach runway capacity, and/or weather conditions deteriorate. Typically, touch-and-go operations are assumed to be between zero and 50 percent of total operations.

Given the large flight training and general aviation presence at MYF, touch-and-go operations were found to account for 49.2 percent of all operations at the Airport.

Taxiway Access Factors

Taxiway entrance and exit locations are an important factor in determining the capacity of an airport's runway system. Runway capacities are highest when there are full-length parallel taxiways, ample runway entrance and exit taxiways, and no active runway crossings available. All of these components reduce the amount of time an aircraft remains on the runway. FAA AC 150/5060-5, *Airport Capacity and Delay*, identifies the criteria for determining taxiway exit factors at an airport. The criteria for exit factors are generally based on the mix index and the distance the taxiway exits are from the runway threshold and other taxiway connections. Taxiway exits were evaluated for operations in both directions on all three runways. **Table 3.3** depicts these findings. All runways have accessible taxiway exits between 2,000 feet and 4,000 feet of the landing threshold.

Table 3.3 - Taxiway Exit Ranges

Runway	Number of Exits within Optimal Range (2,000 ft. to 4,000 ft.)
10R	2
10L	2
28R	1
28L	2
5	1
23	2

Source: Atkins Analysis 2017

The taxiway system located at MYF has multiple areas that can cause delays due to the minimal taxiway access available for the primary runway, Runway 10L/28R. Runway 10L/28R does not have a dedicated full length parallel taxiway, and aircraft must cross Runway 10R/28L to get to and from the MYF apron areas when traveling to or from the general aviation facilities and apron areas.

Instrument Approach Capabilities

Instrument approach capability is qualified based upon the ability of an airport to safely accommodate aircraft operations during periods of inclement weather. Weather, in this regard, is characterized by two measures: local visibility in statute miles and the height of a substantial cloud ceiling above airport elevation. These two measures are termed "approach minima". Currently, Runway 28R is the only runway which has a published IAP. This runway has both an ILS LOC approach as well as a RNAV (GPS) approach with approach minima as low as 200 feet AGL cloud cover and 1 SM visibility. The remaining runways at MYF are classified as visual and have no straight in approaches. However, a circle to land approach is available which allows pilots to fly the ILS or RNAV approach into Runway 28R, and circle around to land at another runway once the Airport is in sight. The approach minima for this procedure are 500 feet AGL cloud cover and at least 1 SM visibility.

Weather Influences

Operational limitations during such times of inclement weather were accounted for in Airport Capacity computations. Weather data obtained from the NCDC is broken up into VFR and IFR observations. The data identified that IFR conditions (ceilings greater than 200 feet or less than 1,000 feet AGL and/or visibility greater than ½ mile but less than three miles) occur approximately 15.41 percent of the time at the airport.

Wind data was obtained and analyzed to accurately depict the most appropriate operational traffic flow during various wind conditions. This wind data was utilized to understand runway utilization scenarios and to better understand the most favorable operational scenarios. **Figures 3.1** and **3.2** depict the VFR and IFR wind observations over the past 10 years and corresponding runway traffic flows. **Table 3.4** depicts the airfield operating condition assumptions at MYF based on the NCDC weather data.

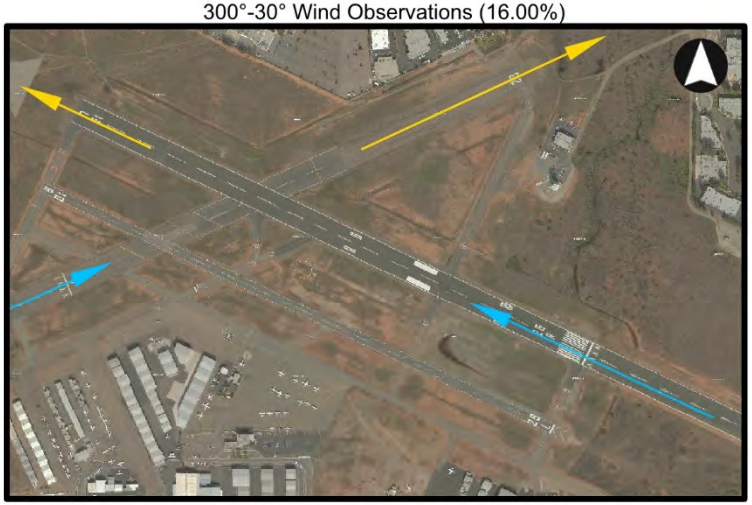
Table 3.4 – Airfield Operating Configurations

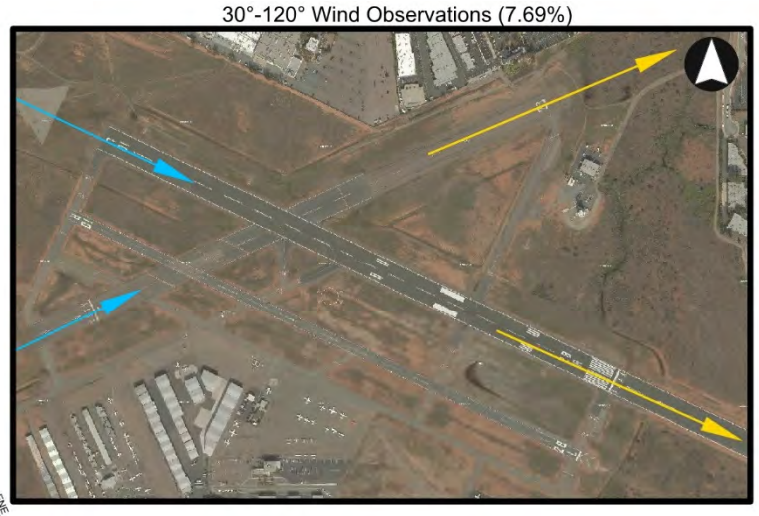
	030° through 210°	210° through 030°	210° through 030°	030° through 210°
Arrivals	10L, 10R, 5	28L, 28R, 23*	Runway 28 Only*	No Arrivals
Arrival Traffic Flows				N/A
IFR/VFR	VFR	VFR	IFR	IFR
Occurrence	17.44%	67.15%	11.19%	4.22%

Note: *Scenario includes calm wind observations

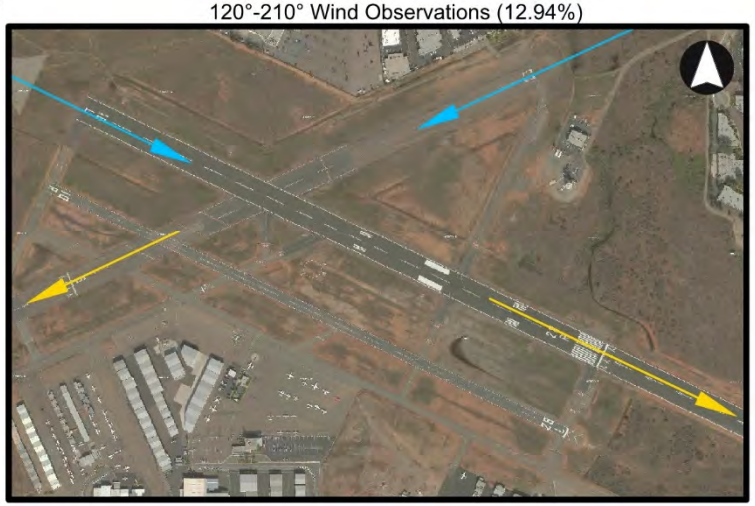
Source: NCDC Wind & Weather Operations, 2017, Atkins Analysis 2017

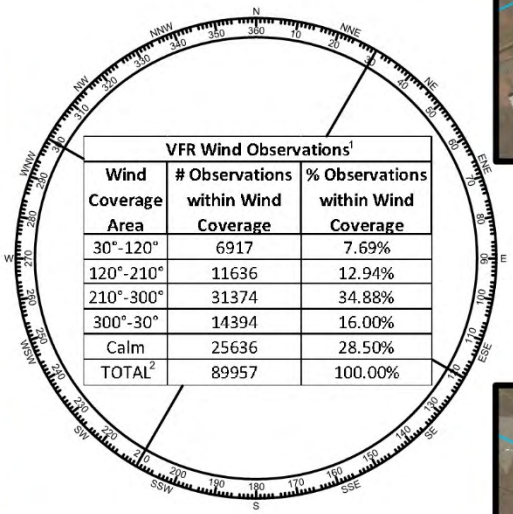
The NCDC data analyzed in this process does not identify specific visibility measurements, only that the observation met VFR or IFR criteria. Therefore, it is impossible to determine from the data set the percentage of time that the winds are from 030° and 210° in IFR conditions and meet the circling IAP approach minima of 1 statute mile and 500 feet for Runways 10L 10R and Runway 5. A conservative approach was adopted assuming that when these conditions occur, roughly 4.22 percent of the time, zero arrivals occur at MYF.











VFR Wind Observations[1]		
Wind Coverage Area	# Observations within Wind Coverage	% Observations within Wind Coverage
30°-120°	6917	7.69%
120°-210°	11636	12.94%
210°-300°	31374	34.88%
300°-30°	14394	16.00%
Calm	25636	28.50%
TOTAL[2]	89957	100.00%

[1]All wind observations are recorded FROM the listed direction
[2]Calm observations included in total

Source: Data reported at MYF for the period between 2007-2016 and provided by the National Ocean & Atmospheric Administration, National Climatic Data Center

SD Airports

Montgomery-Gibbs Executive Airport Master Plan

Figure 3.1

Runway Utilization
VFR Wind Observations

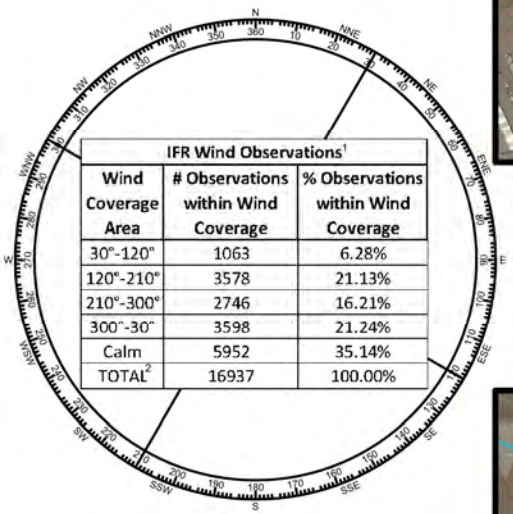
ATKINS

300°-30° Wind Observations (21.24%)



30°-120° Wind Observations (6.28%)





IFR Wind Observations[1]		
Wind Coverage Area	# Observations within Wind Coverage	% Observations within Wind Coverage
30°-120°	1063	6.28%
120°-210°	3578	21.13%
210°-300°	2746	16.21%
300°-30°	3598	21.24%
Calm	5952	35.14%
TOTAL[2]	16937	100.00%

210°-300° Wind Observations (16.21%)



120°-210° Wind Observations (21.13%)



[1]All wind observations are recorded FROM the listed direction
[2]Calm observations included in total

Source: Data reported at MYF for the period between 2007-2016 and provided by the National Ocean & Atmospheric Administration, National Climatic Data Center

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Montgomery-Gibbs Executive Airport Master Plan

Figure 3.2

Runway Utilization
IFR Wind Observations

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Airfield Capacity Calculations

The airfield capacity calculations in this section were performed using the parameters and assumptions discussed in the previous sections. These calculations also utilize data from the aviation demand forecast, as presented within **Section 2** for portions of the capacity calculations. The following sections outline the hourly capacities in VFR and IFR conditions, as well as the Airport's ASV.

Hourly Capacity Calculations

The hourly capacity of the runway facilities is determined by analyzing the appropriate VFR and IFR figures in AC 150/5060, *Airport Capacity and Delay*. The equation used to obtain the hourly capacity was taken from the FAA AC 150/5060-5, and is presented below.

Hourly Capacity = (C*) x (T) x (E)

Hourly Capacity Base (C*)

Hourly Capacity Base (C*) is calculated for both VFR conditions and IFR conditions utilizing FAA diagrams provided in AC 150/5060. By first imputing a combination of Mix Index and Arrivals Percentage, the Hourly Capacity is determined. At MYF the following hourly capacity bases were utilized:

- VFR - Operating Runway 10L, 10R, and Runway 5, (C*) = 200
- VFR – Operating Runway 28R, 28L, and Runway 23, (C*) = 200
- IFR – Operating Runway 28R Only, (C*)=59
- IFR – No Arrivals

Touch & Go Factor (T)

The Touch and Go Factor (T) is an expression of touch and go activity and its effect on capacity. The value is derived using tables within AC 150/5060. The factors in calculating (T) include the percent of operations which are touch and go and the mix index.

- In VFR scenarios at MYF, (T)= 1.14
- For IFR scenarios (T) is always assumed to be 1.00

Exit Factor (E)

Exit Factor (E) is an expression of the availability of taxiway exits within an appropriate range for the mix of aircraft operating at the airport, derived by selecting the appropriate tables provided within AC 150/5060. The primary factors in calculating (E) are the mix index, the number of exists which are within an appropriate exit range for arriving aircraft, and the percent arrivals (50 percent). To calculate capacity at MYF for various scenarios the following exit factors (E) were utilized:

- Operating Runways 10L, 10R & 5, (E)= .94
- Operating Runways 28R, 28L & 23, (E)= 1.0
- Operating Runway 28R only, (E)= .94

Hourly VFR Capacity

Hourly VFR capacities at MYF were calculated to be 228 when winds favor the use of Runways 28L, 28R, and Runway 23. Hourly VFR capacities were calculated to be 214 when winds favor the use of Runways 10L, 10R, and 5.

Hourly IFR Capacity

Hourly IFR capacities used similar assumptions to those used in the VFR hourly capacity calculations. However, maintaining greater separation between aircraft is generally required during IFR operations. Given that there are limited instrument approach capabilities at the airport, the hourly capacity base variable of the equation is lowered. This adjustment reduces the overall hourly capacity during IFR operations.

When winds favor operations on Runway 28L, 28R, and Runway 5 the hourly IFR Capacity is 55 due to the availability of specific instrument approach capabilities on Runway 28R. Hourly IFR capacities were calculated to be zero when winds favor the use of Runway 10L, 10R, and Runway 5 during IFR conditions, due to weather and operating characteristics assumptions.

Annual Service Volume

An airport's ASV is the maximum number of annual operations that can occur at the airport before an assumed maximum operational delay value is encountered. ASV is calculated based on the existing runway configuration, aircraft mix, and the parameters and assumptions identified herein, and incorporates the hourly VFR and IFR capacities calculated previously. Utilizing this information and the guidance provided in FAA AC 150/5060-5, *Airport Capacity and Delay* the Airport's existing conditions ASV was calculated to be 357,855 operations. It should be noted that the ASV represents the existing airfield capacity in its present configuration, with two east-west runways, one northeast-southwest runway, existing taxiway infrastructure, and ILS and GPS approach capabilities. The equation used to obtain the ASV were taken from the FAA AC 150/5060-5, and are presented below.

- Weighted Hourly Capacity (Cw) x Annual/Daily Demand (D) x Daily/Hourly Demand (H) = ASV.

The weighted hourly capacity (Cw) is an expression of hourly capacity which takes into account the percentage of time each runway use configuration is used for both VFR and IFR conditions. The Cw at MYF was calculated to be 196.682. The Annual/Daily Demand (D) represents the ratio of annual demand to average daily demand during the peak month. A typical Annual/Daily demand value for MYF was calculated to be is 308.72. The Daily/Hourly Demand (H) represents the ratio of average daily demand to average peak hour demand during the peak month. The Daily/Hourly Demand MYF was calculated to be 6.21.

- Cw x D x H = ASV → 196.682 x 308.72 x 6.21 = **377,069**

Additionally, according to the FAA, the following guidelines should be used to determine necessary steps as demand reaches designated levels.

- **60 percent of ASV** – The threshold at which planning for capacity improvements should begin.
- **80 percent of ASV** – The threshold at which planning for improvements should be complete and construction should begin.
- **100 percent of ASV** – The airport has reached the total number of annual operations it can accommodate, and capacity-enhancing improvements should be made to avoid extensive delays.

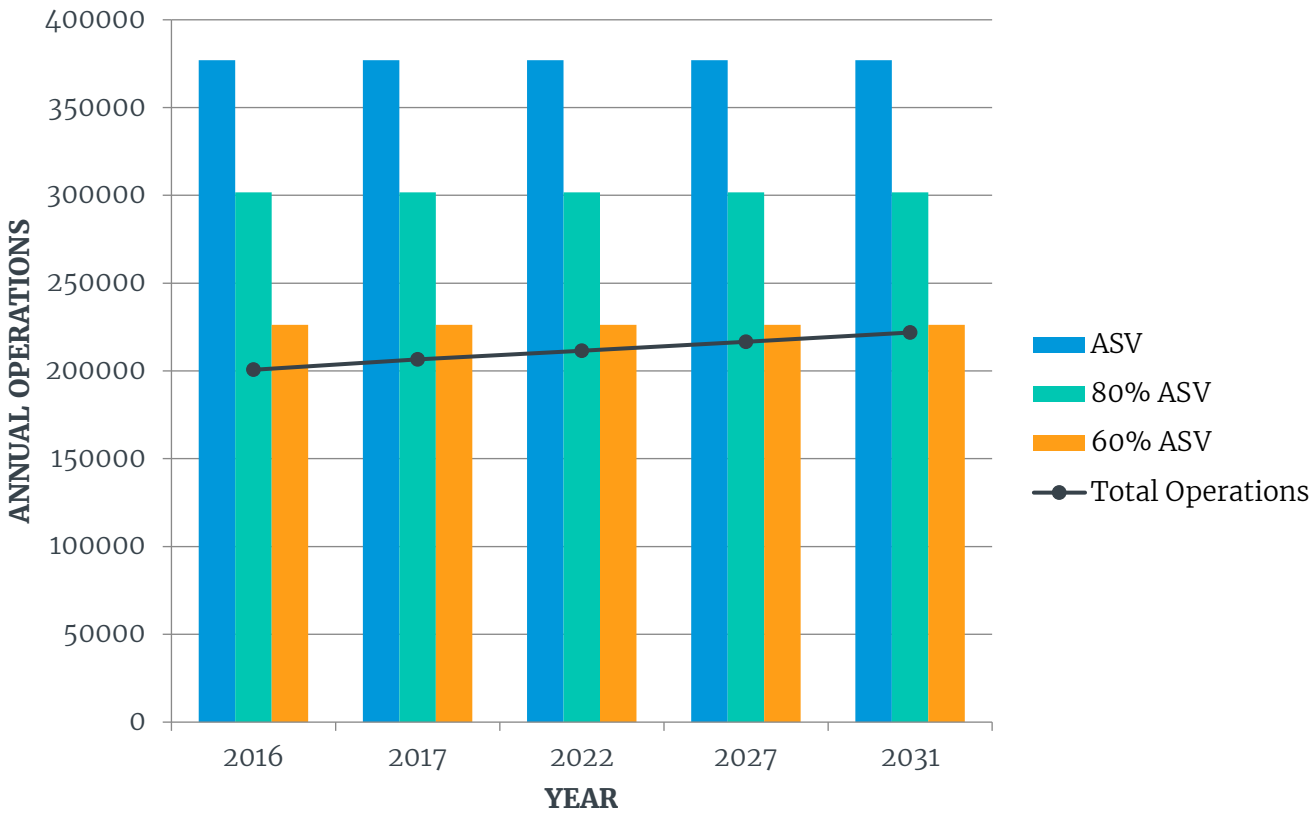
The current aviation demand for the base year 2016 at MYF, as presented in **Section 2 - *Forecast***, is 200,668 operations. This equals approximately 53.22 percent of the present ASV. **Table 3.5** illustrates the preferred aviation demand forecast for MYF and its relation to MYF's current ASV. **Figure 3.3** graphically depicts this relationship.

Table 3.5 - Annual Service Volume vs. Annual Demand

Year	Annual Operations	Annual Service Volume	Percent of Annual Service Volume
2016	200,668	**377,069**	53.22%
2022	206,517	**377,069**	54.77%
2027	211,521	**377,069**	56.10%
2032	216,647	**377,069**	57.46%
2037	221,896	**377,069**	58.85%

Sources: FAA AC 150/5060-5, Airport Capacity and Delay, and analysis by Atkins, 2017

Figure 3.3 Annual Service Volume vs. Annual Demand



Sources: FAA AC 150/5060-5, Airport Capacity and Delay, and analysis by Atkins, 2017.
Prepared by: Atkins, 2017.

Based on the calculated relationship between the Airport's existing ASV and forecast of aviation demand, the airport does not have a need to plan for capacity enhancing runway and taxiway projects within the forecast period.

Aircraft Delay

Although the analysis indicated that MYF's current and forecast level of aeronautical activity is not anticipated to exceed the airfield's calculated capacity, the potential for aircraft delay still exists due to other factors such as ATC procedures and weather conditions.

3.3 Critical Aircraft

An initial step in identifying the Airport's potential runway and taxiway facility requirements is the establishment of fundamental development guidelines for the largest or most demanding aircraft anticipated to make regular use of the airport facilities. Airport improvements are planned and developed per the established ARC for the airport and then for each runway. The critical aircraft that consistently makes substantial use of the Airport determines an airport's ARC. FAA Order 5090.3B, *Field Formulation of the National Plan of Integrated Airport Systems*, defines "substantial use" as 500 or more annual aircraft operations. An airport's critical aircraft affects key aspects of design, such as the sizing of runways, taxiways/lanes, and the location of aircraft parking areas, hangar facilities, and protected airspace surfaces.

As discussed in more detail in **Section 2**, MYF has two critical aircraft identified for the three runways. Per the approved FAA forecast, the Beechcraft King Air 350 was selected as the critical aircraft for Runway 10L/28R. The Cessna 421 was identified as the critical aircraft for Runway 10R/28L and Runway 5/23.

3.4 Airside Facility Requirements

FAA standards are utilized in this analysis for developing airport facilities capable of meeting both existing and forecasted levels of aviation activity. FAA AC 150/5300-13A, *Airport Design*, uses coding systems to relate airport design criteria to the operational and physical characteristics of the aircraft that operate, or are projected to operate, at an airport. These airport design criteria will further dictate the future need for expanded airfield infrastructure and operational parameters to best plan and meet the forecasted future operations.

Runway Design Code (RDC)

The RDC signifies standards to which the runway is to be built and maintained. The AAC, ADG, and approach visibility minimums are combined to form the RDC of a specific runway. The AAC portion of the RDC relates to the aircraft approach speed, as depicted in **Table 3.6**. The ADG is the second component of the RDC and is represented by a Roman numeral as depicted in **Table 3.7**. The ADG relates to the aircraft wingspan or tail height. The final component of the RDC relates to the visibility minimums for the instrument approaches into each runway as depicted in **Table 3.8**. The runway reference code (RRC) of each runway at MYF differs due to varying critical aircraft and visibility minimums. **Table 3.9** outlines the RRC components for each runway facility.

Table 3.6 - Aircraft Approach Category

Aircraft Approach Category	Approach Speed
A	Approach speed less than 91 knots
B	Approach speed 91 knots or more but less than 121 knots
C	Approach speed 121 knots or more but less than 141 knots
D	Approach speed 141 knots or more but less than 166 knots
E	Approach speed 166 knots or more

Source: FAA AC 150/5300-13A, *Airport Design*

Table 3.7 - Airplane Design Group

Group #	Tail Height (FT)	Wingspan (FT)
I	< 20	< 49
II	20 - < 30	49 - < 79
III	30 - < 45	79 - < 118
IV	45 - < 60	118 - < 171
V	60 - < 66	171 - < 214
VI	66 - < 80	214 - < 262

Source: FAA AC 150/5300-13A, *Airport Design*

Table 3.8 - Visibility Minimums

RVR (FT)	Flight Visibility Category (statute mile)
VIS	Visual Approach
5000	Greater than or equal to 1 mile
4000	Lower than 1 mile but not lower than ¾ mile
2400	Lower than 3/4 mile but not lower than 1/2 mile
1600	Lower than 1/2 mile but not lower than 1/4 mile
1200	Lower than 1/4 mile

Source: FAA AC 150/5300-13A, *Airport Design*

Table 3.9 - MYF Runway Design Codes

Runway	Critical Aircraft	AAC	ADG	Visibility Minimums (RVR) (FT)
10L/28R	King Air 350	B	II	2,400
10R/28L	Cessna 421	B	I(S)	VIS
5/23	Cessna 421	B	I(S)	VIS

Source: AC 150/5300-13A, *Airport Design*, C&S Engineers, Inc., Atkins Analysis 2017

Airport Reference Code (ARC)

Per FAA AC 150/5300-13A, the ARC is a system used to relate airport design criteria to the planner or designer and is based on the Airport's highest RDC. Airport improvements can be planned and developed per the established ARC for an entire airport. The ARC is based on a combination of AAC and ADG, described in **Table 3.6** and **Table 3.7** respectively. The existing and future ARC for MYF is B-II.

Runway Requirements

This portion of **Section 3** will look at MYF's three runways and whether or not they meet both existing and future requirements. Specifically, the runways' general characteristics will be analyzed with respect to FAA design and safety requirements and conformance with the recommendations. Runway designation and length requirements will also be reviewed.

Runway Width

Runway width standards are established in FAA AC 150/5300-13A and are based on RDC criteria. **Table 3.10** outlines the FAA runway width standards, and the existing runway facilities at MYF. Currently

MYF meets or exceeds the existing and future FAA requirements for runway width on all runways.

Table 3.10 -Runway Width

Runway	RDC	FAA Requirement Width (FT)	Existing Width (FT)
10L/28R	B-II-2400	100	150
10R/28L	B-I(S)-VIS	60	60
5/23	B-I(S)-VIS	60	75

Source: 150/5300-13A, *Airport Design*, C&S Engineers, Inc., Atkins Analysis 2017

Runway Length: Takeoff Distance

Runway length requirements are based on a variety of factors, the most notable of which is the takeoff distance of the critical aircraft operating on the runway. The departure requirements are often the most critical for measuring runway length required since aircraft typically require more runway length for takeoff than they do for landing. Average high temperatures and the elevation of the runway are other factors that affect runway length requirements. The mild temperatures and low elevation of MYF make these factors less consequential. FAA AC 150/5325-4B, *Runway Length Requirements of Airport Design*, provides guidance that suggests recommending runway lengths based on a family grouping of aircraft. This grouping method is used when the critical aircraft has a MTOW less than 60,000 pounds.

Fleet Mix and Critical Aircraft

In accordance with AC 150/5325-4B, the existing fleet mix was analyzed in detail to verify the type of runway length analysis required. **Table 3.11** lists the aircraft fleet mix obtained from an analysis of FAA TFMSC data of aircraft operations for the 2016 calendar year by aircraft type, ARC, and MTOW. Most of the aircraft outlined in **Table 3.11** fall within the range of 12,500 pounds to 60,000 pounds. Therefore, a family grouping of aircraft design approach was used when to calculate runway length requirements.

Table 3.11 - Surveyed Jet Fleet Mix

Aircraft	ARC	MTOW	Aircraft Type
Eclipse 500	A-I	5,950	Jet
Cessna Citation I	B-I	11,850	Jet
Cessna Citation II	B-II	13,300	Jet
Cessna Citation CJ3	B-II	13,870	Jet
Bombardier Learjet 35/36	D-I	18,000	Jet
Cessna Citation CJ4	C-I	17,110	Jet

Source: TFMSC data January 2016-December-2016, C&S Engineers, Inc., Atkins Analysis 2017

Based on the forecast analysis that was completed for MYF, the critical aircraft and additional aircraft selected for this analysis fall between 12,500 pounds and 60,000 pounds. Therefore, the runway design curves found in AC 150/5325-4B, Chapter 3 were used to analyze the existing length of Runway 10L-28R. The design procedure for the aircraft weight category requires the following information: airport elevation above MSL, mean daily maximum temperature of the hottest month at the Airport, and the critical design airplanes under evaluation with their respective useful loads. Once this information is obtained, it is plotted on a set of performance curves developed from FAA-approved airplane flight manuals in accordance with the provisions of 14 Code of Federal Regulations, Part 25, *Airworthiness Standards: Transport Category Airplanes*, and Part 91, *General Operating and Flight Rules*. An example of these performance curves is provided in **Figure 3.4**.

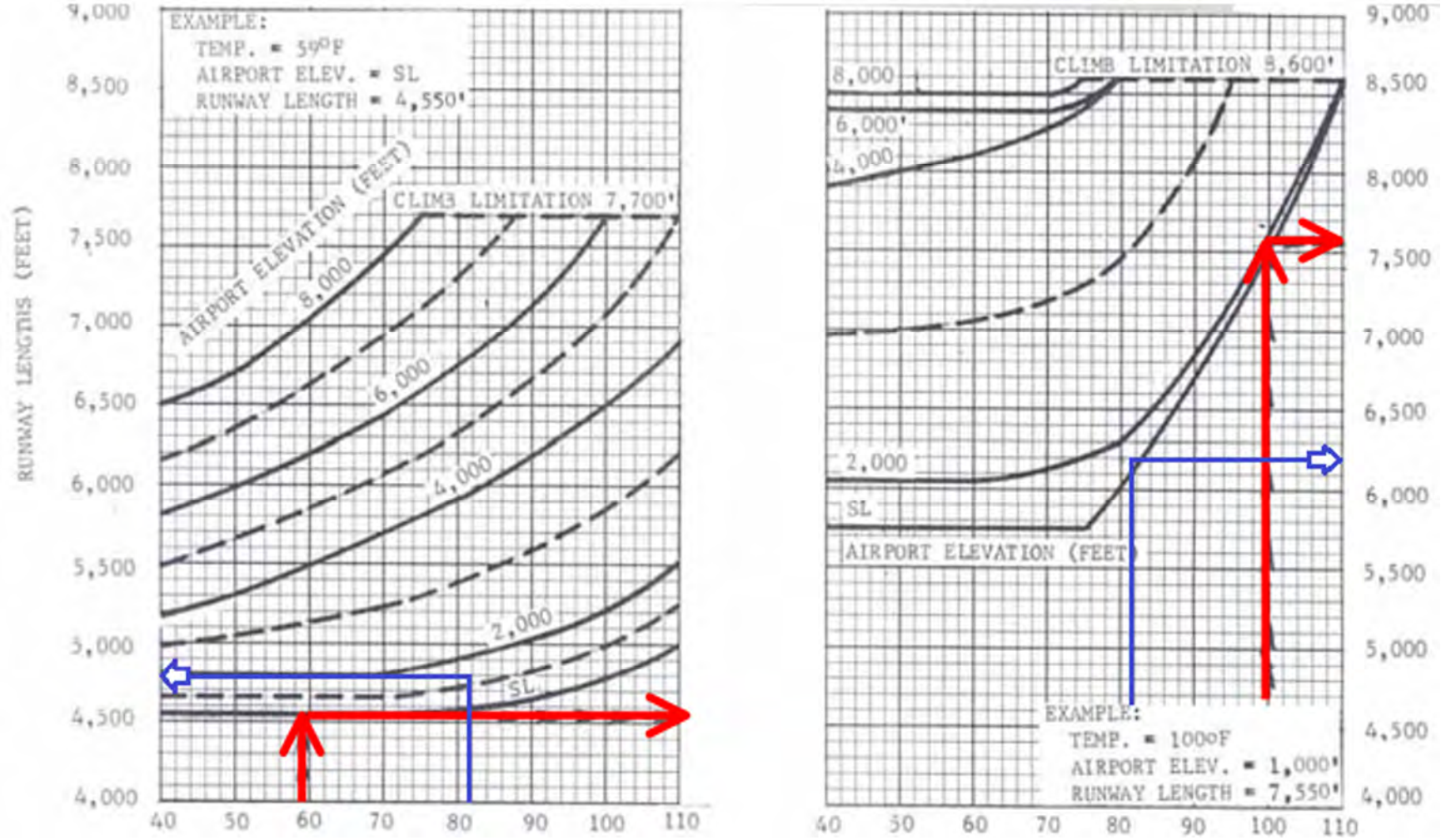
The elevation at MYF is 427.3 feet above MSL. The mean daily maximum temperature of the hottest month at the Airport is 80.9°F. By plotting this information on the FAA performance curves published in AC 150/5325-4B, the following runway lengths requirements were obtained.

- To accommodate 75 percent of MYF's B-II fleet at 60 percent useful load a runway length of 3,700 feet is required.
- To accommodate 100 percent of MYF's B-II fleet at 60 percent useful load, a length of 5,250 feet is required.
- To accommodate 75 percent of MYF's B-II fleet at 90 percent useful load a runway length of 6,200 feet would be necessary.
- To accommodate 100 percent of MYF's B-II fleet at 90 percent useful load, a length of 7,600 feet is required.

Currently, the longest runway available at MYF is Runway 10L/28R measuring 4,598 ft. The existing runway length for Runway 10L/28R serves at least 75 percent of the B-II fleet mix with 60 percent useful loads. Runway 10L/28R does meet the minimum threshold for serving the existing and proposed fleet mix. However, it is important to note that any future planned runway length increases would increase the effective useful loads for aircraft, and the percentage of B-II aircraft that could utilize the facilities. Therefore, potential for runway length increases are evaluated as part of **Section 4**.

Runway Length: Landing Distance

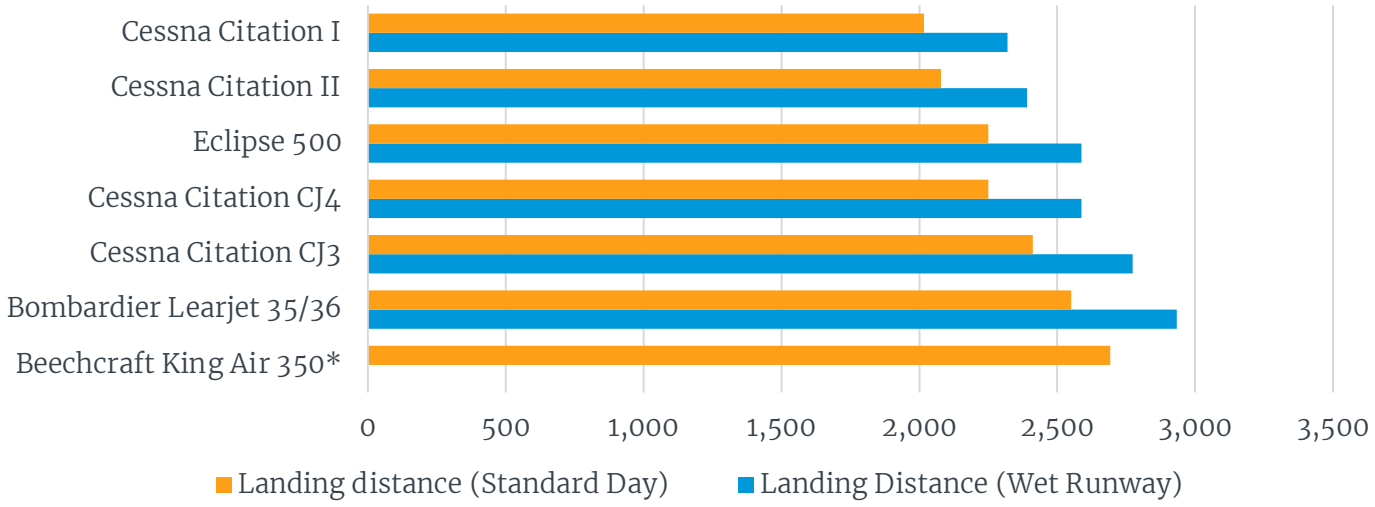
Displaced thresholds at MYF cause Landing Distance Available (LDA) on Runways 5 and 28R to be less than the published runway length. Per FAA AC 150/5325-4B, *Runway Length Requirements for Airport Design*, the landing length required derives from the specific aircraft's performance metrics provided by the respective manufacturer. Detailed performance information and charts for individual aircraft contained in **Figure 3.5** is difficult to obtain, as public access to performance information is limited. However, jetadvisors.com provides estimates of landing distance requirements based on standard day (15 °C), sea level conditions.



Source: AC 150/5325-4B, *Runway Length Requirements for Airport Design*, Atkins Analysis 2017

Figure 3.4
Example Performance Curve

Figure 3.5 – Fleet Mix Landing Distance Required (FT)



*Note: Contaminated runway adjustment factor not applicable for Turbo-Prop Aircraft
Source: JetAdvisors.com, 2017, Atkins Analysis 2017

Due to the arid climate, the City of San Diego receives less than 12 inches of rainfall per year and wet conditions are rare at MYF. Yet, in certain cases where aircraft are to perform under wet runway conditions, a standard of 15 percent increase in the listed landing length required is used to adjust for wet runway conditions. For the Learjet 35, the most demanding aircraft in the fleet mix, the adjustment brings the landing length required to 2,933 feet.

Runway Thresholds

As noted in **Section 1**, the Runway 28R threshold is displaced 1,199 feet and the Runway 5 threshold is displaced 390 feet. The runway length analysis found that existing threshold locations do not have a significant impact on the operation of the existing jet fleet mix at MYF. Additional data, including detailed mapping and obstruction data, was analyzed as part of the ALP preparation to confirm the location of the existing displaced thresholds. Recommendations for the future location of all runway thresholds at MYF is addressed in **Section 5**.

Runway Protective Surfaces

Runway protective surfaces such as the Runway Safety Area, Runway Object Free Area, and Runway Protection Zone aim to protect aircraft, people, and property in the case of an aircraft deviating from its intended course while conducting conventional runway operations. The following sections outline the existing and future criteria for the runway protective surfaces at MYF. At this time, detailed survey information such as pavement, topography and structures has yet to be analyzed in order to identify deficiencies. An initial visual inspection of the runway protective surfaces revealed no issues. A detailed analysis of protective surfaces utilizing updated survey data is found in **Section 5**.

Runway Safety Area

A RSA is a graded surface centered on a runway that is required to be free of all objects except for those that are 'fixed by function' such as runway lights and certain NAVAIDS. The purpose of the RSA is to protect aircraft in the event of an under-shoot or overrun from a runway during landing or take-off operations. The area must be able to support emergency vehicle operations and maintenance vehicles and is required to be graded to slope away from the runway at 1.5 to 5.0 percent. The width and length of an RSA depend upon an airport's RDC and approach visibility minimums. Meeting RSA requirements is one of the FAA's highest priorities in maintaining safety at the nation's airports.

Table 3.12 lists the Airport's existing and future RSA requirements. The compliance of the RSA with all relevant FAA standards is discussed in **Section 5**.

Table 3.12 – Runway Safety Area Dimensions

Runway	RDC	RSA Width (FT)	Length Beyond Runway End (FT)
10L/28R	B-II-2400	300	600
10R/28L	B-I(S)-VIS	120	240
5/23	B-I(S)-VIS	120	240

Source: FAA AC 150/5300-13A, *Airport Design*, Atkins Analysis 2017

Runway Object Free Area - ROFA

Similar to the RSA, the ROFA must be free of objects except those required to support air navigation and ground maneuvering operations. The function of the ROFA, also centered on the runway, is to enhance the safety of aircraft operating on the runway. It is not permissible to park an airplane within the ROFA. The width and length of the ROFA depend upon an airport's specific RDC and approach visibility minima. The ROFA does not have specific slope requirements, but the terrain within the ROFA must be relatively smooth and graded to be at or below the edge of the RSA. The compliance of the ROFA with all relevant FAA standards is discussed in **Section 5**. **Table 3.13** notes the ROFA dimensions for MYF:

Table 3.13 - Runway Object Free Area Dimensions

Runway	RDC	ROFA Width (FT)	Length Beyond Runway End (FT)
10L/28R	B-II-2400	800	600
10R/28L	B-I(S)-VIS	250	240
5/23	B-I(S)-VIS	250	240

Source: FAA AC 150/5300-13A, *Airport Design*, Atkins Analysis 2017

Runway Protection Zones

A RPZ is an area centered symmetrically on an extended runway centerline. The RPZ has a trapezoidal shape and extends prior to each runway end. The RPZ is aimed at enhancing the safety of people and property on the ground by limiting and/or restricting the construction of certain structures within its bounds. This area should be free of land uses that create glare, smoke, or other hazards to air navigation. Additionally the FAA requires that no vertical structures are constructed within the extents of the RPZ.

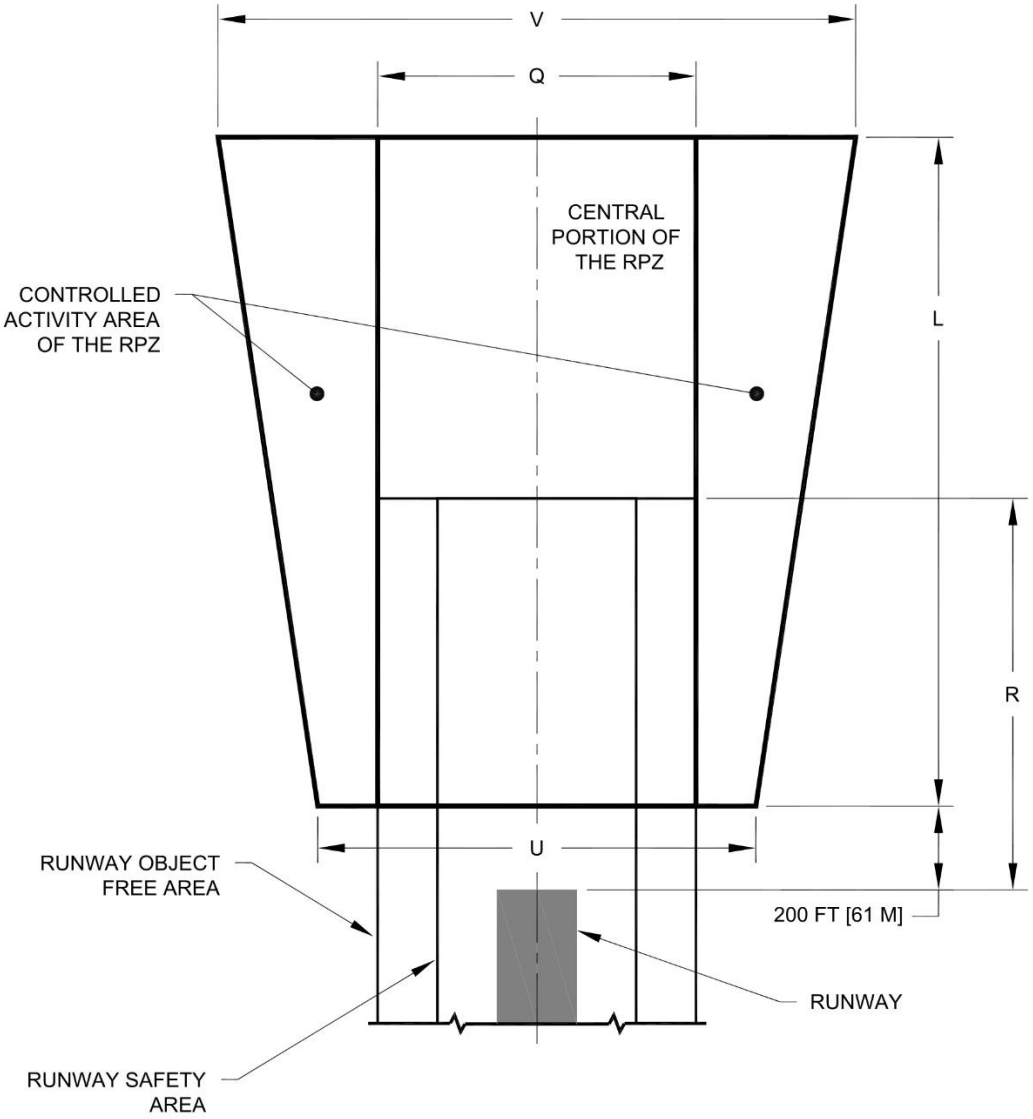
The dimensions of an RPZ depend on each runway's RDC. With no proposed reductions in instrument approach visibility minimums, the size and dimensions of the existing RPZ's at MYF are not anticipated to change throughout the planning period. **Table 3.14** illustrates the RPZ requirements for B-I and B-II RDC's. **Figure 3.6** displays the dimensions for RSA, ROFA, and RPZ.

Table 3.14 - Runway Protection Zones (RPZs)

	RDC	Length (FT)	Inner Width (FT)	Outer Width (FT)
Approach RPZ				
10L/28R	B-II-2400	1000 / 2,500	500 / 1,000	700 / 1,750
10R/28L	B-I(S)-VIS	1,000	250	450
5/23	B-I(S)-VIS	1,000	250	450
Departure RPZ				
10L/28R	B-II-2400	1000	500	700
10R/28L	B-I(S)-VIS	1,000	250	450
5/23	B-I(S)-VIS	1,000	250	450

Source: FAA AC 150/5300-13, *Airport Design*, Atkins Analysis 2017

Figure 3.6 – Example RSA, ROFA, and RPZ Dimensions



Source: FAA AC 150/5300-13, *Airport Design*

Runway Designations

A runway designation is identified by the whole number nearest to the magnetic azimuth of the runway when oriented along the runway centerline as if on approach to that runway end. This number is then rounded off to the nearest unit of 10. Magnetic azimuth is determined by adjusting the geodetic azimuth associated with a runway to compensate for magnetic declination. Magnetic declination is defined as the difference between true north and magnetic north. The value of magnetic declination varies over time and global location. Magnetic declination is a natural process and periodically requires the re-designation of runways. **Table 3.15** shows the runway's true and magnetic bearing, along with the current magnetic declination.

Table 3.15 - Runway Magnetic Bearing

Runway	True Bearing	Magnetic Declination	Magnetic Bearing	Runway Designation Required
10L	115° 28'	11° 33' E	103° 95'	10
28R	295° 28'	11° 33' E	283° 95'	28
10R	115° 28'	11° 33' E	103° 95'	10
28L	295° 28'	11° 33' E	283° 95'	28
5	65° 28'	11° 33' E	53° 95'	5
23	245° 28'	11° 33' E	233° 95'	23

Source: NOAA National Centers for Environmental Information (NECI), Atkins Analysis 2017

The current rate of change is 0° 5' W per year according to the NOAA National Centers for Environmental Information (NECI). Based on this rate of change, the runway designations will not need to be adjusted throughout the planning period. It is important to note that magnetic declination can vary over time due to fluctuations in the Earth's magnetic fields. It is critical that the declination be reviewed on a semi-annual basis and before any runway work requiring marking modifications.

Runway Strength

A Pavement Maintenance Management Plan (PMMP) was completed in 2017 as a part of this Master Plan. It determined the existing strength of the runways as shown in **Table 3.16**. The PMMP is included in its entirety as **Appendix H** to this report.

Table 3.16 – Runway Strength

Runway	Single Wheel (lbs)	Dual Wheel (lbs)
10L/28R	90,000	123,000
10R/28L	109,000	154,000
5/23	120,000	214,000

Source: Atkins Analysis 2017

Taxiway Requirements

Taxiway systems should provide safe and efficient routes for aircraft ground movement to and from an airports runways and apron areas. The type and location of taxiways in relation to a runway system have a significant impact on airfield capacity. As traffic increases, the taxiway system can limit an airport's overall capacity, especially if the configuration results in frequent runway crossings by taxiing aircraft or does not provide sufficient access to airport facilities.

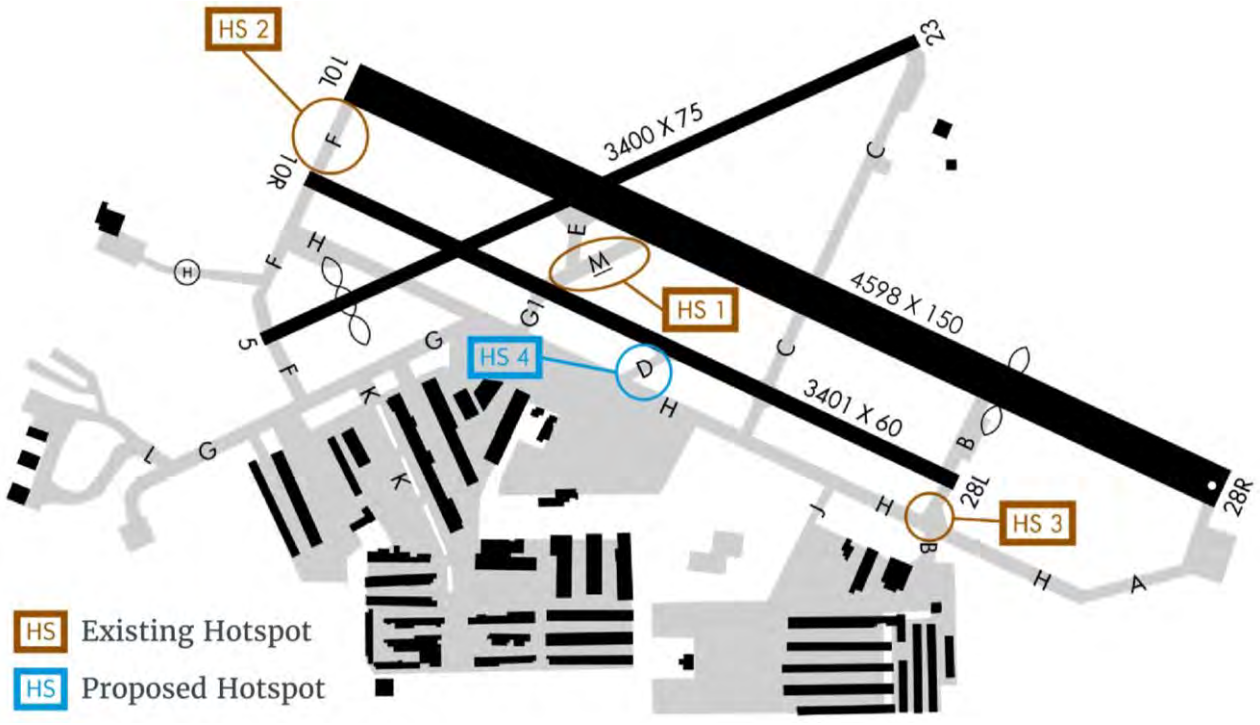
FAA guidance found in FAA AC 150/5300-13A, recommends that a taxiway system should:

- Provide each runway with a full-length parallel taxiway
- Have as many bypasses, multiple accesses, or connector taxiways as possible to each runway end
- Provide taxiway run-up / holding bay areas for each runway end
- Have the most direct routes possible
- Have adequate curve and fillet radii
- Avoid areas where ground congestion may occur

The existing MYF taxiway system meets width and spacing requirements, yet all fillets found at taxiway/runway and taxiway/taxiway intersections do not meet the current FAA design standard. Historically, the FAA has permitted several methodologies for designing and constructing taxiway fillets. However, with the most recent release of FAA 150/5300-13A Change 1, the options have been reduced to a single standard that ensures all wheels of an aircraft tracking on the taxiway centerline will maintain sufficient clearance from the taxiway edge. All of the taxiway/runway and taxiway/taxiway intersections at MYF have pavement deficiencies in light of this new standard. As a result, all airfield fillets should be upgraded to comply with current FAA design standards regarding taxiway fillets.

The FAA has identified three locations on the airfield as hotspots and they are pictured below on **Figure 3.7**. Hotspots are identified when there is an increased risk of airfield incursions or there has historically been a large number of incursions in a specific area. Another potential area that can be considered a hotspot includes Taxiway D, which grants direct access from the apron to an active runway. The FAA has categorized this as non-compliant and hazardous taxiway geometry. In order to create a safe operating airfield, the utility and alignment of these taxiways should be reconsidered and potentially altered to minimize the risk of an unanticipated runway crossing or airfield incursion.

Figure 3.7 – Existing and Proposed Hotspots



Source: FAA AC 150/5300-13, *Airport Design*, C&S Engineers, Inc.

Full Length Parallel Taxiway

Currently, only Runway 10R/28L has a full-length parallel taxiway. Runway 10L/28R can be seen as the primary runway due to its IFR capabilities on Runway 28R and its larger weight bearing characteristics. Aircraft need to ultimately cross Runway 10R/28L in order to reach the airfield's primary apron. This can possibly cause delay and congestion due to the necessary holding before crossing said runway.

As stated previously, it is preferable to have a full-length parallel taxiway to accommodate every active runway on the airfield. This is to keep traffic flow from becoming congested in any single location and to ultimately increase the Airport's capacity and minimize delays.

Aircraft Run Up Areas

At MYF, there are currently two designated aircraft run up areas and two additional areas that are utilized as such. These are used by pilots to preform pre-takeoff procedures including instrument and engine performance checks as well as to hold while waiting for clearance from ATC. Ideally the aircraft run up areas should be designed to provide a clearly marked area for pilots to park that will keep their aircraft clear of the active taxiway. The designated run up areas are located south of the Runway 28R end on Taxiway A, and south of the Runway 10R end at the intersection of Taxiway F and Taxiway H. The other locations used as run up areas are found south of the Runway 23 end on Taxiway C, and south of the Runway 28L end on Taxiway B.

Ideally, run up areas are located at the runway ends directly off the taxiway and clear of any protected runway or taxiway areas. General design of holding bays include assured wingtip clearance of established critical aircraft and proper markings to guide pilots safely. Markings should be labeled to have a specified area where aircraft can turn within the holding bays to not line up nose to tail with other aircraft. This will allow for aircraft to easily enter and exit the holding bay without interfering with other aircraft in the same holding bay.

The existing run up areas at MYF have several deficiencies. Both of the designated run up areas lack the proper markings to guide aircraft in and out. The boundaries to the area south of 28R should be adjusted to clear the Taxiway A TOFA, and the boundaries of the area south of the Runway 10R end should be adjusted to remain clear of the Runway 5/23 Runway Obstacle Free Zone. Additionally, the two other areas mentioned above that are being used as run up areas should cease to be used for this purpose until widening the area, as both of them lack sufficient depth to clear the TOFA.

Any proposed hold bay modifications, as discussed in **Section 5**, will aim to meet the following criteria:

- Markings should be placed to direct aircraft to turn perpendicular or angled to the taxiway, which will create independent standing areas so aircraft can enter and exit at ease, avoid prop wash during run up, and ensure proper wingtip clearance.
- Pavement area should be increased to address capacity issues and ensure proper hold bay depth.
- Identify additional hold bay locations to maximize run up area availability for each runway end.

Airfield Pavement

An airfield pavement condition analysis was conducted as part of the Pavement Maintenance Management Plan completed in February 2018 for MYF. The intent of the study was to present comprehensive classifications for all airfield pavement sections utilizing the industry standard

Pavement Condition Index (PCI) metric. In this method, pavement sections are inspected for distress types and their severities. The inspection data is evaluated to determine the PCI of the pavement. Pavement is then classified using its PCI in categories of good, fair, or poor. The pavement condition findings are depicted in **Figure 3.8**. It is recommended during capital improvement program development efforts that pavement condition be utilized as a factor in prioritizing future pavement rehabilitation projects. **Table 3.17**, lists the pavement sections that have been classified as having a "fair" or "poor" condition in the Pavement Investigation Study findings.

Runway Pavement

The data for the pavement condition analysis shows that portions of Runway 10R-28L has been classified as having a "poor" PCI rating. The sections include Runway 28L end to Taxiway M.

Taxiway Pavement

The data for the Pavement Maintenance Management Plan shows that portions of the taxiway pavement are currently in need of rehabilitation. The specific sections of taxiway pavement that has been classified as "poor" condition is as follows:

- Taxiway H: From the connection of Taxiway A to Taxiway G
- Taxiway B: In between Runway 28L end and Taxiway A. As well as half way starting at the Runway 28L end and proceeding towards Runway 10L-28R
- Taxiway D: All of Taxiway D
- Taxiway C: All the pavement between Taxiway A and Runway 10R-28L. As well as starting at Runway 10R-28L and proceeding halfway towards Runway 10L-28R
- Taxiway L: All of Taxiway L
- Taxiway K: All of Taxiway K
- Helicopter Taxiway: All pavement

Notes

1. The Rating of existing pavement condition index (PCI) is based on limited visual survey performed on August 14–17, 2017 and the available as-built information. Assumptions were made as necessary when an exact construction completion date and/or maintenance treatment date are unknown.

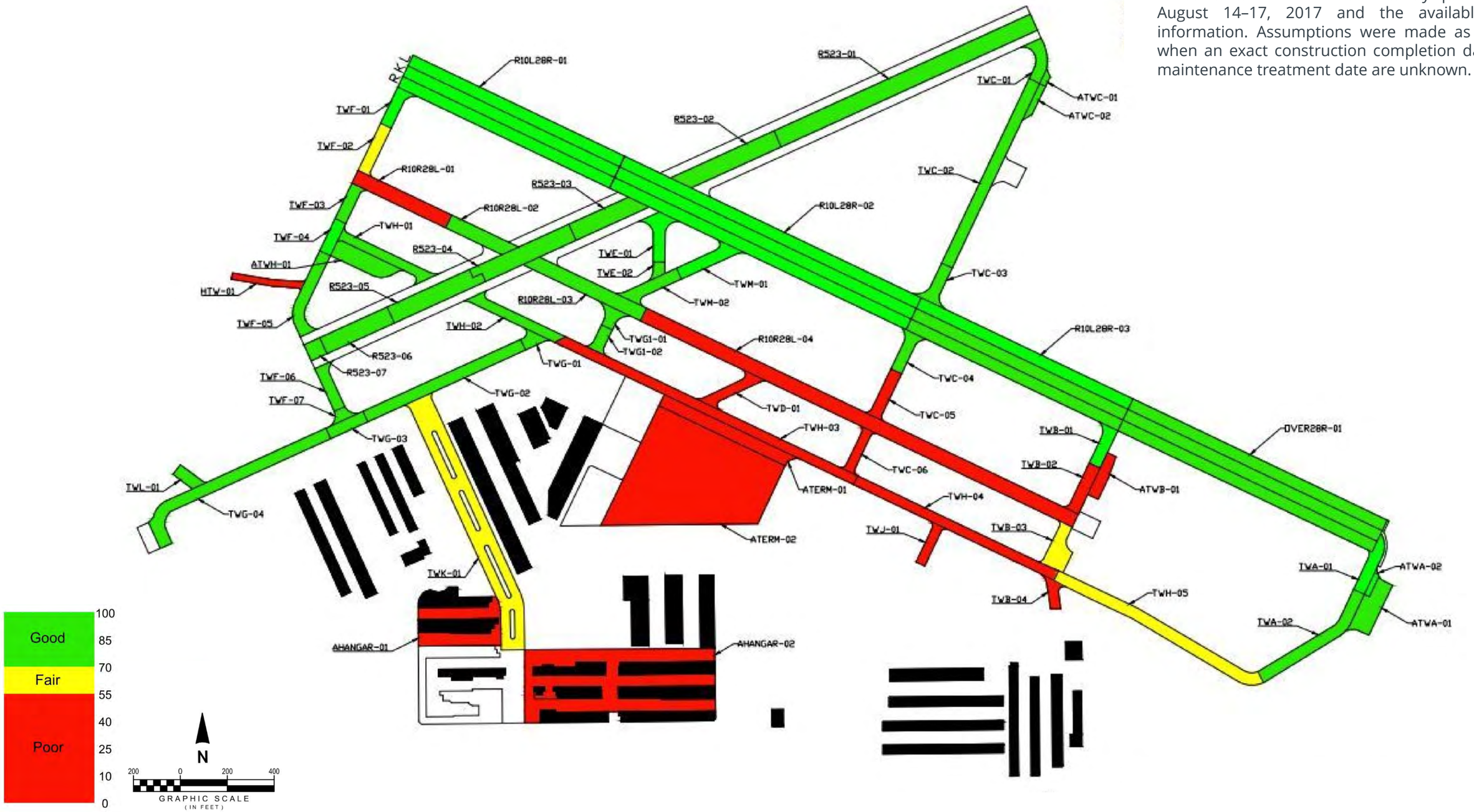


Figure 3.8
Pavement Condition Index (PCI)

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Apron Pavement

The data for the pavement condition analysis shows that surveyed MYF's apron area has been classified as having a "poor" PCI rating. This includes the sections of:

- Apron area located directly off of Taxiway H
- Apron area located directly south of the previously listed apron area. This area includes the hangars located on the southern portion of MYF property.
- Apron area located directly to the west of the end of Taxiway K. This hangar area includes the hangars that are positioned to have the east-west direction.

Table 3.17 - Fair and Poor Pavement Sections

Type of Area	Section Code	PCI Rating
Runway 10R-28L	R10R28L-04	Poor
Runway 10R-28L	R10R28L-01	Poor
Taxiway H	TWH-04	Poor
Taxiway H	TWH-05	Fair
Taxiway B	TWB-03	Fair
Taxiway B	TWB-02	Poor
Taxiway B	TWB-04	Poor
Taxiway C	TWC-05	Poor
Taxiway C	TWC-06	Poor
Taxiway D	TWD-01	Poor
Taxiway J	TWJ-01	Poor
Taxiway F	TWF-02	Fair
Heli-Taxiway	HTW-01	Poor
Taxiway K	TWK-01	Fair
Apron	ATERM-01	Poor
Apron	ATERM-02	Poor
Apron (Hangar)	AHANGAR-01	Poor
Apron (Hangar)	AHANGAR-02	Poor
Apron (Run-up)	ATWB-01	Poor

Source: Atkins Analysis 2017

Airfield Lighting

Section 1 describes the existing condition of airfield lighting equipment at MYF. Currently, MYF has appropriate lighting equipment including a Medium Intensity Approach Lighting System (MALSR), Runway End Identifier Lights (REIL), and Runway and Taxiway Edge Lighting where required. Therefore, no major lighting deficiencies currently exist at MYF. However, lighting will be analyzed in **Section 5** when making any proposed improvements to instrument approach minima. Finally, any future improvements to or implementation of lighting equipment should feature energy-saving LED technologies where able and when practical.

Signage

Section 1 describes existing conditions of airfield signage at MYF. While no specific recommendations for signage improvement are identified, airfield signage should be expanded and updated as necessary in conjunction with any airfield improvement projects.

Airfield Marking

Section 1 describes existing conditions of airfield markings at MYF. While no specific recommendations for marking improvements are identified, airfield markings should be expanded and updated as necessary in conjunction with any airfield improvement projects.

3.5 Landside Facility Requirements

The planning of landside facilities is based on both airside and landside capacity. The requirements for terminal and support area facilities has been determined for the 20-year planning period. The principal operating elements covered under these analyses for general aviation requirements include:

- Taxilanes
- Aircraft Hangars
- Aircraft Parking Apron
- Fueling Facilities
- Terminal/Airport Administration Building
- Support Facilities
- Perimeter/Security Fencing and Access Gates
- Utilities
- Vehicle Access and Parking
- Land Use

Taxilanes

A taxilane is a used by aircraft for low speed and precise taxiing. They are generally located outside of the movement area, meaning that aircraft may navigate on them without receiving clearance from the air traffic control tower. MYF has a number of taxilanes coming off of Taxiway G and Taxiway H that lead to the aircraft parking aprons and hangars. The FAA requires that taxilanes be designed with both a Taxilane Safety Area (TSA) and Taxilane Object Free Area (TOFA) that are based on the ADG of the design aircraft and are intended to protect aircraft using taxilanes and persons, structures, and other aircraft adjacent to taxilanes. The TSA and TOFA are centered on the taxilane centerline and for an ADG II aircraft the width measures 79 feet and 115 feet respectively. A number of taxilanes at MYF do not meet the FAA established TSA requirements and nearly all of the taxilanes fail to meet the TOFA requirements. Additionally, parallel Taxilane K does not meet the centerline separation requirement of 97 feet. General aviation airports often do not meet the full FAA design standards in regards to taxilane safety areas as they are frequently designed with hangar rows and taxilanes that

are specifically intended for use by an aircraft significantly smaller than the design aircraft. Additionally, the FAA will often allow non-compliant taxilanes to remain, but will require full compliance on any newly constructed taxilanes that accept FAA funding. While it may not be necessary to correct all of the TSA and TOFA issues, the feasibility of this action and the impact it would have on Airport circulation and capacity are discussed in **Section 5**.

Aircraft Hangars

Hangar requirements for a GA facility are a function of the number of based aircraft, the type of aircraft to be accommodated, owner preferences, and area climate. Furthermore, it is common when calculating the hangar size needs of a facility to use an average size requirement for the various types of aircraft, meaning that each type of aircraft will require a different amount of space (usually measured in square-feet) within a specific type of storage facility (e.g., T-hangar, single-aircraft box hangar, large multi-aircraft conventional hangar). **Table 3.18** illustrates the average aircraft space requirements based on aircraft type for the Airport.

Table 3.18 – Average Aircraft Space Requirements

Aircraft Storage Type	Space Required (SF)
Conventional/Box Hangar	
SE piston	1,200
ME piston	1,400
Turboprop/jet	1,800
Rotorcraft	800
T-hangar	
SE/ME (piston/turboprop)	1,400

Acronyms: Square feet (SF), single-engine (SE), multi-engine (ME)
Source: C&S Engineers, Inc., 2017

The average space requirements for the various aircraft in the Airport's based aircraft fleet mix was applied to the based aircraft forecasts to estimate hangar area requirements for each hangar type. **Table 3.19** includes the assumptions made regarding the type of storage needed for each type of based aircraft at the Airport. The existing based aircraft data provided by airport management, along with the current aircraft storage conditions as they exist on the airfield today, were used to develop these assumptions. Finally, using these averages and assumptions, combined with the forecasted fleet mix, **Table 3.20** depicts the calculated demand requirements for hangar space at the Airport for each of the planning periods.

Table 3.19 – Aircraft Storage Assumptions

Aircraft & Storage Type	% of Based Aircraft Fleet Using Storage[1]
SE Piston	
T-hangar	35%
Parking apron	45%
Conventional/box hangar	20%
ME Piston	
Conventional/box hangar	40%
T-hangar	35%
Parking apron	25%
Turboprop	
Conventional/box hangar	75%
Parking apron	25%
Jet	
Conventional hangar (large)	100%
Rotorcraft	
Conventional/box hangar	80%
Apron	20%

Acronyms: Single-engine (SE), multi-engine (ME)

Note: [1] Assumes the percentage of the based aircraft fleet using each type of storage remains constant over the planning period.

Source: City of San Diego Airports Division, 2017, C&S Engineers, Inc.

Table 3.20 – Hangar Demand Summary

	2017 (Existing)	2022	2027	2032	2037
Conventional/ Box Hangar[1] (SF)	**235,000[1,2]**	183,400	184,600	184,600	185,800
T-hangar/Single-aircraft box hangar (SF)	**334,000**	364,000	364,000	368,200	369,600
Total Hangar Area (SF)	**569,000**	547,400	548,600	552,800	555,400

Notes: [1] Includes only multi-aircraft box hangars. [2] Aircraft maintenance hangars and the SDPD hangar were excluded from the total measurement.

Source: City of San Diego Airports Division, 2017, C&S Engineers, Inc., Google Earth, 2017

The results of the hangar demand analysis illustrated in **Table 3.20** above indicate that the Airport has sufficient conventional box hangar storage space available for the 20-year planning period, but lacks adequate T-hangar storage space. This is consistent with input received from airport management, tenants, and users at the Airport. For example, based on the hangar demand analysis and the existing number of T-hangars present today, the Airport could utilize approximately 36,000 additional square-feet, or roughly 25-30 T-hangars, depending on the size of the structure.

Therefore, recommendations for the number and location of additional T-hangars will be explored during the Alternatives Development analysis and ultimately displayed on the Airport Layout Plan (ALP). It is important to note that hangars of all types are not normally eligible for FAA Airport Improvement Plan (AIP) funding and therefore are usually funded by the sponsor, private investor, or a combination thereof. Thus, it is also recommended that the City continue to monitor the actual demand for hangars at the Airport and make adjustments in the types and number of hangars as needed over the course of the planning horizon.

Aircraft Parking Apron

Multiple aircraft parking areas are also located at the Airport. In order to identify the required parking space needed for based aircraft not stored in a hangar, as well as transient aircraft requiring temporary parking, a demand analysis was conducted. Transient aircraft are those that are visiting an airport on a temporary basis and do not remain at an airport for an extended period. Areas designated for the parking of transient aircraft are usually identified as "itinerant aprons." There are approximately 260 designated paved parking spaces available for based and transient aircraft on a total of approximately 60,000 square yards of aircraft parking apron at the Airport, the majority of which is reserved for based aircraft. **Figure 3.9** depicts the designated itinerant and based aprons at MYF.

The paved parking area requirements calculated utilized an average of 200 square yards per based aircraft and 400 square yards per itinerant aircraft. **Table 3.19** in the preceding section illustrates the assumptions made for calculating the based aircraft that require apron parking or tie-down space. **Table 3.21** summarizes the based and transient aircraft apron needs for the 20-year planning period at the Airport.

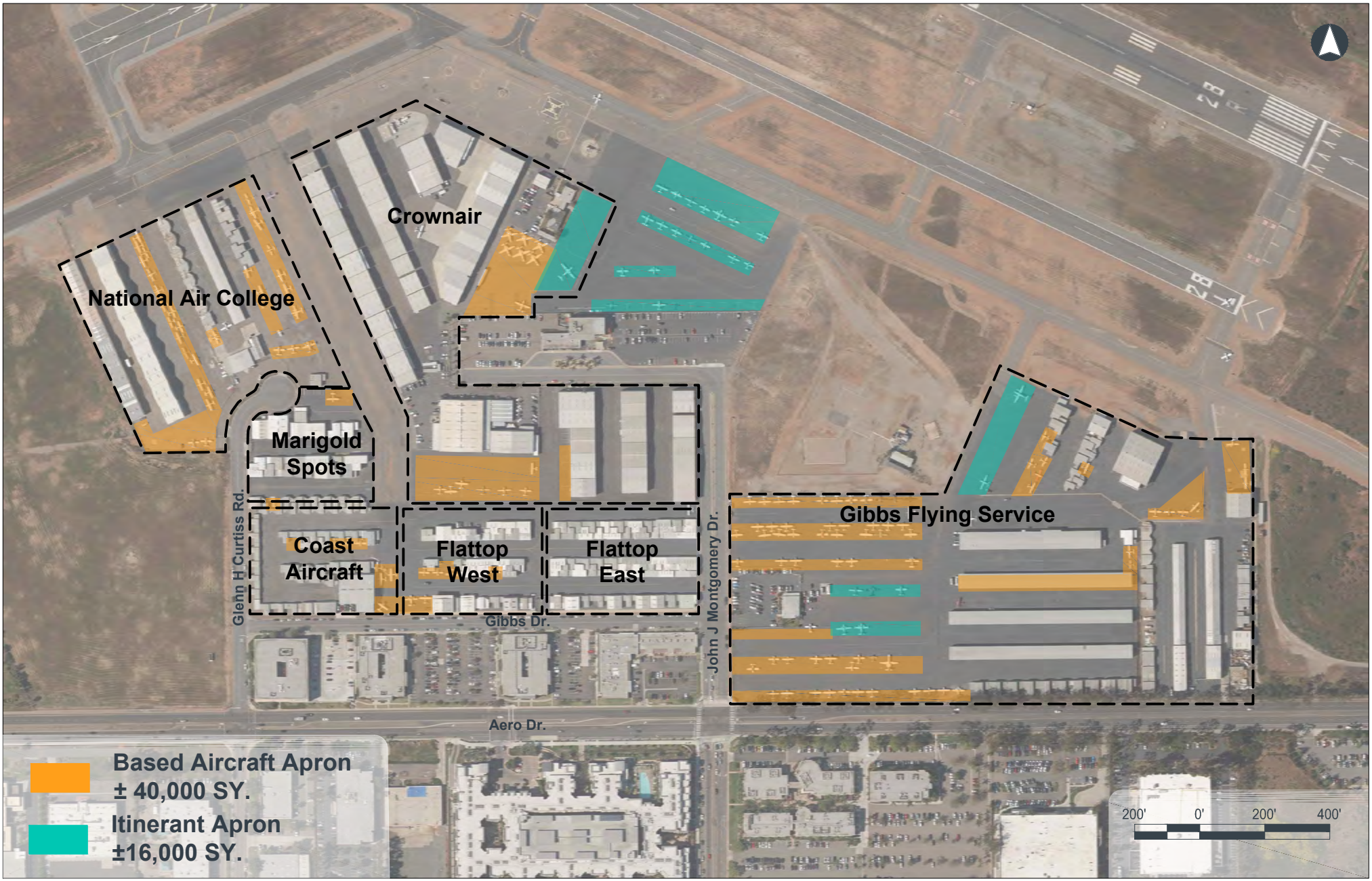
Table 3.21 – Apron Area Demand Summary

	Existing Area (SY)[1]	Estimate of Apron Area Needed (SY)			
		2022	2027	2032	2037
Itinerant Apron	20,000	38,000	38,800	40,000	41,200
Based Apron	40,000	40,200	40,400	40,600	40,600
Total Apron	**60,000**	**78,200**	**79,200**	**80,600**	**81,800**

Note: [1] Existing apron areas were measured using aerial imagery and are approximate; taxilanes were not included in the measurements of the parking apron.

Source: City of San Diego Airports Division, C&S Engineers, Inc., Google Earth, 2017

The results of the apron area demand analysis indicate that the Airport is in need of both itinerant and based aircraft apron area over the course of the 20-year planning period and is consistent with reports by Airport management, flight schools, fixed base operators (FBOs), and other tenants. The based aircraft apron is nearly at capacity, or depending on the location on the airfield, at capacity. Currently, 56 of the total based aircraft on the airfield are operated by the six flight schools located at the Airport. Furthermore, 45 out of the 56 flight school aircraft, or 80 percent, are parked on the based aircraft aprons. Should any of the flight schools expand in the future, space for additional aircraft parking may be inadequate. In addition, during peak activity periods for the FBOs, temporary parking space for some of the larger, transient turbine aircraft is inadequate. The majority of the transient apron parking is located adjacent to the terminal building and the Crownair FBO on the south side of the airfield. Overflow of based aircraft parking has begun to encroach upon the limited transient apron parking available for the Airport. This also makes it increasingly more difficult for transient visitors to temporarily park their aircraft in a convenient location, such as in front of the terminal building in the designated transient/visitor parking area.



SD Airports

Montgomery-Gibbs Executive Airport Master Plan

Figure 3.9

Apron Area Measurements

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The forecasted aviation activity is the basis for the additional itinerant and based aircraft parking apron space at the Airport. For example, the itinerant apron requirements were determined using the forecasted design hour operations and the projected level of itinerant aircraft utilization during the busiest hour of an average day in the peak month. Likewise, determining the based aircraft apron requirements involved applying the forecasted based aircraft and the likely percentages of those based aircraft utilizing apron parking versus hangar parking. Both the design hour operations and the based aircraft are forecasted to grow conservatively during the planning period, which is reflected in the total additional apron needed. Furthermore, both calculations use assumptions that may change depending on actual activity at the Airport. The Airport should plan to add approximately 22,000 – 25,000 square yards of aircraft parking apron area over the course of the 20-year planning period, but should also realize this amount will depend on actual aviation activity and demand at the Airport. Therefore, this number may need to be adjusted accordingly. The most beneficial and logical locations for additional aircraft parking apron at the Airport are identified in **Section 5**.

Fueling Facilities

As previously discussed in **Section 1**, between the two FBOs at the Airport, a total of 32,000 gallons of Jet A and 100LL (one hundred low lead) fuel are stored within four underground tanks. Furthermore, an additional 11,000 gallons of Jet A and 3,800 gallons of 100LL contained within nine fuel trucks are available for fueling aircraft. This totals 43,000 gallons of Jet A and 35,800 gallons of 100LL fuel available at the Airport at full capacity.

A review of the fuel sales data from 2011-2016 indicates that the FBOs sell on average approximately 20,000 gallons of Jet A and 13,000 gallons of 100LL on a weekly basis. Thus, the existing aircraft fueling facilities at the Airport appear to be adequate for existing demand. However, it is likely that the fueling capacity at the Airport may need to increase, especially for 100LL fuel, to accommodate future demand. 100LL is the only remaining lead-containing transportation fuel. It is relied on by owners and operators of more 167,000 piston-engine aircraft in the United States to power their aircraft. The FAA is currently working with aircraft and engine manufacturers, fuel producers, the EPA and industry associations to overcome technical and logistical challenges to developing and deploying a new unleaded fuel[2]. There is one existing approved unleaded alternative to 100LL named UL94, however this fuel is not universally compatible with the piston-engine fleet. UL94 also requires dedicated storage tanks and would require new infrastructure in order for it to be offered at the Airport[3]. Efforts to develop an alternative that meets the requirements of the entire piston-engine aircraft fleet are ongoing. The Airport has expressed interest in unleaded aviation fuel, but the decision to stock and sell the fuel ultimately lies with the fuel providers at MYF when it becomes readily available.

Airport management indicates that the underground fuel storage tanks and their various components are in fair condition. The entire system is inspected and serviced as required on a regular basis. Management also indicated that there has been interest in possibly constructing a central fuel farm that would be accessible to all fueling trucks on the airfield. Potential locations for an additional above ground fuel farm and its logistics are further explored in **Section 5** of this Master Plan.

Terminal/Airport Administration Building

The terminal building at the Airport is a multi-functional building. It has undergone several updates since its original construction in 1969; the most recent occurred in 2016. The building is approximately 10,000 square-feet in size.

2 "Aviation Gasoline," faa.gov (Federal Aviation Administration, August 21, 2020), https://www.faa.gov/about/initiatives/avgas/.

3 "Swift Fuels Unleaded Avgas," Swift Fuels Avgas, accessed June 3, 2021, https://www.swiftfuelsavgas.com/faq.

The methodology used to determine the terminal building facility requirements for general aviation airports is based on the number of airport users anticipated to use the facility during the design hour operations. The design hour is defined as the peak hour of an average day of the peak month. The design hour can be used to determine the number of passengers and pilots departing or arriving on an aircraft in an elapsed hour of a typical busy day (design day). In the case of MYF, given that the design hour operations measure the activities for the Airport as a whole, this methodology may not reflect the most accurate way to calculate the size requirements of the facility; the reasoning is the flight school and FBO customers do not routinely use the terminal building. Therefore, a modified design hour derived from the total itinerant operations during the peak month was calculated for the Airport over the course of the planning period.

In order to accommodate the peak-hour traffic and to determine the building size requirements, conventional planning practices use a factor of 2.5 people (passengers and pilots) per peak-hour (design hour) and an average area of 150 square-feet of space per person for airports similar in size and activity as MYF. For MYF, applying these standards to the modified itinerant operations design hour produced the terminal size requirements for each planning period. Additionally, combining the square-footage of the City's terminal building and the shared public space of the FBOs produced the total "terminal" space available at the Airport today. The logic being that the majority of GA itinerant users are likely to use the FBOs over the City terminal; thus, the FBO shared public space in fact adds to the overall "terminal" space at the Airport, even though the space is located in physically different locations. The existing terminal space combined with the existing FBOs' common shared space today totals approximately 16,600 square-feet. **Table 3.22** summarizes the GA terminal requirements for MYF using the methodologies described herein.

Table 3.22 – General Aviation Terminal Space Requirements

Year	Itinerant Design Hour Operations[1]	Peak-Hour Pilot & Passengers	Terminal Size Required (Approx. SF)
2017	55	138	16,600[2] 20,700[3]
2022	57	143	21,450
2027	58	145	21,750
2032	60	150	22,500
2037	61	153	22,950

Notes: [1] Assumes that the total itinerant operations remain 51 percent of the total operations throughout the planning period. [2] Existing total square-footage of MYF terminal building and the FBOs' shared common areas is 16,600 SF (10,000 SF + 6,600 SF). [3] The calculated terminal size required using the existing itinerant design hour and peak-hour pilot and passenger factor.

Source: City of San Diego Airports Division, C&S Engineers, Inc.

According to the calculated requirements above, the existing 10,000-square foot terminal building does not meet the space requirements either by itself or with the combined shared space from the two FBOs on the airfield through the planning period. In fact, the 2017 data indicates that the Airport presently is short on space by approximately 4,100 square-feet (20,700 recommended square-feet minus 16,600 actual square-feet). Although the terminal building appears to be in overall good condition, it is somewhat dated. Airport management reports that typical energy and water efficiency improvements are needed, such as mechanical, electrical, and plumbing upgrades. Thus, **Section 5** will consider various terminal concepts and will present additional recommendations such as size and potential locations for a new airport terminal building.

Support Facilities

ARFF & Other Emergency Services

Although MYF is not required to provide aircraft rescue and firefighting (ARFF) services as per 14 CFR Part 139 Airport Certification (airports that serve scheduled and unscheduled air carriers), as previously mentioned, the Airport does have an agreement with Fire Station 28 located adjacent to airport property to provide assistance for both fire and emergency medical services as needed. FAA AC 150/5210-6D, *Aircraft Fire and Rescue Facilities and Extinguisher Agents*, recommends general aviation airports have 190-gallons of aqueous film forming foam (AFFF) supplemented with 300-pounds of dry chemical, in addition to aviation rated fire extinguishers immediately available in the vicinity of the aircraft apron and fueling facilities. Thus, it is recommended that the City continue its agreement with the local Station 28 as long as they are able to provide the recommended minimum protection as outlined above.

City Maintenance and Equipment Building

The existing City maintenance garage is located adjacent to the Crownair line service building just south of Taxiway H. The building measures approximately 1,400-square feet and is in fair condition. Typical items stored here for airport operations and maintenance personnel include tools, janitorial supplies, airfield equipment such as the foreign object debris (FOD) Boss, signs, lighting, and other aviation and employee related equipment. Although the building adequately serves the storage needs of the airport today, the City has expressed concerns with its size as growth continues at the Airport. As part of Crownair's redevelopment plan, a dedicated 3,600-sqaure foot space has been allocated for the City's use as a new operations and maintenance garage. As such, this dedicated space will be carried forward into **Section 5**, and the proposed location, and possibly alternative locations, will be further reviewed in later sections of this report.

Airfield Electrical Vault

As noted in **Section 1**, the airfield electrical vault is located just north of the Administration building and is in good condition. The current size of the building and the equipment inside are adequate to meet the Airport's current demand. However, the vault is at capacity and would require replacement if any improvements are made to the lighting at the Airport.

Airport Traffic Control Tower

The FAA currently maintains and operates the ATCT located on the northeast corner of the airfield. Although the structure itself is outdated, it remains functional. The ATCT is 470 feet above mean sea level (MSL). No line-of-sight issues have been identified. The ATCT is anticipated to remain in its current location over the course of the planning period.

Perimeter/Security Fencing and Access Gates

The primary function of airport fencing is to restrict inadvertent and intentional unauthorized entry to the Airport by individuals or wildlife. As mentioned above, MYF is not a 14 CFR Part 139 certificated airport, and therefore does not require any security measures. However, at a minimum, most general aviation airports usually maintain some type of perimeter fencing, especially when located in busy urban areas. The Airport currently has fencing and access control measures in place that provide a layer of security and safety for its users and the public. Overall, the eight-foot high, galvanized chain-link perimeter fencing is in good condition; the majority of it replaced in 2001 funded through an FAA grant. However, a portion of the fencing near the Spiders-Sorbi hangars is only four feet high, and one recommendation is to replace this fencing with eight-foot high fencing in the short-term planning period. Furthermore, according to airport management, there is some erosion under the fencing on the north side of the airport, which may inadvertently allow wildlife to access the airfield. Aside from continued monitoring of the area, a Wildlife Hazard Assessment (WHA) is recommended

to be completed. Among other valuable findings, a WHA will be able to inform the Airport where vulnerabilities are present in the perimeter fencing that allows wildlife to breach the perimeter and suggest measures to correct or prevent future breaches. The Environmental Baseline element of this report provides a more in-depth description of the WHA and its benefits.

Utilities

The current capacity for all utilities discussed in **Section 1** is adequate for present day demands. However, future development may require additional electrical or water capacity to meet the power needs of the operation or to meet fire codes (usually for new hangar developments). As such, during the planning phase of all future proposed development, coordination with the local utility providers should occur to insure sufficient capacity exists. Furthermore, to determine the adequacy of the existing infrastructure at MYF, it is recommended that a general utility study be performed to gauge the Airport's current systems, which in turn should assist in estimating the future utility demands needed to support the proposed future development contained in this Master Plan update.

As part of the Airport Master Plan, a waste audit was conducted in order to understand current waste management practices and performance. Refer to **Appendix L**.

Vehicle Access and Parking

Vehicle Access

Vehicular traffic accounts for the majority of congestion during peak business hours on Aero Drive, Balboa Avenue, Clairemont Mesa Boulevard, and Convoy Street, the major roadways in the immediate area of the Airport. Although multiple street improvements have been proposed under the 2011 Kearny Mesa Community Plan, there is no immediate need to reduce congestion surrounding MYF. Additionally, in the early stages of the Airport Multimodal Accessibility Plan (AMAP), the surrounding roadways near MYF were considered for potential ground access improvements. However, due to constraints (runway expansion, environmental, etc.) further research into the potential for ground access improvements were deemed unnecessary to the study. Additional concerns regarding vehicle access around the Airport that may arise from community input will be further examined in **Section 5**.

Vehicle Parking

The Airport has numerous vehicle parking lots available, both to the public and for its based aircraft users and business tenants. Based aircraft owners normally park their vehicles in their hangar or tie-down space when using their aircraft, and designated employee and tenant parking is available near the FBOs and other major businesses on the airfield. From discussions with Airport management, the vehicle parking provided for based aircraft users and business tenants is adequate at this time. Parking needs for business tenants and based aircraft owners will be analyzed more as the various development alternatives are presented in **Section 5 – *Alternatives***. Thus, provided here are calculations only for the public vehicle parking needs over the course of the 20-year planning period.

Section 1 – *Inventory, Surveys, & Data Collection* indicates that a total of 413 public vehicle parking spaces are available at MYF contained within the east and west terminal building lots and along several of the main public access roadways near the terminal (218 of the spaces are located in the east and west parking lots next to the terminal building). Using the same logic described above for calculating the terminal building size requirements, calculating the required vehicle parking needs for MYF also uses the modified itinerant design hour. Again, using the design hour calculated for the Airport as a whole may not accurately reflect the public parking needs of the airport. Using a design hour calculated from only the itinerant operations takes into consideration those users who are not based at the airport and those more likely to need temporary parking while visiting the airport. This modified design hour and the standard 2.5 pilots and passengers determined the vehicle parking space requirements for the 20-year planning period. **Table 3.23** summarizes the results of these findings.

Table 3.23 – Public Vehicle Parking Requirements

Year	Itinerant Design Hour Operations[1]	Parking Spaces Required	Approx. Size (SY)[2]
2017	55	138	4,825
2022	57	143	4,992
2027	58	146	5,113
2032	60	150	5,237
2037	61	153	5,364

Notes: [1] Assumes that the total itinerant operations remain 51 percent of the total operations throughout the planning period. [2] A standard 35 square-yards per parking space was used to determine approximate total square yards.

Source: C&S Engineers, Inc.

Based on the existing public parking spaces currently available at MYF and the calculations above, no additional spaces should be needed to accommodate visiting and other transient users of the Airport. However, parking spaces will ultimately depend on actual demand. Therefore, the City should continue to monitor the public vehicle parking needs throughout the planning horizon and consider expansion as the need arises.

Land Use

Identifying the types and distribution of land uses and zoning designations on, adjacent to, and in the close proximity of an airport is an important task for municipal airport sponsors. Typical land use compatibility considerations include safety, height hazards, noise exposure, and alignment with established community planning - all of which the sponsor should consider relative to projects on airport property, both on- and off-airport.

In the State of California, these topics are addressed in the Airport Land Use Compatibility Plan (ALUCP), which ensures that incompatible development does not occur on land surrounding an airport (non-airport property). To meet these objectives, the ALUCP addresses potential airport compatibility impacts related to four specific airport-related factors. These include:

1. Noise – Exposure to aircraft noise
2. Safety – Land use that affects safety both for people on the ground and in aircraft
3. Airspace protection – Protection of airport airspace
4. Overflight – Annoyance and other general concerns related to aircraft overflights

The Airport's current ALCUP was last amended in December 2010. Any proposed development surrounding the airport (not on airport property) would need to conform to the guidelines as outlined by the 2010 ALUCP. It is imperative that the Airport continue to work in conjunction with other City departments and the surrounding communities on controlling the land uses and development formats surrounding the Airport via zoning and other measures, such as avigation easements and airport overlay zones, in order to meet the ALUCP requirements.

For example, The Kearny Mesa Community Plan designates the land use directly south of the airport property on the other side of Aero Drive as industrial and business parks and recommends that these areas maintain this designation. Recent development activity in the Kearny Mesa community has included mixed-use projects, which contribute to an increase in available housing and corresponding population, according to the forthcoming 2019 update to the Kearny Mesa Community Plan. The density of development surrounding MYF has increased over time, and it is important to continue joint efforts between the Airport and City officials to protect the Airport from incompatible land uses and obstructions.

From an on-airport perspective, the City has expressed interest in exploring aeronautical and non-aeronautical uses for some areas of the airport property. Non-aeronautical land uses at the Airport are concentrated on both sides of Aero Drive, a high-volume road that connects traffic to Kearny Mesa's extensive freeway network. The San Diego Police Department occupies a non-aeronautical property owned by the airport on the opposite side of Aero Drive to the southeast. According to the Kearny Mesa Community Plan, existing land uses surrounding the Airport consist primarily of industrial, office, and retail centers along the Aero Drive corridor.

The Four Points by Sheraton Hotel is a non-aeronautical use located on MYF property adjacent to the Airport, at the intersection of Aero Drive and Kearny Villa Road. In 2015, the hotel's operator filed for bankruptcy. Although the hotel is no longer in active bankruptcy as of 2017, the Airport is considering reacquiring portions of the existing leasehold, specifically parts of the golf course east of the hotel, to facilitate potential development on this site. This land is contiguous to a currently vacant [2.9 acres of non-aeronautical land use area] Airport-owned property at the forefront of Aero Drive and Glenn H Curtiss Rd. If reacquired, this land would enhance the site's redevelopment potential by providing additional land area. Redevelopment options being considered by the City include both aeronautical and non-aeronautical uses. **Figure 3.10** depicts non-aeronautical land uses on Airport property at the forefront of Aero Drive. In either case, the airport stands to benefit from redevelopment of the site. Aeronautical uses would potentially enhance revenues and/or improve the airport's services, and non-aeronautical commercial development would provide supplemental ground lease revenues.

The redevelopment site is located along the high-volume Aero Drive corridor, providing freeway access and visibility in an area that does not appear to offer many comparable development sites. Given these favorable site characteristics, further study is recommended to evaluate the site's market potential for non-aeronautical commercial use, and to identify appropriate uses given site and market conditions.

Environmental constraints may exist on the redevelopment site east of the hotel, potentially including hydrologic features that would require study under environmental review, prior to development. **Section 5** will explore the aeronautical and non-aeronautical potential uses of this property, in which input from the PAC and City will ultimately determine how the property is designated on the ALP for future use.



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Figure 3.10

Non-Aeronautical Land Uses

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3.6 Advisory Committee Input

As with the previous two **Sections**, the Montgomery-Gibbs Executive Airport Public Advisory Committee (PAC) had the opportunity to review this section and provide comments to the project team during the third scheduled committee meeting held on October 16, 2017. Committee members provided several comments regarding both the airside and landside facility requirements presented within **Section 3**. The more notable comments include the following:

Airside Facility Requirements Feedback

The main focus of the PAC's comments regarding the airside component of the Airport had to do with the capacity of the airfield. It was agreed that any improvements that can potentially increase the efficiency of the existing runway system configuration to avoid bottlenecks should be evaluated. The capacity of the airfield is a key focus of the airside alternatives, and will be thoroughly examined within **Section 5**.

Although not defined as an airside facility, the noise monitoring system's current condition was discussed, and a suggestion included making recommendations in the planning period to upgrade the system to ensure it accurately captures the aircraft noise generated at the Airport. Likewise, although the noise monitoring system may not be a part of any of the alternatives development directly, it will be included in the proposed airport capital improvement plan found later in this report.

Landside Facility Requirements Feedback

The main focus of the discussion on the landside component for the Airport revolved around hangars and the terminal facility. There was concern that some of the newer aircraft models have larger wingspans, and thus the existing T-hangars on-site may not accommodate them. A PAC member proposed the City look at adding more single-aircraft box hangars, and the majority of the committee concurred. Overall, PAC members agreed that the Airport is in need of a variety of additional hangar space over the course of the planning period in order to attract more pilots and aircraft to the Airport. Secondly, most PAC members agreed that the existing terminal facilities are in need of an upgrade. Possible amenities suggested for a future facility include larger restrooms with showers, a pilot's lounge with computer and internet access, conference rooms, and rental car options. The outcome of the facility requirements indicated that the Airport is in need of additional T-hangars and a larger terminal facility within the 20-year planning period. Thus, all landside alternatives proposed in **Section 5** will include recommended additions and improvements in these areas and ultimately will be incorporated into the preferred alternative for the Airport Master Plan.

Summary

This phase of the AMP captured the required facility requirements as a result of the Airport's existing conditions and its projected aviation demand over the course of the 20-year planning period. Input from the FAA, AMP Advisory Committee, and the public is a vital component in this process. Under **Section 5**, various airside, airfield, and landside improvements will be presented for evaluation. After further review and input from airport stakeholders and the surrounding community, a recommended preferred alternative for the Airport's airside and landside improvements will be proposed for further evaluation.



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Section 4

Environmental Overview

Prepared by:

ATKINS

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Acronyms

AC: Advisory Circular
AEDT: Aviation Environmental Design Tool
AIA: Airport Influence Area
ALP: Airport Layout Plan
ALUC: Airport Land Use Commission
ALUCP: Airport Land Use Compatibility Plans
APU: Auxiliary Power Units
BCC: Bird of Conservation Concern
BGEPA: Bald and Golden Eagle Protection Act
BLA: Boundary Line Adjustment
BLM: U.S. Department of the Interior Bureau of Land Management
CALFIRE: California Department of Forestry and Fire Protection
CDFW: California Department of Fish and Wildlife
CEQ: Council on Environmental Quality
CEQA: California Environmental Quality Act
CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act
CESA: California Endangered Species Act
CFR: Code of Federal Regulations
CFG: California Fish and Game
CNDDB: California Natural Diversity Database
CNEL: Community Noise Equivalent Level
CNPS: California Native Plant Society
CO: Carbon monoxide
CO_{2e}: Carbon dioxide equivalent
CPUC: California Public Utilities Commission
CPS: Cleanup Program Sites
CRPR: California Rare Plant Rank
CT: Census Tract
CWA: Clean Water Act
DNL: Day-Night Average Sound Level
DOT: U.S. Department of Transportation
DTSC: Department of Toxic Substances Control
EA: Environmental Assessment
EIS: Environmental Impact Statement
EO: Executive Order
EPA: U.S. Environmental Protection Agency
EPCRA: Emergency Planning and Community Right to Know Act
ESL: Environmentally Sensitive Lands
FAA: Federal Aviation Administration
FE: Federally Endangered
FEMA: Federal Emergency Management Agency
FESA: Federal Endangered Species Act
FONSI: Finding Of No Significant Impact
FPPA: Farmland Protection Policy Act
FT: Federally Threatened
FUDS: Formerly Used Defense Sites
GA: General Aviation
HSC: California Health and Safety Code

ICAO: International Civil Aviation Organization
ILRP: Irrigated Lands Regulatory Program
LTO: Landing and Take Off
LUST: Leaking Underground Storage Tanks
MBTA: Migratory Bird Treaty Act
MCAS: Marine Corps Air Station
MHPA: Multi-habitat Planning Area
MSCP: Multiple Species Conservation Program
MSL: Mean Sea Level
MYF: Montgomery-Gibbs Executive Airport
NAAQS: National Ambient Air Quality Standards
NAAS: Naval Auxiliary Air Station
NEPA: National Environmental Policy Act
NFIP: National Flood Insurance Program
NO_2: Nitrogen dioxide
NPDES: National Pollutant Discharge Elimination System
NPL: National Priority List
NPS: U.S. National Park Service
NRCS: Natural Resources Conservation Service
NRI: Nationwide Rivers Inventory
NWI: National Wetland Inventory
NWP: Nationwide Permits
O_3: Ozone
Pb: Lead
PM: Particulate Matter
RCRA: Resource Conservation and Recovery Act
RWQCB: Regional Water Quality Control Board
SANDAG: San Diego Association of Governments
SAM: Site Assessment and Mitigation
SAP: Subarea Plan
SC: Site Cleanups
SDIA: San Diego International Airport
SE: State Endangered
SEL: Sound Exposure Level
SIP: State Implementation Plan
SLIC: Spills, Leaks, Investigations, and Cleanups
SO_2: Sulfur dioxide
SSC: Species of Special Concern
SWIS: Solid Waste Information System
SWRCB: State Water Resources Control Board
USACE: U.S. Army Corps of Engineers
USC: United States Code
USDA: U.S. Department of Agriculture
USFS: U.S. Forest Service
USFWS: U.S. Fish and Wildlife Service
USGS: U.S. Geological Survey
UST: Underground Storage Tanks
VHFHSZ: Very High Fire Hazard Severity Zones
VPHCP: Vernal Pool Habitat Conservation Plan
WDR: Waste Discharge Requirement
WL: Watch List

Executive summary

The Environmental Overview chapter summarizes the findings of the environmental impact analysis that was performed in accordance with the Council on Environmental Quality (CEQ) Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act (NEPA); U.S. Department of Transportation (DOT) Order 5610.1C, *Procedures for Considering Environmental Impacts*; and FAA Order 1050.1F *Environmental Impacts: Policies and Procedures*. This analysis is required to determine the potential environmental impact of a proposed federal action.

This environmental overview identifies environmental resources, environmentally sensitive areas, and areas of potential impact that would potentially need further assessment. The report is comprised of publicly available data from federal, local and other agencies and field survey information, where possible. However, this overview does not replace environmental documents such as an environmental assessment (EA) or an environmental impact statement (EIS) that may be required for the proposed actions resulting from this study. To obtain environmental clearance for proposed projects at the Airport, a full environmental evaluation document prepared in accordance with United States Department of Transportation (USDOT) policy, FAA Order 1050.1F, FAA Order 5050.4B, and CEQ Regulations may be required.

The environmental and community resource topics summarized in this chapter have been divided into three groups, (1) Key resources with potential for significant impact; (2) Resources with no significant impact; and (3) Resources with no/negligible impact or resources not present. At Montgomery-Gibbs Executive Airport, the following environmental impact categories have been deemed to have a potentially significant effect:

- Air Quality
- Biological Resources
- Department of Transportation, Section 4f
- Hazardous Materials, Solid Waste, and Pollution Prevention
- Historical, Architectural, Archeological, and Cultural Resources
- Land Use
- Noise and Noise Compatible Land Use

The following categories were deemed to have no potentially significant effect:

- Climate
- Visual Effects
- Water Resources

As there are several topics which could have a potentially significant effect, it is recommended that an Environmental Assessment is undertaken, pursuant to FAA NEPA procedures.

4.1 Environmental Overview

San Diego County Regional Airport Authority

The City of San Diego works with the San Diego County Regional Airport Authority and San Diego Association of Governments (SANDAG) in planning, providing, and expanding multi-modal transportation facilities between San Diego International Airport (SAN) and the region's major activity centers.

The City coordinates with the Airport Land Use Commission (ALUC) and airport operators on preparing and amending community plans, zoning, development regulations, and the review of certain development proposals within airport influence areas to ensure protection of residents, workers, visitors, and airport operations.

The San Diego County Regional Airport Authority is the designated ALUC for airports within San Diego County; California State law requires ALUCs to coordinate planning for the areas surrounding public use airports. The purpose of the ALUC is to ensure orderly expansion of airports without causing a detrimental effect on public health, safety and welfare. This is achieved through review of proposed development surrounding airports and through policy and guidance provided in an Airport Land Use Compatibility Plan (ALUCP), adopted by the Airport Authority.

The Airport Authority adopted an ALUCP for MYF in January 2010 and updated it in December 2010. In essence, the ALUCP serves as a tool for the ALUC to use in fulfilling its duty to review land use plans and development proposals within the Airport Influence Area (AIA) at the airport.

4.2 Environmental Impact Analysis

Council on Environmental Quality Regulations

FAA Order 5050.4B NEPA Implementing Instructions for Airport Actions supplements Order 1050.1F by providing NEPA instructions specifically for proposed federal actions to support airport development projects.

As specified above, federal agency NEPA procedures must meet the standards in the CEQ Regulations while also reflecting each agency's unique mandate and mission. As a result, NEPA procedures vary from agency to agency. Under FAA NEPA procedures, if an airport sponsor or the FAA anticipates that an action may cause significant impacts, they should identify whether an Environmental Assessment (EA) or Environmental Impact Statement (EIS) may be required or whether Categorical Exclusions may apply meaning that an EA or EIS are not requisite.

FAA Order 1050.1F, and thus NEPA procedures, are applicable to the following actions; grants, loans, contracts, leases, construction and installation actions, procedural actions, research activities, rulemaking and regulatory actions, certifications, licensing, permits, plans submitted to the FAA by state or local agencies for approval, and legislation proposed by the FAA.

As per FAA Order 1050.1F requirements, an initial environmental review should be undertaken to determine if the proposed action is:

- Within the scope of a categorical exclusion;
- Addressed in an existing NEPA document, such as a regional assessment or a NEPA document prepared by another federal agency;
- Likely to significantly affect the quality of the environment with respect to noise, land, air, water, wildlife, energy supply and natural resources; or cultural, historic, or archeological resources;
- To be located in wetlands; floodplains; coastal zones; prime or important farmlands; habitat of federally listed endangered, threatened, or other protected species; wild and scenic river areas; areas protected under Section 4(f), 49 United States Code (U.S.C). § 303, or Section 6(f) of the Land and Water Conservation Fund Act (16 U.S.C. §§ 460l-8(f)(3)); or in or adjacent to minority or low-income populations (Executive Order 12898 and DOT Order 5610.2(a)); or
- Likely to be highly controversial on environmental grounds.

NEPA environmental assessment procedures

There are three levels appropriate to NEPA review; Categorical Exclusion, EA, and EIS. These are briefly summarized below:

Categorical Exclusion

Categorical exclusions are categories of actions the FAA has determined, based on previous experience, do not have significant individual or cumulative impact on the quality of the human environment except in extraordinary circumstances[1]. If the proposed action falls within the scope of a categorical exclusion, and there are no extraordinary circumstances an EA or EIS is not required. To assist with agency planning and decision-making, however, the FAA may at its discretion decide to

1 Extraordinary circumstances are factors or circumstances in which a normally categorically excluded action may have a significant environmental impact that then requires further analysis in an EA or an EIS.

prepare an EA even if a proposed action fits within a categorical exclusion and no extraordinary circumstances exist. It should be noted that a categorical exclusion is not an exemption or waiver of NEPA review; it is a level of NEPA review in its own right.

Environmental Assessment – An EA is undertaken to determine whether a proposed action has the potential to significantly affect the environment. The EA briefly provides evidence and analysis for determining whether to prepare an EIS or a Finding of No Significant Impact (FONSI). An EA can facilitate the preparation of an EIS. An EA is prepared in the following circumstances:

- When the proposed action does not normally require an EIS;
- When the proposed action does not fall within the scope of a categorical exclusion; or
- When the proposed action falls within the scope of a categorical exclusion but there are one or more extraordinary circumstances.

Environmental Impact Statement - an EIS is required for actions significantly affecting the quality of the environment. It is a detailed written statement required under Section 102(2)(C) of NEPA when one or more environmental impacts would be significant and mitigation measures cannot reduce the impact(s) below significant levels. Direct, indirect, and cumulative impacts must be considered when determining significance.

Environmental Impact Categories

There are 14 environmental impact categories that may be relevant to FAA actions. These are:

- Air quality
- Biological resources (including fish, wildlife, and plants)
- Climate
- Coastal resources
- Department of Transportation Act, Section 4(f)
- Farmlands
- Hazardous materials, solid waste, and pollution prevention
- Historical, architectural, archeological, and cultural resources
- Land use
- Natural resources and energy supply
- Noise and compatible land use
- Socioeconomics, environmental justice, and children's environmental health and safety risks
- Visual effects (including light emissions)
- Water resources (including wetlands, floodplains, surface waters, groundwater, and wild and scenic rivers)

An EIS is required when any of the impacts of the proposed action, after incorporating any mitigation commitments, remain significant. **Table 4.1** displays the FAA's significance thresholds and factors to consider for each relevant environmental impact category, as specified on Exhibit 4-1 of Order 1050.1F.

Table 4.1 – Significance Determination for FAA Actions

Environmental Impact Category	Significance Threshold	Factors to Consider
Air Quality	The action would cause pollutant concentrations to exceed one or more of the National Ambient Air Quality Standards (NAAQS), as established by the Environmental Protection Agency under the Clean Air Act, for any of the time periods analyzed, or to increase the frequency or severity of any such existing violations.	N/A
Biological Resources (including fish, wildlife, and plants)	The U.S. Fish and Wildlife Service or the National Marine Fisheries Service determines that the action would be likely to jeopardize the continued existence of a federally listed threatened or endangered species, or would result in the destruction or adverse modification of federally designated critical habitat. The FAA has not established a significance threshold for non-listed species.	The action would have the potential for: - A long-term or permanent loss of unlisted plant or wildlife species, i.e., extirpation of the species from a large project area (e.g., a new commercial service airport); - Adverse impacts to special status species (e.g., state species of concern, species proposed for listing, migratory birds, bald and golden eagles) or their habitats; - Substantial loss, reduction, degradation, disturbance, or fragmentation of native species' habitats or their populations; or - Adverse impacts on a species' reproductive success rates, natural mortality rates, non-natural mortality (e.g., road kills and hunting), or ability to sustain the minimum population levels required for population maintenance.
Climate	The FAA has not established a significance threshold for Climate.	N/A
Coastal Resources	The FAA has not established a significance threshold for Coastal Resources.	The action would have the potential to: - Be inconsistent with the relevant state coastal zone management plan(s); - Impact a coastal barrier resources system unit (and the degree to which the resource would be impacted); - Pose an impact to coral reef ecosystems (and the degree to which the ecosystem would be affected); - Cause an unacceptable risk to human safety or property; or

		- Cause adverse impacts to the coastal environment that cannot be satisfactorily mitigated.
Department of Transportation Act, Section 4(f)	The action involves more than a minimal physical use of a Section 4(f) resource or constitutes a "constructive use" based on an FAA determination that the aviation project would substantially impair the Section 4(f) resource. Resources that are protected by Section 4(f) are publicly owned land from a public park, recreation area, or wildlife and waterfowl refuge of national, state, or local significance; and publicly or privately owned land from an historic site of national, state, or local significance. Substantial impairment occurs when the activities, features, or attributes of the resource that contribute to its significance or enjoyment are substantially diminished.	There are historic Section 4(f) resources, or unevaluated resources. They can likely be avoided, but demolition of them would create a use. There are public recreation areas surrounding each airport, but it is unlikely there will be any substantial impairment of their protected features.
Farmlands	The total combined score on Form AD-1006, "Farmland Conversion Impact Rating," ranges between 200 and 260 points.	The action would have the potential to convert important farmlands to nonagricultural uses. Important farmlands include pastureland, cropland, and forest considered to be prime, unique, or statewide or locally important land.
Hazardous Materials, Solid Waste, and Pollution Prevention	The FAA has not established a significance threshold for Hazardous Materials, Solid Waste, and Pollution Prevention.	The action would have the potential to: - Violate applicable federal, state, tribal, or local laws or regulations regarding hazardous materials and/or solid waste management; - Involve a contaminated site (including but not limited to a site listed on the National Priorities List). Contaminated sites may encompass relatively large areas. However, not all of the grounds within the boundaries of a contaminated site are contaminated, which leaves space for siting a facility on non-contaminated land within the boundaries of a contaminated site. An EIS is not necessarily required. Paragraph 6-2.3.a of Order 1050.1F allows for mitigating impacts below significant levels (e.g., modifying an action to site it on non-contaminated grounds within a contaminated site). Therefore, if appropriately mitigated, actions within the boundaries of a contaminated site would not have significant impacts; - Produce an appreciably different quantity or type of hazardous waste;

		- Generate an appreciably different quantity or type of solid waste or use a different method of collection or disposal and/or would exceed local capacity; or - Adversely affect human health and the environment.
Historical, Architectural, Archeological and Cultural Resources	The FAA has not established a significance threshold for Historical, Architectural, Archeological, and Cultural Resources.	The action would result in a finding of Adverse Effect through the Section 106 process. However, an adverse effect finding does not automatically trigger preparation of an EIS (i.e., a significant impact).
Land Use	The FAA has not established a significance threshold for Land Use.	There are no specific independent factors to consider for Land Use. The determination that significant impacts exist in the Land Use impact category is normally dependent on the significance of other impacts.
Natural Resources and Energy Supply	The FAA has not established a significance threshold for Natural Resources and Energy Supply.	The action would have the potential to cause demand to exceed available or future supplies of these resources.
Noise and Noise Compatible Land Use	The action would increase noise by Day-Night Average Sound Level (DNL) 1.5 decibel (dB) or more for a noise sensitive area that is exposed to noise at or above the DNL 65 dB noise exposure level, or that will be exposed at or above the DNL 65 dB level due to a DNL 1.5 dB or greater increase, when compared to the no-action alternative for the same timeframe. For example, an increase from DNL 65.5 dB to 67 dB is considered a significant impact, as is an increase from DNL 63.5 dB to 65 dB. In addition to the DNL metric, the community noise equivalent sound level (CNEL) is the average sound level in A-weighted decibels (frequency-weighted sound levels that correlate with human hearing) for an average day. CNEL is the current noise metric used for transportation noise sources in the State of California and is recognized by the FAA.	Special consideration needs to be given to the evaluation of the significance of noise impacts on noise sensitive areas within Section 4(f) properties (including, but not limited to, noise-sensitive areas within national parks; national wildlife and waterfowl refuges; and historic sites, including traditional cultural properties) where the land use compatibility guidelines in 14 CFR part 150 are not relevant to the value, significance, and enjoyment of the area in question. For example, the DNL 65 dB threshold does not adequately address the impacts of noise on visitors to areas within a national park or national wildlife and waterfowl refuge where other noise is very low and a quiet setting is a generally recognized purpose and attribute.
Socioeconomics, Environmental Justice, and Children's Health and Safety Risks		
Socioeconomics	The FAA has not established a significance threshold for Socioeconomics.	The action would have the potential to: - Induce substantial economic growth in an area, either directly or indirectly (e.g., through establishing projects in an undeveloped area); - Disrupt or divide the physical arrangement of an established community;

		- Cause extensive relocation when sufficient replacement housing is unavailable; - Cause extensive relocation of community businesses that would cause severe economic hardship for affected communities; - Disrupt local traffic patterns and substantially reduce the levels of service of roads serving an airport and its surrounding communities; or - Produce a substantial change in the community tax base.
Environmental Justice	The FAA has not established a significance threshold for Environmental Justice.	The action would have the potential to lead to a disproportionately high and adverse impact to an environmental justice population, i.e., a low-income or minority population, due to: - Significant impacts in other environmental impact categories; or - Impacts on the physical or natural environment that affect an environmental justice population in a way that the FAA determines are unique to the environmental justice population and significant to that population.
Children's Environmental Health and Safety Risks	The FAA has not established a significance threshold for Children's Environmental Health and Safety Risks.	The action would have the potential to lead to a disproportionate health or safety risk to children.
Visual Effects		
Light Emissions	The FAA has not established a significance threshold for Light Emissions.	The degree to which the action would have the potential to: - Create annoyance or interfere with normal activities from light emissions; and - Affect the visual character of the area due to the light emissions, including the importance, uniqueness, and aesthetic value of the affected visual resources.
Visual Resources/ Visual Character	The FAA has not established a significance threshold for Visual Resources / Visual Character.	The extent the action would have the potential to: - Affect the nature of the visual character of the area, including the importance, uniqueness, and aesthetic value of the affected

	visual resources; - Contrast with the visual resources and/or visual character in the study area; and - Block or obstruct the views of visual resources, including whether these resources would still be viewable from other locations.	
Water Resources (including Wetlands, Floodplains, Surface Waters, Groundwater, and Wild and Scenic Rivers)		
Wetlands	The action would: 1. Adversely affect a wetland's function to protect the quality or quantity of municipal water supplies, including surface waters and sole source and other aquifers; 2. Substantially alter the hydrology needed to sustain the affected wetland system's values and functions or those of a wetland to which it is connected; 3. Substantially reduce the affected wetland's ability to retain floodwaters or storm runoff, thereby threatening public health, safety or welfare (the term welfare includes cultural, recreational, and scientific resources or property important to the public); 4. Adversely affect the maintenance of natural systems supporting wildlife and fish habitat or economically important timber, food, or fiber resources of the affected or surrounding wetlands; 5. Promote development of secondary activities or services that would cause the circumstances listed above to occur; or 6. Be inconsistent with applicable state wetland strategies.	N/A
Floodplains	The action would cause notable adverse impacts on natural and beneficial floodplain values. Natural and beneficial floodplain values are defined in Paragraph 4.k of DOT Order 5650.2, Floodplain Management and Protection.	N/A

Surface Waters	The action would: 1. Exceed water quality standards established by federal, state, local, and tribal regulatory agencies; or 2. Contaminate public drinking water supply such that public health may be adversely affected.	The action would have the potential to: - Adversely affect natural and beneficial water resource values to a degree that substantially diminishes or destroys such values; - Adversely affect surface waters such that the beneficial uses and values of such waters are appreciably diminished or can no longer be maintained and such impairment cannot be avoided or satisfactorily mitigated; or - Present difficulties based on water quality impacts when obtaining a permit or authorization.
Groundwater	The action would: 1. Exceed groundwater quality standards established by federal, state, local, and tribal regulatory agencies; or 2. Contaminate an aquifer used for public water supply such that public health may be adversely affected.	The action would have the potential to: - Adversely affect natural and beneficial groundwater values to a degree that substantially diminishes or destroys such values; - Adversely affect groundwater quantities such that the beneficial uses and values of such groundwater are appreciably diminished or can no longer be maintained and such impairment cannot be avoided or satisfactorily mitigated; or - Present difficulties based on water quality impacts when obtaining a permit or authorization.
Wild and Scenic Rivers	The FAA has not established a significance threshold for Wild and Scenic Rivers.	The action would have an adverse impact on the values for which a river was designated (or considered for designation) through: - Destroying or altering a river's free-flowing nature; - A direct and adverse effect on the values for which a river was designated (or under study for designation); - Introducing a visual, audible, or other type of intrusion that is out of character with the river or would alter outstanding features of the river's setting; - Causing the river's water quality to deteriorate; - Allowing the transfer or sale of property interests without restrictions needed to protect the river or the river corridor (which cannot exceed an average of 320 acres per mile which, if

applied uniformly along the entire designated segment, is one-quarter of a mile on each side of the river); or

- Any of the above impacts preventing a river on the Nationwide Rivers Inventory (NRI) or a Section 5(d) river that is not included in the NRI from being included in the Wild and Scenic River System or causing a downgrade in its classification (e.g., from wild to recreational).

Sources: FAA. 2014. National Environmental Policy Act (NEPA) *Implementing Instructions for Airport Actions*, FAA. 2015b. *1050.1F Desk Reference*, Kimley-Horn & Associates. 2014. Montgomery Field Airport San Diego, California - Airport Layout Plan.

4.3 Environmental Impacts

Study area

To consider the potential for direct, indirect or secondary effects to a community or environmental resource as a result of master plan development at the Airport, the study area is dependent on the area of most likely impact and varies from topic to topic. For example, socio-economic impacts are assessed at a Census Tract level, whereas other topics such as Farmlands are assessed at a more local scale. While each topic study area differs, all topics consider the likely impact on receptors within the airport sites and most include an assessment of impacts at least ½ mile from the airport perimeter fence line.

Methodology

The environmental and community resources topics summarized in this report have been divided in three categories, (1) Key resources with potential for significant impact; (2) Resources with no significant impact; and (3) Resources with no/negligible impact or resources not present. **Table 4.2** summarizes whether any of the topics are likely to need further analysis due to potential impacts associated with master plan development at the airports. These are marked with a '✓'. Those resource areas that are anticipated to experience either no or negligible environmental impact under implementation of the Proposed Action or its alternatives are marked with an '×'.

The following environmental impact categories were determined to have a potentially significant impact:

- Air Quality
- Biological resources
- Hazardous materials
- Land use
- Noise and Noise-Compatible Land Use

The following environmental impact categories were determined to have no significant impacts:

- Climate
- Department of Transportation Act, Section 4(f)
- Historical, Architectural, Archeological and Cultural Resources
- Visual Effects
- Water Resources – wetlands and surface (NB: Floodplains, Groundwater, Wild and Scenic Rivers are not present)

The resources determined either to have no/negligible impact or that are not present in the study area are thus not included within the main body of this report but are included in **Appendix I – Resources with Negligible Impact or Not Present**. The following resources were determined either to have no/negligible impact or were not present in the study area:

- Natural Resources and Energy Supply
- Coastal Resources
- Farmlands
- Socioeconomics, environmental justice, and children's environmental health and safety risks

The sections following **Table 4.2** set out the regulatory framework and existing conditions for each of the impact categories, unless they have no/negligible impact or that are not present. The primary statutes, regulations, and Executive Orders set forth in the Regulatory Setting section of the following analysis are as specified by the FAA's Order 1050.1F Desk Reference.

Table 4.2 – Summary of Further Analysis

Topic	Summary of Potential Impact			
	No impact	Not significant	Potential significant	
Air Quality			✓	Further GHG analysis required
Biological Resources (including fish, wildlife, and plants)			✓	Sensitive species present and need for further survey work
Climate		✓		Further GHG analysis required as per Air Quality section
Coastal Resources	✗			No coastal resources present
Department of Transportation Act, Section 4(f)		✓		Consideration of historical properties as per Cultural resources section
Farmlands	✗			No farmlands present
Hazardous Materials, solid waste, and pollution prevention			✓	Hazardous Materials present within vicinity of MYF
Historical, architectural, archeological, and cultural resources		✓		Further consideration of historical and cultural resources needed
Land Use			✓	Compatibility with the ALUCP for the airports and local community plans
Natural resources and energy supply	✗			Consideration of topic at a local level is needed, not master plan level
Noise and Noise compatible land use			✓	Potential need for further noise study
Socioeconomics, environmental justice, and children's environmental health and safety risks	✗			MYF not considered an environmental justice community
Visual effects (including light emissions)		✓		Aesthetics walk over of site is required
Water resources (including wetlands, floodplains, surface waters, groundwater, and wild and scenic rivers)		✓		No floodplains, groundwater sources or wild and scenic rivers present so no analysis needed. Further consideration of surface waters and wetland needed.

4.4 Key Resources with Potentially Significant Impact

Air Quality

The sources assessed in the emission inventory were specific to the Airport and include aircraft engines and auxiliary power units (APU), where applicable depending on aircraft type[2]. Analysis was conducted following the FAA's *Aviation Emissions and Air Quality Handbook, Version 3 Update 1* and *Aviation Environmental Design Tool* (AEDT). AEDT is the FAA-required computer model for assessing air emissions associated with airports. The fleet mix, landing and takeoff (LTO) and touch and go operations were consistent with the noise analysis.

Regulatory Setting

Clean Air Act

Established in 1970 and last amended in 1990, the Clean Air Act (CAA) regulates air pollutant emissions from stationary and mobile sources and was the mechanism for the United States Environmental Protection Agency (EPA) to develop National Ambient Air Quality Standards (NAAQS) for six common air pollutants. The criteria air pollutants are carbon monoxide (CO), nitrogen dioxide (NO_2), ozone (O_3), particulate matter[3] (PM), sulfur dioxide (SO_2), and lead (Pb), and were determined due to their likelihood of harming human health and the environment and causing property damage.

Air Resources Board and CAAQS

Prior to the CAA, in 1959, the California State Department of Public Health received direction from their state legislature to develop California Ambient Air Quality Standards (CAAQS), established in 1962. In 1967, the legislature created the Air Resources Board (ARB) in 1969, the CAAQS became under the jurisdiction of the ARB, prior to any federal law on air quality. CAAQS criteria pollutants include all NAAQS criteria pollutants, plus an additional four, two of which are covered under particulate matter, one odor-based, and the final a historical CAAQS, in place should sources of it arise again.

Existing Conditions

The existing conditions include emission estimates for coinciding NAAQS and CAAQS criteria air pollutants which are carbon monoxide (CO), nitrogen dioxide (NO_2), particulate matter (PM), sulfur dioxide (SO_2) and lead (Pb). Ozone is an indirect or secondary pollutant that occurs due to chemical reactions primarily between NO_x and volatile organic compounds (VOCs). As a result, VOCs and NO_x, the primary precursors to ozone formation, provide surrogate information for assessing ozone levels. In addition, while not required under NEPA for evaluating air quality impacts, the emission inventory includes carbon dioxide (CO_2) emissions for consideration under FAA 1050.1F Climate Impacts[4] for addressing environmental impacts under NEPA.

In summary, the pollutant types evaluated in this inventory are consistent with the criteria pollutants evaluated when addressing air quality impacts under NEPA and consideration under FAA Climate guidance.

NAAQS are applicable throughout the United States and associated territories. For regions that have

2 There are no APUs currently present at MYF, so emissions data for APUs are not included in this document; should MYF acquire APUs, they would be included in an air quality and emissions analysis.

3 EPA regulates particulate matter (PM) in two categories, particles with aerodynamic diameters of 10 micrometers or less (PM10) and particles with aerodynamic diameters of 2.5 micrometers or less (PM2.5).

4 https://www.faa.gov/about/office_org/headquarters_offices/apl/environ_policy_guidance/policy/faa_nepa_order/desk_ref/media/3-climate.pdf

poor air quality, i.e. ambient concentrations of criteria pollutants above the NAAQS, the EPA has designated these areas as "nonattainment areas." Each nonattainment area is required to have an applicable State Implementation Plan (SIP) that prescribes mitigation measures and timelines necessary to bring ambient concentrations of criteria pollutants below the NAAQS.

The USEPA *Green Book* shows that San Diego County is designated as a moderate non-attainment area for the 2008 8-hour ozone standard and maintenance for CO[5]. The county is designated as attainment area for all other NAAQS.

Modeling Methodology

AEDT requires additional input data for air quality analysis including aircraft type operating at the airports. Engine type, taxi times, and APU usage is needed to determine air quality pollutant emissions, including greenhouse gas emissions and fuel burn. The analysis of aircraft taxi activity to and from the ramps included both aircraft types selected from the 2017 baseline fleet mix at the Airport and default taxi times from the AEDT as inputs. Similarly, it was assumed default AEDT APU times for each aircraft type. Annual aircraft emissions are a function of the number of aircraft operations expressed as landing and takeoff (LTO) cycles, the aircraft fleet mix (types of aircraft used), and the length of time aircraft spend in each of the modes of operation defined in AEDT. For this analysis, estimates for emissions came from the following aircraft modes[6]:

- Startup;
- Taxiing;
- Takeoff ground roll;
- Climb to mixing height and Descend from mixing height; and
- Landing ground roll

Pollutant emissions for aircraft operations using the above assumptions were estimated using AEDT for the LTO modes and touch and go (e.g. circuit model) operations below the mixing height including idle, taxing, climb, and descent. Per standard, it was assumed a default mixing height of 3,000 feet above ground level. Lead emissions are associated with leaded aviation fuel used in GA piston engine aircraft. AEDT does not estimate lead emissions directly. Therefore, these emissions were calculated based on fuel consumption and lead fuel content consistent with FAA/EPA methodology described in the *Aviation Emissions and Air Quality Handbook*. For a complete description of the air quality modeling assumptions see **Appendix O – 2017 Baseline Noise and Air Quality Modeling Assumptions.**

Emission Results

Table 4.3 presents primary baseline pollutant emissions in short tons per year (TPY) for all 2017 MYF aircraft operations. APU emissions would normally be separated from aircraft emissions and both combined would be reported as a total; however, there are no APU emissions at MYF and it has therefore been excluded from the table and calculations. The first seven are the overlapping NAAQS/CAAQS criteria pollutant according to the EPA and California ARB, as discussed above. short tons of CO_2 emitted have been reported for the baseline in order to continually track this number, though it is not a criteria pollutant, it is standard to report this number when assessing air quality emissions.

5 https://www3.epa.gov/airquality/greenbook/anayo_ca.html
6 In the AEDT output, these modes are all represented in the "ClimbBelowMixingHeight" and "DescendBelowMixingHeight" source grouping

Table 4.3 – Baseline 2017 Aircraft Emissions (Short Tons Per Year) at MYF

Source	CO	NO_x	PM10	PM2.5	SO_2	VOC	Lead (Pb)	CO_2
Aircraft - Total	1,462.921	3.757	1.036	1.036	1.879	36.644	1.070	5,062.075

Note: All emissions were modeled using AEDT as the model and FAA Aviation Emissions and Air Quality Handbook, Version 3 Update 1 (2015) aside from Lead (Pb) which utilized guidance given in the Handbook; specifically Equation A1-3 – Lead Emission Calculation.

Summary and Recommendations

Further analysis of air quality and GHG emissions may be needed to qualitatively and quantitatively identify whether there would be an impact from increased airport traffic and growth associated with airport expansion under the proposed master plan parameters.

Biological resources (including fish, wildlife, and plants)

This section describes the existing biological conditions at the Airport, including vegetation communities, jurisdictional waters and wetlands, sensitive natural communities, special status species, critical habitat, and regional conservation planning context. A summary of applicable regulations also is provided, as well as a ranking of biological constraints.

Regulatory Setting

Biological resources in the project site are subject to regulatory review by federal, state, and local agencies. Under CEQA, impacts associated with a proposed project or program are assessed with regard to significance criteria determined by the CEQA Lead Agency (in this case, the City) pursuant to CEQA Guidelines. Proposed actions at the airport would also be subject to FAA review under NEPA pursuant to the guidance provided in FAA *Order 1050.1F*, *Environmental Impacts: Policies and Procedures* and FAA *Order 5050.4B*, *NEPA Implementing Instructions for Airport Actions*. Biological resources-related laws and regulations that apply include federal Endangered Species Act (FESA), Clean Water Act (CWA), Migratory Bird Treaty Act (MBTA), CEQA, California Endangered Species Act (CESA), Porter-Cologne Water Quality Control Act, California Fish and Game (CFG) Code, Multiple Species Conservation Program (MSCP) Subarea Plan (SAP), and the City's Environmentally Sensitive Lands (ESL) regulations and Biology Guidelines (City 2012).

With respect to the proposed project, the U.S. Fish and Wildlife Service (USFWS) will be responsible for reviewing issues related to federally listed species not covered by the MSCP, including San Diego fairy shrimp, Riverside fairy shrimp (if present), San Diego mesa mint, spreading navarretia (if present) and San Diego button-celery (if present), and MSCP covered species that may require consultation due to a federal action on the property (coastal California gnatcatcher), pursuant to the FESA, and migratory birds pursuant to the MBTA. The U.S. Army Corps of Engineers (USACE) will be responsible for reviewing issues related to waters of the U.S. The Regional Water Quality Control Board (RWQCB) will be responsible for reviewing issues related to waters of the State pursuant to the CWA and State Porter-Cologne Water Quality Control Act. The California Department of Fish and Wildlife (CDFW) will be responsible for reviewing issues related to vegetated and unvegetated streambeds pursuant to the CFG Code, rare plants regulated by the Native Plant Protection Act, and nesting birds and raptors pursuant to CFG Code.

The City is the lead agency for the CEQA environmental review process in accordance with state law and local ordinances. During CEQA review, the City will be responsible for reviewing project issues per the CEQA Significance Thresholds for Biological Resources, and the City's ESL Ordinance and Biology Guidelines. The City will also be responsible for reviewing the proposed project with respect to conservation planning related to the City's MSCP SAP, specifically in regard to project impacts

within and adjacent to the Multi-habitat Planning Area (MHPA). The MHPA is the planning area for core biological resources and corridors targeted for conservation within the City's MSCP SAP. Impacts proposed within the MHPA are subject to additional restrictions and requirements than areas outside of the MHPA. In July 1997, the USFWS, CDFW, and City entered into the Implementing Agreement for the MSCP (City 1997), which allows the incidental take of threatened and endangered species as well as regionally sensitive species conserved by it (i.e., covered species). Coastal California gnatcatcher is a covered species under the City's SAP. Approval of the City's draft Vernal Pool Habitat Conservation Plan (VPHCP) would provide take coverage for seven species that are associated with vernal pools, including the following four species that are known from the airport site or have historic records on site: San Diego fairy shrimp, San Diego mesa mint, San Diego button-celery, and spreading navarretia. However, regardless of MSCP coverage status, federal agencies that take action on a project (e.g. USACE or FAA) that may affect a federally listed species are still required to consult with the USFWS.

Existing Conditions

Baseline biological resources information was reviewed and compiled from several sources, including the City of San Diego draft VPHCP (2016), CDFW California Natural Diversity Database (CNDDB [CDFW 2017a]), USFWS sensitive species database (USFWS 2017), *Resource Management Plan for Montgomery Field Airport* (P&D Environmental 1998), and biological reports for various projects including *Montgomery Field Runway Extension Project* (HELIX 2009-2013 and 2016), *Montgomery Field Localizer Project* (Merkel and Associates 2015), and *Montgomery Field Reconstruct 5-23 and Taxiway G Project* (Rocks Biological 2013). The baseline data was supplemented with a single site reconnaissance conducted by HELIX on June 8, 2017 to verify and update previous vegetation mapping and note the presence of any additional sensitive species observed. Focused surveys were not conducted as part of the field effort for this Airport Master Plan, although results of biological surveys from various projects conducted on the airport over the past several years have been incorporated to the extent available.

Nomenclature used in this report generally comes from Holland (1986) and Oberbauer (2008) for vegetation; Baldwin et al. (2012) for plants; Collins and Taggart (2006) for reptiles and amphibians; American Ornithologists' Union (2016) for birds; and Bradley et al. (2014) for mammals. Plant species status is from the California Native Plant Society (CNPS [2017]) and CDFW (2017b). Animal species status is from CDFW (2017c and 2017d).

Vegetation Communities

A total of 11 vegetation communities or land use types are mapped (**Table 4.4**; see **Figure 4.1**). They include three wetland habitat types (vernal pool, southern willow scrub [including disturbed], and disturbed wetland) and eight upland habitat/land use types (Diegan coastal sage scrub [including disturbed], baccharis scrub [including disturbed], chamise chaparral, non-native grassland, eucalyptus woodland, non-native vegetation, disturbed habitat, and urban/developed land). The term "-disturbed" is used as a subcategory for classification of vegetation communities where more than half of the vegetation normally present is either bare ground and/or consists of weedy species characteristic of disturbed areas.

Table 4.4 - Vegetation Communities/Land Use Types at MYF

Vegetation Communities/Land Use	MSCP Tier[17]	Acreage[28]
Wetlands		
Vernal Pool	-	9.53
Southern Willow Scrub (including disturbed)	-	1.09
Disturbed Wetland	-	0.47
	Wetlands Subtotal	**11.09**
Uplands		
Diegan Coastal Sage Scrub (including disturbed)	II	97.8
Baccharis Scrub (including disturbed)	II	11.1
Chamise Chaparral	IIIA	5.4
Non-native Grassland	IIIB	160.7
Eucalyptus Woodland	IV	0.5
Non-native Vegetation	IV	0.2
Disturbed Habitat	IV	51.4
Urban/Developed Land	IV	211.1
	Uplands Subtotal	**538.2**
	TOTAL	**549.3**

Source: HELIX Analysis, 2017

Vernal Pool

Vernal pools are ephemeral wetlands that form in small pools and swales as a result of a subsurface hardpan or claypan that inhibits the downward percolation of water. The landscape conditions usually consist of relatively level areas (e.g., mesas) with low hummocks (mima mounds) and shallow basins (vernal pools). The climate consists of cool, wet winters and hot, dry summers. If sufficient rainfall occurs during the rainy season, the combination of landscape position, low soil permeability, and climatic conditions results in water ponding in the pools, that then gradually evaporates and becomes completely dry over the summer and fall. Vernal pools may not fill at all with water during dry years. These highly specialized wetland habitats support a unique flora and are identified by having at least one indicator plant species present (USACE 1997). Several species of rare plants are associated with vernal pools, as are rare invertebrates such as San Diego fairy shrimp (*Branchinecta sandiegonensis*) and Riverside fairy shrimp (*Streptocephalus woottoni*).

Vernal pool boundaries were obtained from the City's 2012 Updated Vernal Pool Database (as depicted in the City's 2016 draft VPHCP), and supplemented with boundary data from site-specific vernal pool restoration and enhancement activities (HELIX 2016). On-site pools are part of the VPHCP's Central Planning Unit, which is located generally south of SR 52 and north of SR 94. Pursuant to the draft VPHCP, a total of 333 vernal pools occur on the airport site, and are situated within the N5-6 complex. Characteristic species present include dwarf woolly-marbles (*Psilocarphus brevissimus*), prairie plantain (*Plantago elongata*), and water pygmyweed (*Crassula aquatica*). Vernal pools total 9.53 acres of the airport property.

Southern Willow Scrub

Southern willow scrub consists of dense, broadleaved, winter-deciduous stands of trees dominated by shrubby willows (*Salix* spp.) in association with mule fat (*Baccharis salicifolia*). This habitat typically occurs on loose, sandy, or fine gravelly alluvium deposited near stream channels during flood flows.

7 Tiers refer to the City's Multiple Species Conservation Program (MSCP) Subarea Plan (SAP) habitat classification system for upland habitats. Wetlands are not assigned tiers.
8 Rounded to the nearest tenth acre for uplands and the nearest hundredth acre for wetlands; totals reflect rounding.

Arroyo willow (*Salix lasiolepis*) is the dominant species present in this habitat on site, which occurs in association with a channel in the southeastern portion of the site. A total of 1.09 acres of southern willow scrub was mapped on site (including 0.89 acres of disturbed southern willow scrub; (HELIX, 2017)).

Disturbed Wetland
Disturbed wetland is dominated by exotic wetland species that invade areas that have been previously altered or undergone periodic disturbances. These non-natives become established more readily following natural or human-induced habitat disturbance than the native wetland flora. Characteristic species of disturbed wetlands include giant reed (*Arundo donax*) and tamarisk (*Tamarix* sp.).

Disturbed wetland on site is composed of tamarisk, pampas grass (*Cortaderia* sp.), curly dock (*Rumex crispus*), and castor-bean (*Ricinis communis*). This habitat occurs as two narrow reaches in the eastern portion of the site, totaling 0.47 acre (HELIX, 2017).

Diegan Coastal Sage Scrub (including disturbed)
Coastal sage scrub is one of the two major shrub types that occur in southern California, occupying xeric sites characterized by shallow soils (the other is chaparral). Four distinct coastal sage scrub geographical associations (northern, central, Venturan, and Diegan) are recognized along the California coast. Diegan coastal sage scrub may be dominated by a variety of species depending upon soil type, slope, and aspect. Species typically found within Diegan coastal sage scrub include California sagebrush, California buckwheat (*Eriogonum fasciculatum*), laurel sumac (*Malosma laurina*), lemonadeberry (*Rhus integrifolia*), white sage (*Salvia apiana*), and black sage (*Salvia mellifera*). Disturbed Diegan coastal sage scrub contains many of the same shrub species as undisturbed Diegan coastal sage scrub, but is sparser and has a higher proportion of non-native, annual species.

Diegan coastal sage scrub on site is dominated by California sagebrush, California buckwheat, and deerweed (*Acmispon glaber*). Diegan coastal sage scrub occurs in the eastern and northeastern portions of the site. A total of 97.8 acres of Diegan coastal sage scrub (including 33.7 acres of disturbed sage scrub) was mapped on site (HELIX, 2017).

Baccharis Scrub (including disturbed)
Baccharis scrub is an upland community recognized by resources agencies as a subtype of coastal sage scrub that develops under a variety of circumstances following Diegan coastal sage scrub disturbance. This vegetation community is dominated by broom baccharis (*Baccharis sarothroides*) and is confined to the site's southeastern corner. A total of 11.1 acres of baccharis scrub (including 9.4 acres of disturbed baccharis scrub) was mapped on site (HELIX, 2017).

Chamise Chaparral
Chamise chaparral is the most widely distributed chaparral subtype and is dominated by the species chamise (*Adenostoma fasciculatum*). This vegetation community is found from Baja to northern California in pure or mixed stands. It often dominates at low elevations and on xeric south-facing slopes with 60-90 percent canopy cover. Along its lower elevation limit, chamise chaparral intergrades with coastal sage scrub (Rundel 1986). Mission manzanita and black sage are other plant species often associated within this vegetation community.

Characteristic species within this habitat on site include chamise, laurel sumac, and toyon (*Heteromeles arbutifolia*). This habitat occurs as small, scattered stands within and adjacent to sage scrub in the eastern portion of the site, totaling 5.4 acres (HELIX, 2017).

Non-Native Grassland
Non-native grassland is a dense to sparse cover of annual grasses, sometimes associated with numerous species of native annual forbs. This association occurs on gradual slopes with deep, fine-textured, usually clay soils. Characteristic species include oats (*Avena* sp.), red brome (*Bromus rubens*), ripgut (*B. diandrus*), barley (*Hordeum* sp.), and mustard (*Brassica* sp.). Most of the annual introduced species that comprise the majority of species and biomass within the non-native grassland originated from the Mediterranean region, an area with a long history of agriculture and a climate similar to California.

Characteristic species found in this habitat on site include oats and red brome. Non-native grassland is widespread in the northern and central portions of the site, occupying a total of 160.7 acres (29 percent) of the site (HELIX, 2017).

Eucalyptus Woodland
Eucalyptus woodland is dominated by eucalyptus (*Eucalyptus* sp.), an introduced genus that produces a large amount of leaf and bark litter. The chemical and physical characteristics of this litter limit the ability of other species to grow in the understory, and floristic diversity decreases. If sufficient moisture is available, eucalyptus becomes naturalized and is able to reproduce and expand its range.

Eucalyptus woodland mapped on site consists of two small stands of eucalyptus trees along the perimeter of the Airport, totaling 0.5 acre (HELIX, 2017).

Non-native Vegetation
Non-native vegetation is a category describing stands of naturalized trees and shrubs (e.g., acacia [*Acacia* sp.], peppertree [*Schinus* sp.]), many of which are also used in landscaping. On site, this habitat consists of a single small stand of acacia in the eastern portion of the site, totaling 0.2 acre (HELIX, 2017).

Disturbed Habitat
Disturbed habitat includes land cleared of vegetation (e.g., dirt roads), land containing a preponderance of non-native plant species such as ornamentals or ruderal exotic species that take advantage of disturbance (previously cleared or abandoned landscaping), or land showing signs of past or present animal usage that removes any capability of providing viable habitat.

Disturbed habitat on site includes such species as garland daisy (*Glebionis coronaria*), telegraph weed (*Heterotheca grandiflora*), filaree (*Erodium* sp.), and Australian saltbush (*Atriplex semibaccata*). It primarily occurs adjacent to existing taxiways, runways, and other developed lands on site. Disturbed habitat totals 51.4 acres on site (HELIX, 2017).

Urban/Developed Land
Urban/developed land includes areas that have been constructed upon or otherwise covered with a permanent, unnatural surface and may include, for example, structures, pavement, irrigated landscaping, or hardscape to the extent that no natural land is evident. These areas no longer support native or naturalized vegetation. Developed portions of the site consist of existing taxiways, runways, paved parking areas, and airfield buildings. A total of 211.1 acres of urban/developed land occurs on site (HELIX, 2017).

Jurisdictional Waters and Wetlands

The site supports areas that could be considered jurisdictional waters or wetlands potentially subject to the regulatory jurisdiction of the USACE pursuant to Section 404 of the Clean Water Act (CWA; 33 USC 1344), the RWQCB pursuant to Section 401 of the CWA and/or the State Porter-Cologne Water

Quality Control Act, and the CDFW pursuant to Sections 1600 et seq. of the CFG Code, or that may be considered City-defined wetlands under the City's ESL ordinance. These include vernal pools, southern willow scrub, and disturbed wetland, as well as potential non-wetland waters of the U.S./stream channel. Surveys to delineate jurisdictional resources have only been conducted within portions of the airport property (e.g. RECON 2008). Future projects with the potential to impact wetlands and/or waters may require site-specific jurisdictional delineations to define the type and extent of jurisdictional areas within the action area. Only the USACE, RWQCB, and CDFW can make a final determination of jurisdictional boundaries.

Sensitive Natural Communities

Sensitive natural communities include land that supports unique vegetation communities or the habitats of rare or endangered species or subspecies of animals or plants as defined by Section 15380 of the CEQA Guidelines or as regulated pursuant to NEPA under guidance provided in FAA Order 1050.1F.

Sensitive natural communities observed within the project site include wetland habitats and City MSCP Tier II, IIIA, and IIIB habitats, namely, vernal pool, southern willow scrub (including disturbed), disturbed wetland, Diegan coastal sage scrub (including disturbed), baccharis scrub (including disturbed), chamise chaparral, and non-native grassland.

Sensitive Plant Species

Sensitive plant species are considered uncommon or limited in that they (1) are only found in the San Diego region, (2) are a local representative of a species or association of species not otherwise found in the region, or (3) are severely depleted within their ranges or within the region. High-interest plants include those that are listed as threatened or endangered by the USFWS or CDFW, and those afforded a California Rare Plant Rank (CRPR) designation of 1 or 2 by the CNPS, although species with lower CRPR ranks (i.e., CRPR 3 and 4 species) also may be considered sensitive species by local jurisdictions; however, no CRPR 3 or 4 species are specifically identified as sensitive species in the City's Biology Guidelines or MSCP SAP. According to the CNPS, CRPR 1 and 2 species meet the State CEQA Guidelines definition for Rare or Endangered and, therefore, must be considered in project CEQA analysis. While CRPR 3 and 4 species do not have this requirement, CNPS recommends that they be disclosed.

In terms of NEPA analysis, FAA Order 1050.1F includes significance thresholds for federally listed species; though the FAA has not established significance thresholds for non-listed species. However, FAA Order 1050.1F states the following as factors to consider: "The action would have the potential for (a) a long-term or permanent loss of unlisted plant or wildlife species, i.e., extirpation of the species from a large project area; (b) adverse impacts to special status species (e.g., state species of concern, species proposed for listing, migratory birds, bald and golden eagles) or their habitats; (c) substantial loss, reduction, degradation, disturbance, or fragmentation of native species' habitats or their populations; or (d) adverse impacts on a species' reproductive success rates, natural mortality rates, non-natural mortality (e.g., road kills and hunting), or ability to sustain the minimum population levels required for population maintenance.

Federally or State Listed Plant Species

Three federally and/or state listed plant species have been recorded on Airport property; these are the federally and state listed endangered San Diego button-celery (*Eryngium aristulatum* var. *parishii*) and San Diego mesa mint (*Pogogyne abramsii*), and the federally listed threatened spreading navarretia (*Navarretia fossalis*). However, San Diego button-celery and spreading navarretia may no longer be extant on the airport site. Additional information is provided in **Table 4.5**.

Other Sensitive Plant Species

Five other sensitive plant species have been recorded on site, including four CRPR designation 1 or 2 species: coast barrel cactus (*Ferocactus viridescens*), Nuttall's scrub oak (*Quercus dumosa*), Orcutt's brodiaea (*Brodiaea orcuttii*), and San Diego goldenstar (*Bloomeria clevelandii*); and one CRPR designation 4 species: graceful tarplant (*Holocarpha virgata* ssp. *elongata*). Additional information is provided in **Table 4.6**.

Table 4.5 – Federally or State Listed Plant Species at MYF

Name	Listing[9]	Distribution	Habitat	Presence on site
San Diego Button-celery (*Eryngium aristulatum* var. *parishii*)	FE/SE; CNPS List 1B.1; City MSCP Narrow Endemic	San Diego and Riverside counties; Baja California, Mexico.	Vernal pools or mima mound areas with vernally moist conditions are preferred habitat	A single CNDDB record (see **Figure 4.2**) indicate this species was found in a single pool in the eastern portion of the site in 1979, but species has not been observed again. The City's 2016 draft VPHCP does not show this species as occurring on site, and it may no longer be extant at this location.
San Diego Mesa Mint (*Pogogyne abramsii*)	FE/SE; CRPR List 1B.1 CA-Endemic; City MSCP Narrow Endemic	Western San Diego County; Baja California, Mexico	This small annual is restricted to vernal pools in grasslands, chamise chaparral, and coastal sage scrub on mesas	Species has been documented in several vernal pools in the eastern and northeastern portions of the site (HELIX 2009-2013 and City VPHCP data).
Spreading Navarretia (*Navarretia fossalis*)	FT/--; CRPR 1B.1; City MSCP Narrow Endemic	Western Riverside and southwestern San Diego counties as well as northwestern Baja California, Mexico	Vernal pools, vernal swales, or roadside depressions. Population size is strongly correlated with rainfall. Depth of pool appears to be a significant factor as this species is rarely found in shallow pools.	CNDDB records (see **Figure 4.2**) indicate this species was found in the northeast portion of the site in 1979, however, 1986 surveys of the same pools were negative, and successive surveys also have been negative for this species. The City's 2016 draft VPHCP does not show this species as occurring on site and it may no longer be extant at this location.

Sources: California Department of Fish and Wildlife (CDFW). 2017a. California natural diversity data base (CNDDB). RareFind Database Program, Version 5.2.7; CDFW 2017b. State and federally listed endangered, threatened, and rare plants of California. Biogeographic Data Branch, California Natural Diversity Database; California Native Plant Society. 2017. Inventory of rare and endangered plants (online edition, v8-03); U.S. Fish and Wildlife Service. 2017. Occurrence Information for Multiple Species within Jurisdiction of the Carlsbad Fish and Wildlife Office (CFWO)

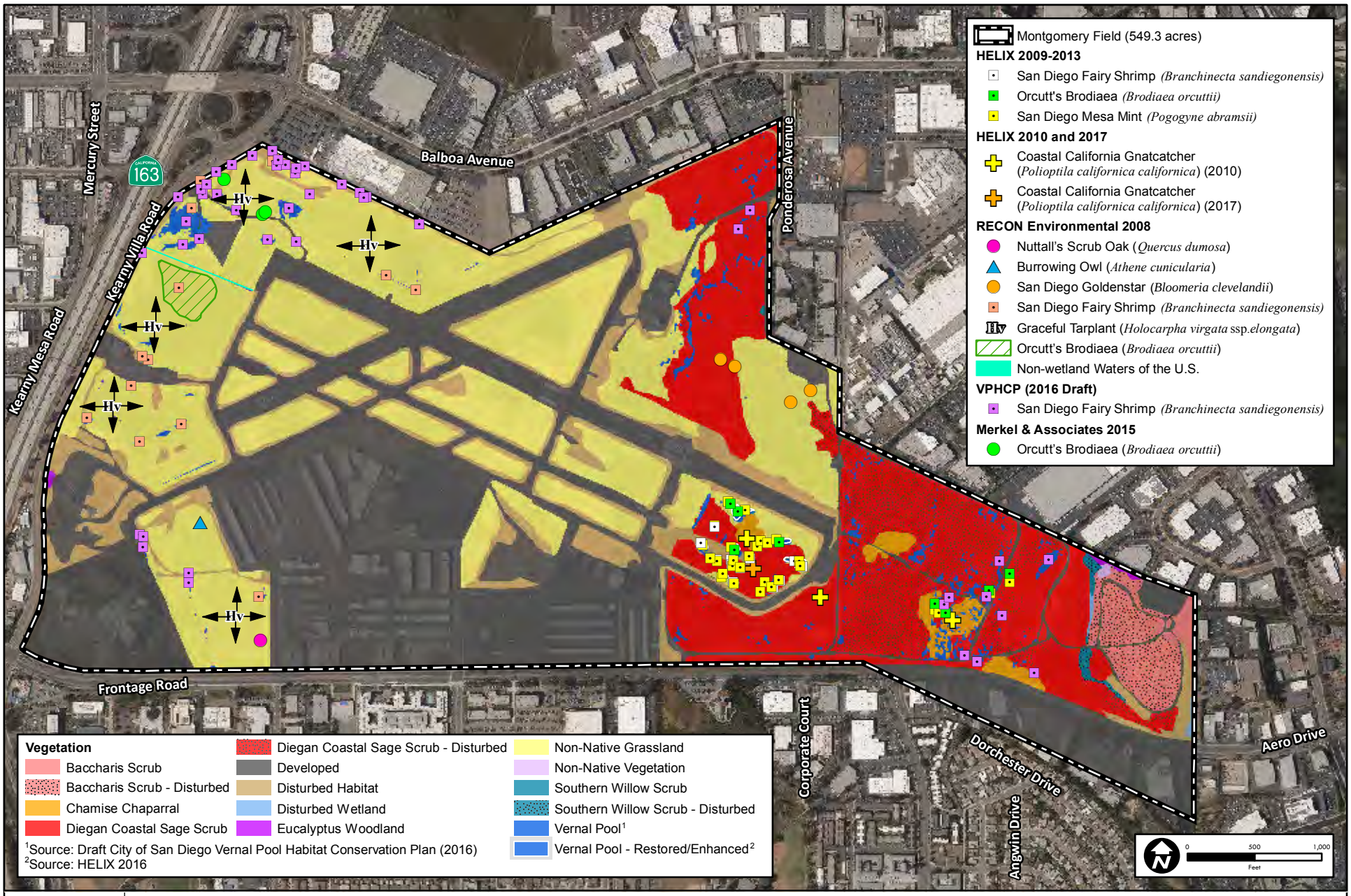
9 Listing is as follows: F = Federal; S = State of California; E = Endangered; T = Threatened; CRPR = California Rare Plant Rank: 1A – presumed extinct; 1B – rare, threatened, or endangered in California and elsewhere; 2A – presumed extirpated in California but more common elsewhere; 2B – rare, threatened, or endangered in California but more common elsewhere; 3 – more information needed; 4 – watch list for species of limited distribution. Extension codes: .1 – seriously endangered; .2 – moderately endangered; .3 – not very endangered.

Table 4.6 - Other Sensitive Plant Species at MYF

Name	Listing[10]	Distribution	Habitat	Presence on site
San Diego Barrel Cactus (*Ferocactus viridescens*)	--/--; CRPR 2B.1; City MCSP Covered	San Diego County; Baja California, Mexico	Optimal habitat for this cactus appears to be Diegan coastal sage scrub hillsides, often at the crest of slopes and growing among cobbles. Occasionally found on vernal pool periphery and mima mound topography in Otay Mesa	Fewer than 10 individuals observed in coastal sage scrub in the eastern portion of the site (P&D Environmental 1998). Population is presumed extant.
Graceful Tarplant (*Holocarpha virgata* ssp. *elongata*)	--/--; CRPR 4.2; CA Endemic	San Diego, Orange, and Riverside counties	Grasslands on coastal mesas and in foothills	Species is widespread in non-native grassland habitat on site and has been noted during several biological surveys (RECON 2008, Rocks Biological Consulting 2013).
Nuttall's Scrub Oak (*Quercus dumosa*)	--/--; CRPR 1B.1	San Diego, Orange, and Santa Barbara counties in California; Baja California, Mexico	Coastal chaparral and coastal scrub with sandy or clay loam soils	Scattered individuals were observed in Diegan coastal sage scrub and chamise chaparral by HELIX during the June 2017 field reconnaissance, and five individuals were observed in one location in non-native grassland (RECON 2008). Individuals occurring in the grassland habitat are subject to mowing from airport maintenance operations.
Orcutt's Brodiaea (*Brodiaea orcuttii*)	--/--; CRPR 1B.1; City MSCP Covered	Riverside and San Bernardino counties south to Baja California, Mexico	Vernally moist grasslands, mima mound topography, and vernal pool periphery are preferred habitat. Occasionally will grow on streamside embankments in clay soils	A population of several hundreds of individuals was found within an area west of the runway (RECON 2008), and smaller numbers of this species were documented in discrete locations within and adjacent to several onsite vernal pools (HELIX 2010-2013; Merkel and Associates 2015
San Diego Goldenstar (*Bloomeria clevelandii*)	--/--; CRPR 1B.1; City MSCP Covered	Southwestern San Diego County; northwestern Baja California, Mexico	Valley grasslands, particularly near mima mound topography or in the vicinity of vernal pools. Clay soils on dry mesas and hillsides in coastal sage scrub or chaparral	Several small populations (one to 15 individuals) were observed within grassland and sage scrub in the eastern portion of the site (RECON 2008).

10 Listing is as follows: F = Federal; S = State of California; E = Endangered; T = Threatened; CRPR = California Rare Plant Rank: 1A – presumed extinct; 1B – rare, threatened, or endangered in California and elsewhere; 2A – presumed extirpated in California but more common elsewhere; 2B – rare, threatened, or endangered in California but more common elsewhere; 3 – more information needed; 4 – watch list for species of limited distribution. Extension codes: .1 – seriously endangered; .2 – moderately endangered; .3 – not very endangered.

Sources: California Department of Fish and Wildlife (CDFW). 2017a. California natural diversity data base (CNDDB). RareFind Database Program, Version 5.2.7; CDFW 2017b. State and federally listed endangered, threatened, and rare plants of California. Biogeographic Data Branch, California Natural Diversity Database; California Native Plant Society. 2017. Inventory of rare and endangered plants (online edition, v8-03); U.S. Fish and Wildlife Service. 2017. Occurrence Information for Multiple Species within Jurisdiction of the Carlsbad Fish and Wildlife Office (CFWO)



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FIGURE 4.1

Vegetation and Sensitive Biological Resources for MYF

100054723 MYF/SDM Master Plans

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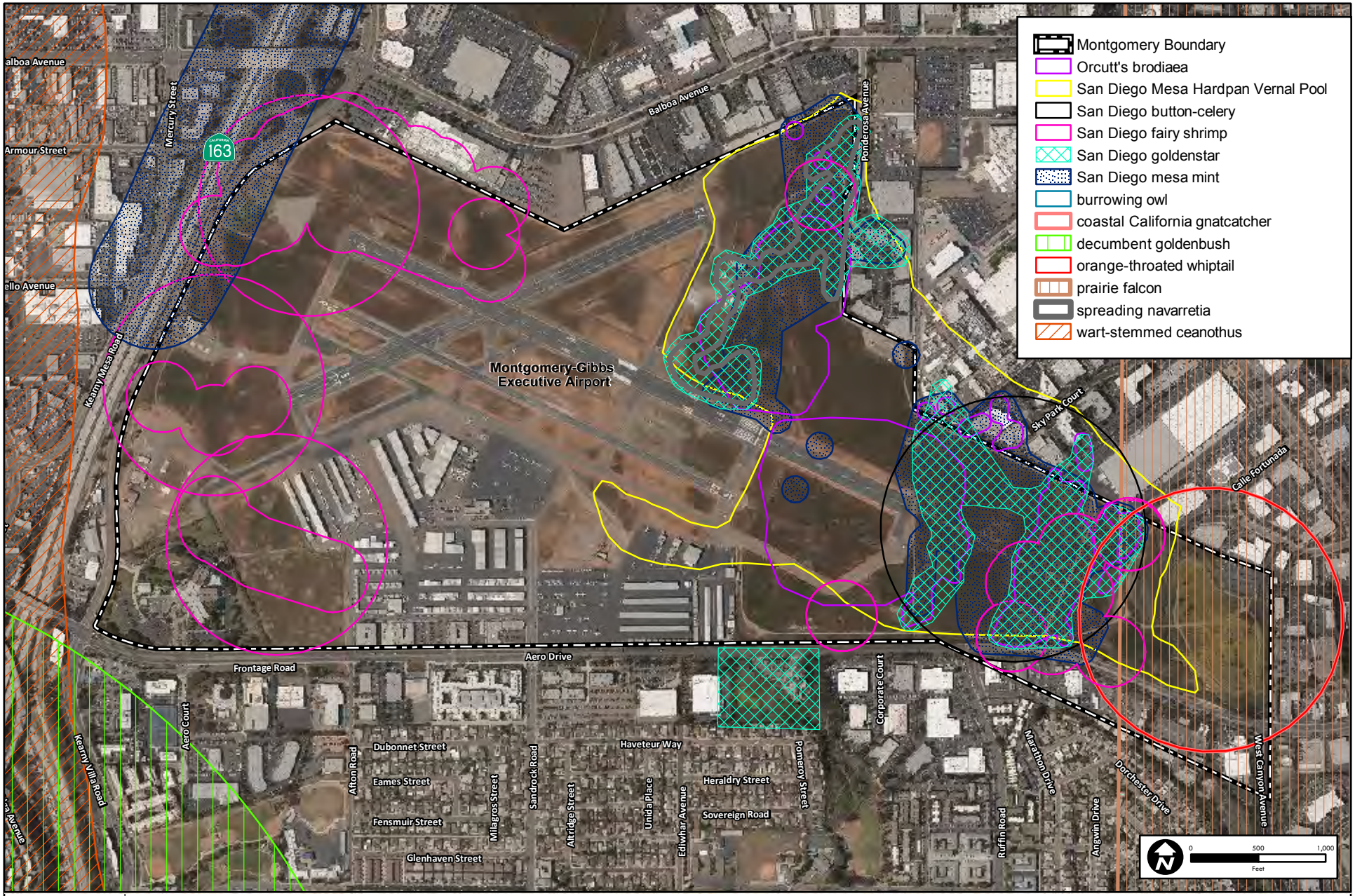


FIGURE 4.2

CNDDB/USFWS Sensitive Species Database Records at MYF

Source: CDFW (CNDDB, 5/2017); USFWS, 4/2017).

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Sensitive Animal Species

Sensitive animal species include those that have been afforded special status and/or recognition by the USFWS and/or CDFW. In general, the principal reason an individual taxon (species or subspecies) is given such recognition is the documented or perceived decline or limitations of its population size or geographical extent and/or distribution, resulting in most cases from habitat loss.

As stated previously under "Sensitive Plant Species", FAA Order 1050.1F includes significance thresholds for federally listed species; though the FAA has not established significance thresholds for non-listed species. However, FAA Order 1050.1F states the following as factors to consider: "The action would have the potential for (a) a long-term or permanent loss of unlisted plant or wildlife species, i.e., extirpation of the species from a large project area; (b) adverse impacts to special status species (e.g., state species of concern, species proposed for listing, migratory birds, bald and golden eagles) or their habitats; (c) substantial loss, reduction, degradation, disturbance, or fragmentation of native species' habitats or their populations; or (d) adverse impacts on a species' reproductive success rates, natural mortality rates, non-natural mortality (e.g., road kills and hunting), or ability to sustain the minimum population levels required for population maintenance.

Federally or State Listed Animal Species

Three federally listed animal species have been documented on airport property; these are the federally listed threatened coastal California gnatcatcher (*Polioptila californica californica*), the federally listed endangered San Diego fairy shrimp (*Branchinecta sandiegonensis*) and the federally listed endangered and state listed endangered least Bell's Vireo (*Vireo bellii pusillus*). Additional information is provided in **Table 4.7**.

Other Sensitive Animal Species

Thirteen other sensitive animal species have been documented on airport property: burrowing owl (*Athene cunicularia*), California horned lark (*Eremophila alpestris actia*), Cooper's hawk (*Accipiter cooperii*), Coronado skink (*Eumeces skiltonianus interparietalis*), loggerhead shrike (*Lanius ludovicianus*), northern harrier (*Circus cyaneus*), orange-throated whiptail (*Aspidoscelis hyperythra*), San Diego desert woodrat (*Neotoma lepida intermedia*), San Diego horned lizard (*Phrynosoma coronatum blainvillii*), sharp-shinned hawk (*Accipiter striatus*), southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*), western spadefoot (*Spea hammondii*), and white-tailed kite (*Elanus leucurus*). Additional information is provided below.

Table 4.7 – Federally or State Listed Animal Species at MYF

Name	Status[11]	Distribution	Habitat	Presence on site
Coastal California Gnatcatcher (*Polioptila californica californica*)	FT/SSC; City MSCP Covered	In San Diego County, occurs throughout coastal lowlands	Coastal sage scrub, coastal bluff scrub, and coastal sage-chaparral scrub	Species was detected in 3 locations within Diegan coastal sage scrub and chamise chaparral in the eastern portion of the site during vernal pool restoration field work conducted in 2010 (HELIX 2010), and one individual was detected in Diegan coastal sage scrub in the eastern portion of the site during HELIX's 2017 site reconnaissance
San Diego Fairy Shrimp (*Branchinecta sandiegonensis*	FE/--.	San Diego County and extreme northern Baja California, Mexico	Seasonally astatic pools which occur in tectonic swales or earth slump basins and other areas of shallow, standing water often in patches of grassland and agriculture interspersed in coastal sage scrub and chaparral	Species has been documented in numerous vernal pools on site from various biological surveys (RECON 2008; HELIX 2010-2016; and City's 2012 vernal pool database [draft VPHCP 2016]). Refer to **Figure 4.1**.
Least Bell's Vireo (*Vireo bellii pusillus*)	FE/SE; BCC	San Diego County and throughout coastal California, ranging to Santa Clara County	Riparian habitat including dense shrubs and small trees	A single male was detected in 2017 at one location near Aero Drive, staying on site for three weeks before avoiding further detection.

Sources: California Department of Fish and Wildlife (CDFW). 2017a. California natural diversity data base (CNDDB); CDFW 2017c. State and federally listed endangered and threatened animals of California; CDFW 2017d. Special animals list; U.S. Army Corps of Engineers (USACE). 1997. Indicator Species for Vernal Pools; U.S. Fish and Wildlife Service. 2017. Occurrence Information for Multiple Species within Jurisdiction of the Carlsbad Fish and Wildlife Office (CFWO)

11 Status is as follows: F = Federal; S = State of California; E = Endangered; T = Threatened; C=Candidate; R = Rare; FP = Fully Protected; BCC = Bird of Conservation Concern; SSC = State Species of Special Concern; WL = CDFW Watch List.

Table 4.8 - Other Sensitive Animal Species

Name	Status[12]	Distribution	Habitat	Presence on site
Burrowing Owl (*Athene cunicularia*)	BCC/SSC (nesting sites and some wintering sites); City MSCP Covered	In San Diego County, occurs in a few scattered sites	Grassland or open scrub habitats	A single burrowing owl individual was observed in the southwest portion of the site by RECON in 2007. The owl was observed repeatedly in and adjacent to a burrow during protocol breeding season surveys in 2007 (RECON 2008). No other owls have been observed on site during various biological surveys conducted in 1994, 1996, 2009, 2010, 2011, 2012, 2013, 2016, and 2017 (P&D Environmental 1998; HELIX 2009-2013; HELIX 2016; Rocks Biological 2013; Merkel and Associates 2015).
California Horned Lark (*Eremophila alpestris actia*)	--/WL	Observed year-round scattered throughout San Diego County	Coastal strand, arid grasslands, and sandy desert floors	Observed on site in 1994 (P&D Environmental 1998).
Cooper's Hawk (*Accipiter cooperii*)	--/WL; City MSCP Covered	Occurs year-round throughout San Diego County's coastal slope where stands of trees are present	Oak groves, mature riparian woodlands, and eucalyptus stands or other mature forests	Two individuals observed in eucalyptus trees in the eastern portion of the site in 1996 (P&D Environmental 1998).
Coronado Skink (*Eumeces skiltonianus interparietalis*)	--/SSC	Southwestern California from Los Angeles County south into northwestern Baja California, Mexico; also occurs on several islands off the Pacific coast including Los Coronados Islands	Grasslands, coastal sage scrub, open chaparral, oak woodland, and coniferous forests, usually under rocks, leaf litter, logs, debris, or in the shallow burrows it digs (Zeiner et al. 1988)	Observed on site in 1994 (P&D Environmental 1998

12 Status is as follows: F = Federal; S = State of California; E = Endangered; T = Threatened; C=Candidate; R = Rare; FP = Fully Protected; BCC = Bird of Conservation Concern; SSC = State Species of Special Concern; WL = CDFW Watch List.

Loggerhead Shrike (*Lanius ludovicianus*)	BCC/SSC	An uncommon year-round resident observed throughout San Diego County but absent from pinyon woodlands in higher elevations of the Santa Rosa and Vallecito mountains	Grassland, open sage scrub, chaparral, and desert scrub	Observed in chamise chaparral in 1996 (P&D Environmental 1998).
Northern Harrier (*Circus cyaneus*)	--/SSC; City MSCP Covered	In San Diego County, distribution primarily scattered throughout lowlands but can also be observed in foothills, mountains, and desert	Open grassland and marsh	Observed on site in 1994 (P&D Environmental 1998).
Orange-throated Whiptail (*Aspidoscelis hyperythra*)	--/WL	Southern Orange County and southern San Bernardino County, south through Baja California.	Coastal sage scrub, chaparral, edges of riparian woodlands, and washes. Also found in weedy, disturbed areas adjacent to these habitats. Important habitat requirements include open, sunny areas, shaded areas, and abundant insect prey base, particularly termites	Observed in chamise chaparral in 1996 (P&D Environmental 1998).
San Diego Desert Woodrat (*Neotoma lepida intermedia*)	--/SSC	Coastal slope of southern California from San Luis Obispo County south into coastal northwestern Baja California, Mexico	Open chaparral and coastal sage scrub, often building large, stick nests in rock outcrops or around clumps of cactus or yucca	Nests were observed in sage scrub and chaparral in 1996 (P&D Environmental 1998).
San Diego Horned Lizard (*Phrynosoma coronatum blainvillii*)	--/SSC, City MSCP Covered	Northern California though coastal southern California into northern Baja California	Coastal sage scrub and open areas in chaparral, oak woodlands, and coniferous forests with sufficient basking sites, adequate scrub cover, and areas of loose soil; require native ants, especially harvester ants (*Pogonomyrmex* sp.), and are generally excluded from areas invaded by Argentine ants (*Linepithema humile*)	Observed in coastal sage scrub in the eastern portion of the site in 1996 (P&D Environmental 1998).
Sharp-shinned Hawk (*Accipiter striatus*)	--/WL	In San Diego County, has widespread distribution but occurs in small numbers and only during winter.	Usually observed in areas with tall trees or other vegetative cover but can be observed in a variety of habitats	Observed on site in 1994 (P&D Environmental 1998).
Southern California Rufous-crowned	--/WL; City MSCP	Observed throughout coastal lowlands and foothills of San	Coastal sage scrub and open chaparral as well as shrubby grasslands	Observed in coastal sage scrub in the eastern portion of the site in 1996

Sparrow (*Aimophila ruficeps canescens*)	Covered	Diego County		(P&D Environmental 1998).
Western Spadefoot (*Spea hammondii*)	--/SSC	Throughout the Central Valley and San Francisco Bay area south along the coast to northwestern Baja California	Occurs in open coastal sage scrub, chaparral, and grassland, along sandy or gravelly washes, floodplains, alluvial fans, or playas; require temporary pools for breeding and friable soils for burrowing; generally excluded from areas with bullfrogs (*Rana catesbiana*) or crayfish (*Procambarus* sp)	Observed in 1994 in the vicinity of vernal pools in the east central portion of the site (P&D Environmental 1998).
White-tailed Kite (*Elanus leucurus*)	--/FP	Primarily occurs throughout coastal slopes of San Diego County	Riparian woodlands and oak or sycamore groves adjacent to grassland	Observed foraging on site in 1994 (P&D Environmental 1998).

Sources: California Department of Fish and Wildlife (CDFW). 2017a. California natural diversity data base (CNDDB); CDFW 2017c. State and federally listed endangered and threatened animals of California; CDFW 2017d. Special animals list; U.S. Army Corps of Engineers (USACE). 1997. Indicator Species for Vernal Pools; U.S. Fish and Wildlife Service. 2017. Occurrence Information for Multiple Species within Jurisdiction of the Carlsbad Fish and Wildlife Office (CFWO)

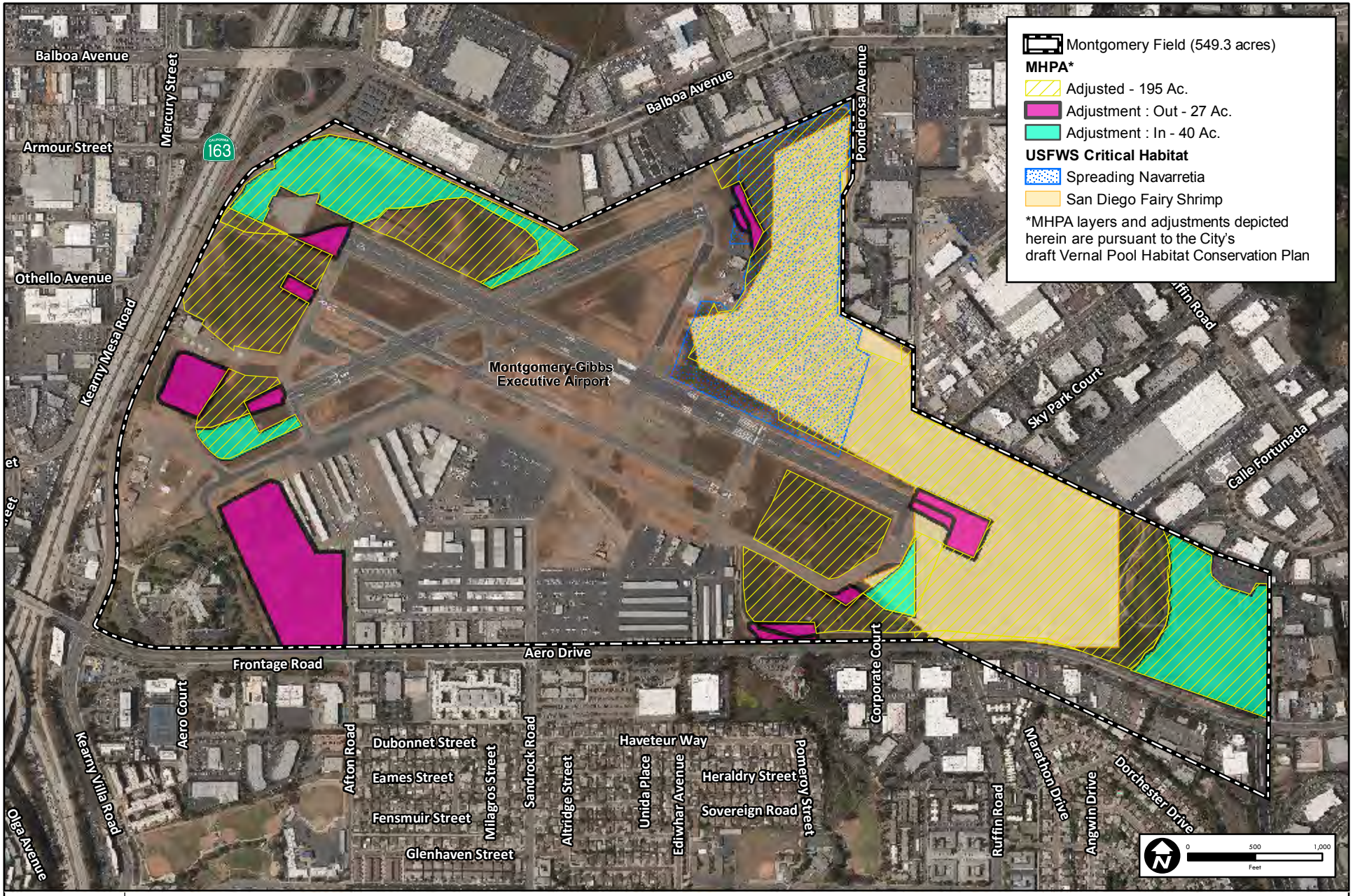


FIGURE 4.3

USFWS Critical Habitat and City Multi-Habitat Planning Area for MYF

Source: MHPA (City of San Diego 2017); Critical Habitat (USFWS multiple dates).

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Critical Habitat and Regional Conservation Planning Context

USFWS Critical Habitat
USFWS-designated critical habitat for spreading navarretia occurs within the northeastern portion of the airport property, occupying a total of 48.3 acres on site. USFWS-designated critical habitat for San Diego fairy shrimp occurs in the eastern portion of the airport, occupying a total of 95.7 acres on airport property. Refer to **Figure 4.3**.

Multi-habitat Planning Area
The Airport is within the boundary of the City's MSCP SAP (City 1997). The airport contains areas mapped as Multi-habitat Planning Areas (MHPA) under the City's SAP. The MHPA is the planning area for core biological resources and corridors targeted for conservation within the City's MSCP SAP. A total of 164.9 acres of MHPA currently exist on airport property (see **Figure 4.3**), and includes the majority of sage scrub and vernal pools in the eastern and northeastern portions of the airport property, as well as vernal pools within grassland habitat in the western portion of the property.

A boundary line adjustment (BLA) is proposed to the existing MHPA on the airport concurrent with the adoption of the City's VPHCP. According to the draft VPHCP (City 2016), the BLA would add vernal pools and surrounding habitat into the MHPA that have increased occupation by sensitive vernal pool resources and a higher habitat value. The BLA would result in a net increase of 13 acres to the existing MHPA and provide for the conservation of higher quality vernal pool habitat and sensitive species, as well as allowing for improved connectivity within the vernal pool complex and ability to restore, enhance, and manage the on-site vernal pool resources. The BLA also would remove the Runway Safety Areas from the MHPA in order to meet FAA regulations, and identifies areas of lower quality vernal pool habitat where development of aeronautical and non-aeronautical uses may occur.

Summary and Recommendations
Based on habitat and/or species sensitivity, wetland permitting requirements by the USACE, RWQCB, and CDFW, mitigation cost and complexity, and required ESA consultation process with USFWS, the following areas were considered to have the highest level of biological constraint on site.

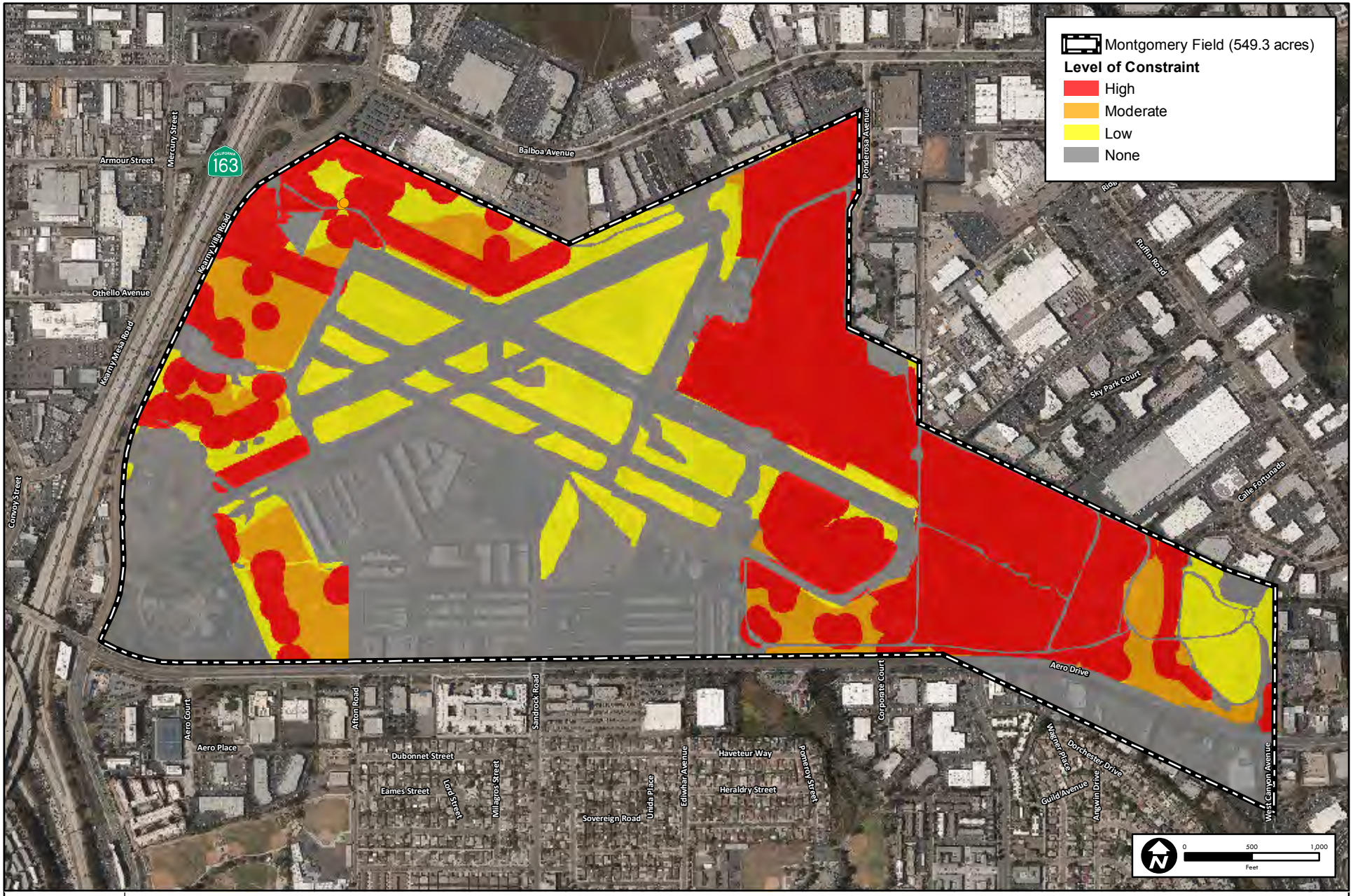
Vernal pools, San Diego fairy shrimp populations, San Diego mesa mint populations, wetlands, and USFWS critical habitat (see **Figure 4.4**) are the most sensitive on-site receptors. Once an area is designated as critical habitat pursuant to the FESA, all federal agencies must consult with the USFWS to ensure that any action they authorize, fund, or carry out is not likely to result in destruction or adverse modification of the critical habitat. Consultation with the USFWS adds time and complexity to the regulatory process. The FAA is anticipated to be the lead federal agency responsible for consultation with the USFWS under Section 7 of the FESA. Consultation initiated by the FAA would address take of listed species regardless of whether they occur within or outside of waters of the U.S., as well as addressing impacts to critical habitat.

Areas considered to have a moderate level of biological constraint include coastal sage scrub, populations of Orcutt's brodiaea and San Diego goldenstar, non-wetland waters, and all MHPA except for areas supporting disturbed habitat. These resources are less sensitive than those that are considered to pose a high level of biological constraint, and are expected to be easier to mitigate and/or have a lesser degree of permitting complexity. Potential future revisions to the MHPA pursuant to the draft 2016 VPHCP would supersede the MHPA boundaries depicted in this document upon approval of the BLA.

Areas considered to have a low level of biological constraint include baccharis scrub (including disturbed), non-native grassland outside of the MHPA and areas of disturbed habitat within the

MHPA. While still considered biologically sensitive, impacts to these resources would be expected to have the most stream-lined approval process compared to areas of moderate and high sensitivity.

No biological constraints were identified for existing developed lands and disturbed habitat outside of the MHPA.



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FIGURE 4.4

Biological Constraints for MYF

100054723 MYF/SDM Master Plans

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Coordination with the USACE regarding whether the on-site vernal pools would be regulated under the CWA would be necessary for any proposed impacts to vernal pools. If on-site vernal pools are determined to be waters of the U.S. by the USACE, impacts to any such vernal pools are likely to require issuance of an Individual Permit under the CWA; rather than a more-streamlined Nationwide Permit. The FAA is anticipated to be the lead federal agency responsible for consultation with the USFWS under Section 7 of the FESA. Consultation initiated by the FAA would address take of listed species regardless of whether they occur within or outside of waters of the U.S.

For purposes of constraints mapping, vernal pools were surrounded by a 100-foot radius to protect their associated watersheds; however, site-specific vernal pool watershed mapping has not been completed for either site. Wetlands were surrounded by a 50-foot buffer. Future projects in the vicinity of vernal pools may require site-specific watershed mapping, and wetland buffer widths would be subject to City and/or regulatory agency approval.

Additionally, as per FAA Advisory Circular FAA AC 150/5200-33B *Hazardous Wildlife Attractants on or Near Airports*, an assessment of potential wildlife hazards should be conducted to determine the potential effects of surrounding attractants. New development projects and land-use amendments that attract or sustain hazardous wildlife populations on or near airports can significantly increase the potential for wildlife strikes.

Further consideration of biological impacts associated with the master plan development at both airport sites is therefore needed.

Department of Transportation Act, Section 4(f)

Section 4(f) of the U.S. Department of Transportation Act of 1966 protects certain significant resources such as publicly owned parks, recreational areas, wildlife and waterfowl refuges of national, state, or local significance, and public and private historic sites of national, state, or local significance.

Regulatory Setting

Section 4(f) properties are defined by 23 CFR 774.17 as "publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, State, or local significance, or land of an historic site of national, State, or local significance." The FAA may not approve the use of a Section 4(f) property, unless it determines the following:

- There is no feasible and prudent avoidance alternative, as defined in Section 774.17, to the use of land from the property.
- The action includes all possible planning, as defined in Section 774.17, to minimize harm to the property resulting from such use.

A use occurs when:

- When land is permanently incorporated into a transportation facility;
- When there is a temporary occupancy of land that is adverse in terms of the statute's preservation purpose as determined by the criteria in § 774.13(d); or
- When there is a constructive use of a Section 4(f) property as determined by the criteria in § 774.15.

However, the Administration may approve a use if it determines that the use of the property, including any measure(s) to minimize harm (such as any avoidance, minimization, mitigation, or enhancement measures) committed to by the applicant, will have a *de minimis* impact, as defined in

§ 774.17, on the property.

A constructive use occurs when the transportation project does not incorporate land from a Section 4(f) property, but the project's proximity impacts are so severe that the protected activities, features, or attributes that qualify the property for protection under Section 4(f) are substantially impaired. Substantial impairment occurs only when the protected activities, features, or attributes of the property are substantially diminished (23 CFR 774.15(a)).

A constructive use occurs when:

- The projected noise level increase attributable to the project substantially interferes with the use and enjoyment of a noise-sensitive facility of a property protected by Section 4(f), such as:
    - Hearing the performances at an outdoor amphitheater
    - Sleeping in the sleeping area of a campground
    - Enjoyment of a historic site where a quiet setting is a generally recognized
    - feature or attribute of the site's significance
    - Enjoyment of an urban park where serenity and quiet are significant attributes
    - Viewing wildlife in an area of a wildlife and waterfowl refuge intended for such viewing

- The proximity of the proposed project substantially impairs esthetic features or attributes of a property protected by Section 4(f), where such features or attributes are considered important contributing elements to the value of the property. Examples of substantial impairment to visual or esthetic qualities would be the location of a proposed transportation facility in such proximity that it obstructs or eliminates the primary views of an architecturally significant historic building, or substantially detracts from the setting of a Section 4(f) property which derives its value in substantial part due to its setting;
- The project results in a restriction of access which substantially diminishes the utility of a significant publicly owned park, recreation area, or a historic site;
- The vibration impact from construction or operation of the project substantially impairs the use of a Section 4(f) property; or
- The ecological intrusion of the project substantially diminishes the value of wildlife habitat in a wildlife and waterfowl refuge adjacent to the project.

A constructive use does not occur when:

- Compliance with the requirements of 36 CFR 800.5 for proximity impacts of the proposed action, on a site listed on or eligible for the National Register, results in an agreement of "no historic properties affected" or "no adverse effect;
- The impact of projected traffic noise levels of the proposed highway project on a noise-sensitive activity do not exceed the FHWA noise abatement criteria as contained in Table 1 in part 23 CFR 772, or the projected operational noise levels of the proposed transit project do not exceed the noise impact criteria for a Section 4(f) activity in the FTA guidelines for transit noise and vibration impact assessment;
- The projected noise levels exceed the relevant threshold in paragraph (f)(2) of (23 CFR 774.15) because of high existing noise, but the increase in the projected noise levels if the proposed project is constructed, when compared with the projected noise levels if the project is not built, is barely perceptible (3 dBA or less);
- There are proximity impacts to a Section 4(f) property, but a governmental agency's right-of-way acquisition or adoption of project location, or the
- Administration's approval of a final environmental document, established the location for the

proposed transportation project before the designation, establishment, or change in the significance of the property. However, if it is reasonably foreseeable that a property would qualify as eligible for the National Register prior to the start of construction, then the property should be treated as a historic site for the purposes of this section; or

- Overall (combined) proximity impacts caused by a proposed project do not substantially impair the activities, features, or attributes that qualify a property for protection under Section 4(f);
- Proximity impacts will be mitigated to a condition equivalent to, or better than, that which would occur if the project were not built, as determined after consultation with the official(s) with jurisdiction;
- Change in accessibility will not substantially diminish the utilization of the Section 4(f) property; or
- Vibration levels from project construction activities are mitigated, through advance planning and monitoring of the activities, to levels that do not cause a substantial impairment of protected activities, features, or attributes of the Section 4(f) property.

The following exception for archaeological sites provided by 23 CFR 774.13(b) states, "(b) Archeological sites that are on or eligible for the National Register when: (1) The Administration concludes that the archeological resource is important chiefly because of what can be learned by data recovery and has minimal value for preservation in place. This exception applies both to situations where data recovery is undertaken and where the Administration decides, with agreement of the official(s) with jurisdiction, not to recover the resource; and (2) The official(s) with jurisdiction over the Section 4(f) resource have been consulted and have not objected to the Administration finding in paragraph (b)(1) of this section."

Existing Conditions

For historic resources, only those that are listed, or are eligible for listing on the NRHP are afforded Section 4(f) protection. Historic properties are discussed in the Historical, architectural, archeological, and cultural resources chapter. Historic Section 4(f) properties are listed below. Unevaluated resources are also included, as they may be found to be eligible in the future. Section 106 evaluation should be completed for all in-period resources.

Table 4.9 presents historic Section 4(f) resources identified from the Historical, architectural, archeological, and cultural resources chapter. These, and any other newly identified historic properties would need to be evaluated for use.

Table 4.9 - Historic or unevaluated Section 4(f) resources at MYF

Primary (P-37-)	TRINOMIAL (CA-SDI-)	Description	Significance Status
Built Environment			
023980	-	Corrugated, metal hangar with a gable roof and no windows	Not evaluated
023981	-	Off-white, airplane hangar with the name "Spiders Aircraft" over the hanger door.	Not evaluated
023982	-	Large, off-white, quonset hut/airplane hangar with a rectangular façade on the west side	Not evaluated
Archaeological Sites			
None			

Sources: Pigniolo, Andrew and Stephanie Murray. 2001. Cultural Resources Survey and Constraints Study for the Montgomery Field Airport Master Plan Project, City of San Diego, California; Shutt Moen Associates. 2003. Environmental Constraints Analysis/Initial Study for the Montgomery Field Airport Master Plan; Zepeda-Herman, Carmen. 2008. Montgomery Field Cultural Constraints Survey; HELIX (2017)

Non-historic Section 4(f) properties

Cabrillo Heights Park and Wegeforth Elementary Joint Use Park are located south of Montgomery-Gibbs Executive Airport, across Aero Drive and past industrial and residential developments. Without physical property take, such resources would need to be evaluated for constructive use, such as noise impacts., but their setting makes it unlikely proximity impacts would create "substantial impairment" necessary to create constructive use.

Summary and Recommendations

Impacts to historic properties should be avoided where possible. When not possible, Section 4(f) regulations demand "all possible planning to minimize harm." If no alternative avoids a use (greater than *de minimis)*, then a least overall harm analysis must be completed. Both airports have non-historic Section 4(f) resources near them, and proximity impacts, such as noise, vibration and visual impacts should be considered when evaluating proposed projects.

Hazardous Materials, Pollution Prevention, and Solid Waste

Hazardous materials, solid waste, and pollution prevention includes an evaluation of the following:

- Waste streams likely to be generated by the project; potential for waste to impact environmental resources, and the impacts on waste handling and disposal facilities that would likely receive the waste;
- Potential hazardous materials that could be used during construction and operation of a project, and applicable pollution prevention procedures;
- Potential to encounter existing hazardous materials at contaminated sites during construction, operation, and decommissioning of a project; and
- Potential to interfere with any ongoing remediation of existing contaminated sites at the proposed project site or in the immediate vicinity of a project site

Regulatory Setting

While there are numerous statutes, regulations, Executive Orders, and other requirements related to Hazardous Materials, Solid Waste, and Pollution Prevention, FAA's Order 1050.1F identifies the Resource Conservation and Recovery Act (RCRA) (40 CFR 239–282) and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) (42 United States Code [USC] 103) as the statutes of greatest importance when proposing actions to construct and operate facilities. Several of the other Acts of relevance are also outlined below, although this list is not definitive.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)

CERCLA provides for consultation with natural resources trustees and cleanup of any release of a hazardous substance (excluding petroleum) into the environment. The Act enabled the creation of the National Priority List (NPL), a list of sites with known releases or threatened releases of hazardous substances used to guide the EPA in determining which sites warrant further investigation.

Resource Conservation and Recovery Act (RCRA)

RCRA governs the generation, treatment, storage, and disposal of hazardous wastes and establishes guidelines for hazardous waste and non-hazardous solid waste management activities.

Emergency Planning and Community Right to Know Act (EPCRA)

EPCRA requires hazardous chemical emergency planning by federal, state, and local governments, Indian tribes, and industries. The Act requires industry to report on the storage, use, and releases of hazardous chemicals.

Pollution Prevention Act

This Act requires pollution prevention and source reduction control so that potential waste would have less effect on the environment while in use and after disposal.

Toxic Substances Control Act

This Act enables the EPA to regulate the production, importation, use, and disposal of chemicals defined as toxic, including lead, radon, asbestos, and polychlorinated biphenyls (PCBs), that have the potential to cause unreasonable risk of injury to public health or the environment.

Executive Order 13514, Federal Leadership in Environmental, Energy, and Economic Performance

Requires federal agencies to make sustainability a priority in agency operations. The EO calls for specific management strategies to improve sustainability including minimizing the acquisition, use, and disposal of toxic and hazardous materials and sets targets for achieving diversion for non-hazardous solid waste and construction and demolition materials and debris.

Existing Conditions

Hazardous materials are commonly stored and used by a variety of businesses and are commonly encountered during construction activities. Hazardous materials typically require special handling, reuse, and disposal because of their potential to harm human health and the environment. The California Health and Safety Code (HSC) defines a hazardous material as: "Any material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment. 'Hazardous materials' include, but are not limited to, hazardous substances, hazardous waste, and any material that a handler or the administering agency has a reasonable basis for believing that it would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment." (HSC Section 25501).

As of October 2017, an environmental data report (such as one issued by EDR) has not been obtained. As such, the information in this section is from publicly available sources.

Sites with Known Hazardous Materials Issues

A variety of government data sources are available to identify sites that may have been subject to a release of hazardous substances or that may have supported a use that could have resulted in a hazardous condition on site. Listed below are some key sources of data that identify potential environmental conditions and historical uses that may represent a hazardous condition:

- Hazardous Waste and Substances sites from California Environmental Protection Agency Department of Toxic Substances Control (DTSC) *EnviroStor database*.
- Solid waste disposal sites identified by State Water Resources Control Board (SWRCB) with waste constituents above hazardous waste levels outside the waste management unit.
- Hazardous waste facilities subject to corrective action pursuant to HSC Section 25187.5, identified by DTSC.
- Active and closed solid waste sites (*Solid Waste Information System*-SWIS database) maintained by CalRecycle.
- Hazardous Materials Establishment Listing maintained by the County of San Diego.
- The County of San Diego maintains the *Site Assessment and Mitigation (SAM) Case Listing* of contaminated sites that have previously or are currently undergoing environmental investigations and/or remedial actions.
- *Resource Conservation and Recovery Information System*, a database of Resource Conservation

Recovery Act facilities that is maintained by the Environmental Protection Agency.

- The U.S. Army Corps of Engineers (USACE), 911 Wilshire Boulevard, Los Angeles, California, 90017, (213) 452-3908, maintains a list of *Formerly Used Defense Sites* (FUDS).
- The DTSC School Property Evaluation and Cleanup Division is responsible for assessing, investigating and cleaning up proposed school sites. A list is maintained by DTSC of school properties with environmental assessments and the findings
- *GeoTracker*, the SWRCB database system identifies regulatory data for the following types of sites:
    - Leaking Underground Storage Tanks (LUST) cleanup sites;
    - Cleanup Program Sites (CPS; also known as Site Cleanups [SC] and formerly known as Spills, Leaks, Investigations, and Cleanups [SLIC] sites);
    - Military sites (consisting of: Military UST sites; Military Privatized sites; and Military Cleanup sites [formerly known as DoD non-UST]);
    - Land Disposal sites (Landfills);
    - Permitted Underground Storage Tanks (UST) facilities;
    - Waste Discharge Requirement (WDR) sites;
    - Agricultural Waivers Program (Irrigated Lands Regulatory Program, ILRP) sites.
- The Environmental Protection Agency (EPA) maintains information on some hazardous waste sites, safe drinking water, hazardous waste generators and disposal operations, and toxic releases.

There is only one National Priorities List (NPL) site in the County of San Diego; Camp Pendleton Marine Corps Base, Camp Pendleton, CA. Thus, there are no records in the vicinity of the Airport.

There are no records of Indian Country LUST in the vicinity of the Airport.

California Environmental Protection Agency Department of Toxic Substances Control EnviroStor Database

The site types included within the DTSC *EnviroStor* database are federal superfund sites (national priorities list), state response, voluntary cleanup, school cleanup, corrective action, evaluation, and tiered California permit sites. Information includes site name, site type, status, address, any restricted use (recorded deed restrictions), past use(s) that caused contamination, potential contaminants of concern, potential environmental media affected, site history, as well as planned and completed activities.

GeoTracker Database

The *GeoTracker* database is a geographic information system that provides online access to environmental data including underground fuel tanks, fuel pipelines and public drinking water supplies. *GeoTracker* contains information about leaking underground storage tanks (LUST) and can identify and display LUST sites within various distances of wells. This provides users with the ability to assess potential threats to their drinking water sources. *GeoTracker* also has information and data on non-LUST cleanup programs, including Spills-Leaks-Investigations-Cleanups sites, Department of Defense Sites, and Land Disposal programs.

Solid Waste Information System Database

The Solid Waste Information database contains information on solid waste facilities, operations, and disposal sites throughout the State of California. The types of facilities found in this database include landfills, closed disposal sites, transfer stations, materials recovery facilities, composting sites, transformation facilities, waste tire sites, and construction, demolition and inert debris facilities and operations. For each facility, the database contains information about location, owner, operator,

facility type, regulatory and operational status, authorized waste types, local enforcement agency and inspection and enforcement records.

County of San Diego Site Assessment and Mitigation Program Case Listing

The County of San Diego SAM Program, within the Land and Water Quality Division of the County Department of Environmental Health, has a primary purpose to protect human health, water resources, and the environment within San Diego County by providing oversight of assessments and cleanups in accordance with the California HSC and the CCR. The SAM Voluntary Assistance Program also provides staff consultation, project oversight, and technical or environmental report evaluation and concurrence (when appropriate) on projects pertaining to properties contaminated with hazardous substances. The County Department of Environmental Health maintains the SAM Program list of contaminated sites that have previously or are currently undergoing environmental investigations and/or remedial actions.

The SAM Program covers all of San Diego County and includes remediation sites of all sizes. The SAM case listing is revised and updated regularly and the number of sites on the list is continually changing, but may contain upwards of 5,000 cases at one time. There is some overlap with the information in other regulatory databases; however, the list also contains sites that often are not covered by some of the larger regulatory databases. If a project is submitted for discretionary review and is located on a site found on the SAM list, the project's status must be determined and any ongoing remediation requirements coordinated with the County Department of Environmental Health SAM project manager. All SAM sites are found and listed in the GeoTracker database.

Formerly Used Defense Sites Listing

The USACE maintains a list of FUDS within San Diego County. FUDS are real properties that were under the jurisdiction of the Secretary of Defense and owned by, leased by, or otherwise possessed by the United States. FUDS are located throughout the United States and in many cases the ownership of these properties have been transferred to private individuals, corporations, State and local governments, federal agencies, and tribal governments. FUDS include but are not limited to sites involving hazardous, toxic and radioactive waste; military munitions including munitions constituents; containerized hazardous, toxic and radioactive waste; building demolition and debris removal; and potentially responsible party sites (government shares burden with private entity).

There are approximately 20 FUDS in San Diego County. Many FUDS have potential hazardous waste contamination problems such as disposal areas and LUST. Other FUDS utilized practice rounds for training, and some sites used live munitions and explosives, known collectively as ordnance and explosives. The live munitions that were fired but did not detonate are known as unexploded ordnance. The unexploded ordnance that remain on FUDS properties today pose the greatest safety hazard to the public, if they are disturbed. Sites are ranked on a one to four scale, one being at the most risk for and increased hazard to the public and environment. Many FUDS sites in San Diego County are under investigation by the USACE to identify and remediate potential hazards.

Sites with Potential Hazardous Materials Issues

A variety of historical land uses and conditions would potentially result in site contamination, representing potential hazards to humans and the environment when new land uses are proposed on those lands. Examples of historic land uses that have the potential to result in current site contamination include burn dump sites, landfills, formerly used defense sites, agriculture, and petroleum storage.

Airport hazards

An ALUCP is a plan that guides property owners and local jurisdictions in determining what types of proposed new land uses are appropriate around airports. They are intended to protect the safety of people, property and aircraft on the ground and in the air in the vicinity of the airport. They also protect airports from encroachment by new incompatible land uses that could restrict airport operations. ALUCPs are based on a defined area around an airport known as the Airport Impact Areas (AIA). AIA are established by factors including airport size, operations, configuration, as well as the safety, airspace protection, noise, and overflight impacts on the land surrounding an airport. It is important to note that ALUCP do not affect existing land uses. Structure replacement and infill development are generally permitted under ALUCP, in accordance with policies established by the San Diego County Regional Airport Authority and the FAA.

Due to operations as airports, there may be hazardous materials stored on site, along with petroleum/aviation fuel and solvents, waste oil and fuel, lubricants, cleaners, paints, compressed gasses, alcohols, peroxides, caustics, and foams. Additionally, transmission and hydraulic fluids could be present. Hazardous materials, will be handled according to applicable federal, state and local regulations to prevent their release to the environment through spill or other release. Hazardous waste generated at either airport would be removed by licensed waste haulers and transported for treatment and disposal, or recycling at an off-site licensed facility.

Fire Hazard Potential in the County of San Diego

California Department of Forestry and Fire Protection (CAL FIRE) has mapped areas of significant fire hazards in the County through their Fire and Resource Assessment Program. These maps place areas of the County into different Fire Hazard Severity Zones based upon fuels, terrain, weather, and other relevant factors. The zones are divided into three levels of fire hazard severity in State Responsibility Areas (SRA): Moderate, High and Very High; and Very High Fire Hazard Severity Zones (VHFHSZ) or non-VHFHSZ in Local Responsibility Area (such as the City of San Diego).

Airport Hazards

According to the SWRB's *GeoTracker*, there are 134 records within one mile of the approximate center point of Montgomery-Gibbs Executive Airport for: LUST Cleanup Sites; Cleanup Program Sites; Department of Toxic Substances Control (DTSC) Cleanup Sites; Permitted USTs; Military USTs; and a DTSC Hazardous Waste Sites, adjacent to the site (non-operating).

There are 13 sites listed on the *EnviroStor Database* within 1 mile of the approximate center point of the Airport.

According to CalRecycle's *Solid Waste Information System* (SWIS), the Airport site lies on the now closed Montgomery Demolition Landfill. There are no other Solid Waste Disposal Sites within one mile, although Miramar Landfill is just outside this one-mile radius from the Airport's perimeter fence.

According to the USACE *FUDS database*, there are no FUDS listed within one mile of the approximate center point of the Airport.

According to CAL FIRE, the Airport is not situated in a Very High Fire Hazard Severity Zones, nor in an SRA Moderate, High or Very High area.

The EPA's '*My Environment Map Viewer*' indicates there are 95 Hazardous Waste (RCRA Info) sites, 14 Toxic Releases to Land Inventory sites, and 16 Biennial Reporting sites in the vicinity of the Airport. There are no Emergency Incidents, Superfund Sites or Brownfield Properties.

Summary and Recommendations

Due to the potential presence of hazardous sources, further consideration of Hazardous Materials, Pollution Prevention, and Solid Waste is recommended during the next stage of Master Plan development and environmental assessment. It is likely that land at the Airport is impacted to a degree by a range of contaminants. Where the potential for encountering contamination is suspected, avoidance or identification of mitigation measures can be implemented within reason, when possible. Environmental contaminants can differ from site to site and are most likely to be encountered during ground-disturbing activities. The most fundamental management for hazardous materials is to avoid contaminated sites, which often is not feasible.

The Airport Master Plan will not directly generate hazardous or solid wastes, and these impacts may be exempt from further assessment as project-specific environmental review would be necessary for any project that directly produces waste or has the likelihood of creating pollution. However, since the master plan would allow development of new facilities and introduce sensitive receptors (construction workers and human occupants once construction is complete), to presently undisturbed areas, the impact associated with this is potentially significant and further assessment will be needed. A site specific Environmental Data Report should be the initial step in identification of hazardous sources proximate to the site and may negate the need for further assessment once complete. A hazardous materials assessment, such as a Phase 1 Environmental Site Assessment, typically would be needed as part of future project development. The purpose for conducting a more detailed hazardous material assessment is to provide the information needed to plan for known and potential hazardous materials and contaminated sites.

Historical, architectural, archeological, and cultural resources

This section describes the existing cultural resource conditions at the Airport. Baseline cultural resources information was reviewed and compiled from sources, including:

- Resource Management Plan for Montgomery Field Airport (P&D Environmental 1998);
- Cultural Resources Survey and Constraints Study for the Montgomery Field Airport Master Plan Project (Pigniolo and Murray 2001);
- Environmental Constraints Analysis/Initial Study for the Montgomery Field Airport Master Plan (Shutt Moen Associates 2003); and
- Montgomery Field Cultural Constraints Survey (Zepeda-Herman 2008);

Site records on file at the South Coastal Information Center were also reviewed. A cultural resources field survey was not conducted as part of this baseline data collection effort at either site.

Regulatory Setting

Cultural resources are defined as buildings, sites, structures, or objects, each of which may have historical, architectural, archaeological, cultural, and/or scientific importance. Significant resources are those resources which have been found eligible to the *California Register of Historical Resources* (CRHR) and *National Register of Historic Places* (NRHP), as applicable. California state law discusses significant cultural resources as "historical resources," whereas federal law uses the terms "historic properties."

Proposed actions at the Airport would be subject to FAA review under NEPA pursuant to the guidance provided in FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures* and FAA Order 5050.4B, *NEPA Implementing Instructions for Airport Actions*. NEPA regulations require Federal agencies to consider whether an action may "significantly affect the quality of the human environment," including unique characteristics of the geographic area, such as proximity to historic or cultural

resources (40 CFR 1508.27(b)(3)). Applicable Federal regulations regarding cultural resources consist of the National Historic Preservation Act (NHPA) and its implementing regulations (16 United States Code 470 et seq., 36 CFR Part 800). Section 106 of the NHPA requires Federal agencies to take into account the effects of their undertakings on NRHP-eligible historic properties. To be eligible for the NRHP, a historic property must be significant under one or more of the following four criteria:

- that are associated with events that have made a significant contribution to the broad patterns of our history;
- that are associated with the lives of persons significant in our past;
- that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; and/or
- that have yielded or may be likely to yield, information important in prehistory or history.

The California Environmental Quality Act (CEQA), Public Resources Code 21084.1 and CEQA Guidelines, California Code of Regulations Title 14 Section 15064.5 defines a historical resource as:

- A resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the CRHR (Public Resources Code §5024.1, Title 14 California Code of Regulations [CCR], Section 4850 et seq.).

- A resource included in a local register of historical resources, as defined in Section 5020.1(k) of the Public Resources Code or identified as significant in an historical resource survey meeting the requirements of section 5024.1(g) of the Public Resources Code, shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.

- Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be an historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing on the CRHR (Public Resources Code §5024.1, Title 14, Section 4852) including the following:

    - Is associated with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States;
    - Is associated with the lives of persons important in our past;
    - Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
    - Has yielded, or may be likely to yield, information important in prehistory or history.

- The fact that a resource is not listed in or determined eligible for listing in the California Register of Historical Resources, not included in a local register of historical resources (pursuant to section 5020.1(k) of the Public Resources Code), or identified in an historical

resources survey (meeting the criteria in section 5024.1(g) of the Public Resources Code) does not preclude a lead agency from determining that the resource may be an historical resource as defined in Public Resources Code Section 5020.1(j) or 5024.1.

All resources that are eligible for listing in the NRHP or CRHR must have integrity, which is the authenticity of a historical resource's physical identity evidenced by the survival of characteristics that existed during the resource's period of significance. Resources, therefore, must retain enough of their historic character or appearance to be recognizable as historical resources and to convey the reasons for their significance. Integrity is evaluated with regard to the retention of location, design, setting, materials, workmanship, feeling, and association. In an archaeological deposit, integrity is assessed with reference to the preservation of material constituents and their culturally and historically meaningful spatial relationships. A resource must also be judged with reference to the particular criteria under which it is proposed for nomination.

California State Assembly Bill 52 (AB 52) revised PRC Section 21074 to include Tribal Cultural Resources as an area of CEQA environmental impact analysis. Further, per new PRC Section 21080.3, a CEQA lead agency must consult with any California Native American tribe that requests consultation and that is traditionally and culturally affiliated with the geographic area of a proposed project to identify resources of cultural or spiritual value to the tribe, even if such resources are already eligible as historical resources as a result of cultural resources studies.

The Native American Graves Protection and Repatriation Act (NAGPRA)

This Act describes the rights of Native American lineal descendants, Indian tribes, and Native Hawaiian organizations with respect to the treatment, repatriation, and disposition of Native American human remains, funerary objects, sacred objects, and objects of cultural patrimony, referred to collectively in the statute as cultural item.

City of San Diego Historical Resources Guidelines

The purpose and intent of the City's Historical Resources Guidelines (HRG), located in the City's Land Development Manual (City of San Diego 2001) is to protect, preserve and, where damaged, restore the historical resources of San Diego. The HRG states that if a project will potentially impact a resource, the resource's significance must be determined, even if it is not listed in or previously considered eligible for the California Register or a local register (Section II.D.5).

In order to be designated as a City of San Diego historically significant site, one or more of the following criteria must be met:

- Exemplifies or reflects special elements of the City's, a community's or a neighborhood's historical, archaeological, cultural, social, economic, political, aesthetic, engineering, landscaping or architectural development.
- Is identified with persons or events significant in local, state or national history.
- Embodies distinctive characteristics of a style, type, period or method of construction or is a valuable example of the use of indigenous materials or craftsmanship.
- Is representative of the notable work of a master builder, designer, architect, engineer, landscape architect, interior designer, artist or craftsman.
- Is listed or has been determined eligible by the National Park Service for listing on the National

Register of Historic Places or is listed or has been determined eligible by the California Office of Historic Preservation (link is external) for listing on the California Register of Historical Resources.

- Is a finite group of resources related to one another in a clearly distinguishable way or is a geographically definable area or neighborhood containing improvements which have a special character, historical interest or aesthetic value or which represent one or more architectural periods or styles in the history and development of the City.

Properties or sites are designated to the City's Register of Designated Historical Resources by the City's Historical Resources Board (HRB) at a publicly noticed hearing.

Existing Conditions

Cultural Setting

Prehistory

The earliest well-documented sites in the San Diego area belong to the San Dieguito Tradition, dating to over 9,000 years ago (Warren 1967; Warren et al. 1998). The San Dieguito Tradition is thought by most researchers to have an emphasis on big game hunting and coastal resources. Diagnostic material culture associated with the San Dieguito complex includes scrapers, scraper planes, choppers, large blades, and large projectile points.

The San Dieguito complex is followed by the Archaic Period, dating from at least 7,000 years ago. The local cultural manifestation of the Archaic period is called the La Jollan complex along the southern coastal region and brings a shift toward a more generalized economy and an increased emphasis on seed resources, small game, and shellfish. Sites dating to the Archaic Period are numerous along the coast, near-coastal valleys, and around estuaries. The La Jolla complex tool assemblage is dominated by rough cobble tools, especially choppers and scrapers, but also includes manos and metates, biface points, and bone tools. Sites within the La Jolla complex typically include shell middens, terrestrial and marine mammal remains, beads, and flexed burials.

While there has been considerable debate about whether San Dieguito and La Jollan patterns might represent the same people using different environments and subsistence techniques, or whether they are separate cultural patterns (e.g., Bull 1983; Ezell 1987; Gallegos 1987; Warren et al. 1998), abrupt shifts in subsistence and new tool technologies occur at the onset of the Late Prehistoric Period, approximately 1,300-1,500 years ago. Within the City of San Diego, the Late Prehistoric period is represented by the Cuyamaca complex (Yuman forebears of the Kumeyaay) and is characterized by higher population densities and intensification of social, political, and technological systems. Elements of the Cuyamaca complex include small, pressure-flaked projectile points (Desert Side-notched and Cottonwood Triangular series); milling implements (manos, metates, mortars, and pestles); Tizon Brownware pottery; various cobble-based tools (e.g., scrapers, choppers, and hammerstones); arrow shaft straighteners; pendants; Olivella shell beads; and pictographs; and cremations. Subsistence is thought to be focused on the utilization of acorns and grass seeds, with small game serving as a primary protein resource and big game as a secondary resource. Fish and shellfish were also secondary resources, except immediately adjacent to the coast, where they assumed primary importance (Bean and Shipek 1978; Luomala 1978). The settlement system is characterized by seasonal villages where people used a central-based collecting subsistence strategy.

Ethnohistoric Period

The Montgomery-Gibbs Executive Airport area is within the traditional territory of the Kumeyaay people, also known as Ipai, Tipai, or Diegueño (named for Mission San Diego de Alcala). At the time of Spanish contact, Yuman-speaking Kumeyaay bands occupied southern San Diego and southwestern Imperial counties and northern Baja California. The Kumeyaay lived in semi-sedentary villages, or rancherias, with some rancherias containing more than one clan. Kumeyaay villages were located in river valleys with access to water and boulder outcrops and along the shoreline of coastal estuaries (Kroeber 1925; Luomala 1978).

History

Spanish Period

While Juan Rodriguez Cabrillo visited San Diego briefly in 1542, the beginning of the historic period in the San Diego area is generally given as 1769, the year that the Royal Presidio of San Diego was founded on a hill overlooking the San Diego River. A small pueblo, now known as Old Town San Diego, developed below the presidio. The Mission San Diego de Alcalá was constructed in its current location five years later. The Spanish period was characterized by religious and military institutions bringing Spanish culture to the area and attempting to convert the Native American population to Christianity. The economy of Alta California during this period was based on cattle ranching at the missions; a minor amount of agriculture and commerce took place in and around San Diego.

Mexican Period

Mexico, including Alta California, gained its independence from Spain in 1821, but Spanish culture and influence remained as the missions continued to operate as they had in the past, and laws governing the distribution of land were also retained for a period of time. Following secularization of the missions in 1834, large ranchos were granted to prominent and well-connected individuals and the society made a transition from one dominated by the church and the military to a more civilian population, with people living on ranchos or in pueblos. With numerous new ranchos, cattle ranching expanded and prevailed over agricultural activities. These ranches put new pressures on California's native populations, as grants were made for inland areas still occupied by the Kumeyaay, forcing them to acculturate or relocate farther into the back country.

American Period

The Mexican period ended when Mexico ceded California to the United States after the Mexican-American War (1846–1848), which concluded with the Treaty of Guadalupe Hidalgo. A great influx of settlers to California and the San Diego region occurred during the American Period, resulting from several factors including the discovery of gold in the state in 1849, the end of the Civil War, the availability of free land through passage of the Homestead Act, and later, the importance of San Diego County as an agricultural area supported by roads, irrigation systems, and connecting railways. The increase in American and European populations quickly overwhelmed many of the Spanish and Mexican cultural traditions.

The 1880s saw "boom and bust" cycles that brought thousands of people to the area of San Diego County. By the end of the decade, many had left, although some remained to form the foundations of small communities based on dry farming, orchards, dairies, and livestock ranching. During the late 19th and early 20th centuries, rural areas of San Diego County developed small agricultural communities centered on one-room schoolhouses.

By the 1890s, the City entered a time of steady growth and subdivisions such as Golden Hill, Sherman Heights, Logan Heights, Banker's Hill, and University Heights were developed. As the City continued to grow in the early 20th century, the downtown's residential character changed. Streetcars and the introduction of the automobile allowed people to live farther from their downtown jobs and new

suburbs were developed. The influence of military development, beginning in 1916 and 1917 during World War I, resulted in substantial development in infrastructure and industry to support the military and accommodate soldiers, sailors, and defense industry workers. In the post-World War II years, San Diego grew significantly, with new jobs created in the aircraft industry, shipbuilding, fishing, and other enterprises.

Native American Contact Program

A Native American Contact Program has been initiated with local tribes and tribal representatives to identify tribal cultural resources considered significant to the local Native American community. The Native American Heritage Commission (NAHC) was contacted for a search of their Sacred Lands Files on August 22, 2017. A response was received from the NAHC on August 28, 2017; a search of their Sacred Lands File was completed with negative results for the Montgomery-Gibbs Executive Airport area. Tribal entities and other interested parties identified by the NAHC were contacted regarding the project on August 30, 2017 (**Table 4.10**). As of October, 12, 2017, one response has been received but not related to MYF. Tribal entities and other interested parties requested that all applicable federal and state laws be followed and that they are immediately contacted on changes or inadvertent discoveries.

Table 4.10 - Native American Contact Program Communication

Affiliation	Name/Title	Date	Response
Native American Heritage Commission (NAHC)	-	8/22/2017 8/28/2017	SLF search request sent via email Received results of Sacred Lands search (negative) and Native American contact list via email
Barona Band of Mission Indians	Edwin Romero, Chairperson	8/30/2017	Letter sent
Campo Band of Diegueño Mission Indians	Ralph Goff, Chairperson	8/30/2017	Letter sent
Ewiiaapaayp Band of Kumeyaay Indians	Robert Pinto, Sr., Chairperson Michael Garcia, Vice Chairperson	8/30/2017	Letter sent
Iipay Nation of Santa Ysabel	Virgil Perez, Chairperson Clint Linton, Director of Cultural Resources	8/30/2017	Letter sent
Inaja Band of Mission Indians	Rebecca Osuna, Chairperson	8/30/2017	Letter sent
Jamul Indian Village of California	Erica Pinto, Chairperson	8/30/2017	Letter sent
Kwaaymii Laguna Band of Mission Indians	Carmen Lucas	8/30/2017	Letter sent
La Posta Band of Diegueño Mission Indians	Javaughn Miller, Tribal Administrator Gwendolyn Parada, Chairperson	8/30/2017	Letter sent

Manzanita Band of Kumeyaay Nation	Angela Elliott Santos, Chairperson Nick Elliott, Cultural Resources Coordinator	8/30/2017	Letter sent
Mesa Grande Band of Diegueño Mission Indians	Virgil Oyos, Chairperson	8/30/2017	Letter sent
Mesa Grande Band of Mission Indians	Mario Morales, Cultural Resources Representative	8/30/2017	Letter sent
San Pasqual Band of Diegueño Mission Indians	Allen E. Lawson, Chairperson John Flores, Environmental Coordinator	8/30/2017	Letter sent
Sycuan Band of the Kumeyaay Nation	Cody J. Martinez, Chairperson Lisa Haws, Cultural Resources Manager	8/30/2017	Letter sent
Viejas Band of Mission Indians of the Viejas Reservation	Robert Welch, Chairperson Julie Hagen, Tribal Historic Office	8/30/2017	Letter sent; response received from Ray Teran, Resource Management on 9/7/2017

Cultural Resources within the Airport Boundary

The results of the archival research and literature review indicated that four cultural resources have been recorded within the boundaries of Montgomery-Gibbs Executive Airport (see **Table 4.11**). The resources consist of three buildings and one prehistoric isolate.

Table 4.11 - Cultural Resources within MYF

Primary (P-37-)	TRINOMIAL (CA-SDI-)	Description	Significance Status
Built Environment			
023980	-	Corrugated, metal hangar with a gable roof and no windows	Not evaluated
023981	-	Off-white, airplane hangar with the name "Spiders Aircraft" over the hanger door.	Not evaluated
023982	-	Large, off-white, quonset hut/airplane hangar with a rectangular façade on the west side	Not evaluated
Archaeological Sites			
None			
Archaeological Isolates			
023983	-	Two prehistoric lithic flakes	Not eligible for NRHP, CRHR, or local register

Prehistoric Resources

The prehistoric resource documented within the boundaries of the Airport is isolate (P-37-023983) consisting of two secondary flakes. The flakes most likely represent a small lithic procurement area (Pigniolo and Murray 2001).

One additional resource is on file at the Museum of Man (SDH-W-155). This "site" was recorded by Malcom Rogers as the entirety of the Kearny Mesa region, including Linda Vista, Clairemont, University City, Kearny Mesa, and Miramar area. The resource is described as dispersed highland winter camps with scattered artifacts and cobble hearths; specific loci were not mapped.

Historic-Era Resources

The historic-era resources within the boundaries of the Airport consist of three airplane hangars P-37-023980, P-37-023981, and P-37-023982). While the exact date of construction for the structures is unknown, they appear on the 1953 La Jolla USGS topographic map (Pigniolo and Murray 2001). The hangars are associated with the original Gibbs Field and were likely built between 1940 and 1946; as mentioned above, by 1946 several airplane hangars were noted as existing at the field (Pourade 1977).

Figure 4.5 Cultural resources near MYF - CONFIDENTIAL

This figure is confidential and not for public viewing.

Environmental documents must not include information about the location of an archeological site or sacred lands or any other information that is exempt from public disclosure pursuant to the Public Records Act. Cal. Code Regs. § 15120 (d); see also Clover Valley Foundation v. City of Rocklin, 197 Cal. App. 4th 200, 220 (2011).7 Native American graves, cemeteries, and sacred places and records of Native American places, features, and objects are also exempt from disclosure. Pub. Res. Code, §§ 5097.9, 5097.993. Confidential cultural resource inventories or reports generated for environmental documents should be maintained by the lead agency under separate cover and shall not be available to the public.

Summary and Recommendations

Prior to any future projects that could directly affect an archaeological resource, steps should be taken to determine (1) the presence of archaeological resources and (2) the appropriate mitigation for any significant resources that may be impacted. According the City's HRG, for Purposes of Environmental Review (CEQA), cultural resource surveys are required under the following circumstances:

Historic property (built environment) surveys are required for properties within a project's Area of Potential Effect (APE) which are 45 years of age or older and which have integrity of setting, location, design, materials, workmanship, feeling, and association. In rare instances, properties which have not yet achieved 45 years of age may be historically significant. Among them are: important International Style structures; industrial or military structures significant in Cold War history; buildings, structures, and objects representing significant technological or scientific advances; the works of architectural masters; and roadside-related architecture from the 1950s and 1960s which is fast disappearing. Such resources must be proven to have exceptional significance in their contribution to recent history, as documented by a preponderance of evidence.

Archaeological surveys are required when development is proposed on previously undeveloped parcels, when a known resource is identified on site or within a one-mile radius, when a previous survey is more than five years old if the potential for resources exists, or based on a site visit by a qualified consultant or knowledgeable City staff.

Montgomery-Gibbs Executive Airport has been categorized into three cultural resource sensitivity levels rated low, moderate, or high. The ratings are based on the archival research, the NAHC Sacred Lands File check, regional environmental factors, and amount of previous disturbance that has occurred.

A low sensitivity rating indicates areas where there is a high level of disturbance or development and few or no previously recorded resources have been documented. Within these areas, the potential for the additional resources to be identified is low. A moderate sensitivity indicates that some previously recorded resources have been identified, and the potential for additional resources to be present would be moderate. Areas identified as high sensitivity indicate areas where significant resources are documented.

The three historic hangars (P-37-23980, P-37-23981, and P-37-23982) have not been evaluated for significance and may be eligible for inclusion in national, state, or local registers; as such, these are considered a moderate sensitivity. The remainder of the airport is low sensitivity. While the entire Kearny Mesa area was noted as containing scattered prehistoric artifacts and cobble hearths, the airport property has been surveyed for cultural resources, and the probability of unrecorded historical resources to be present is minimal (Pigniolo and Murray 2001; Zepeda-Herman 2008). As noted by Pigniolo and Murray (2001):

The potential for additional cultural resources within undeveloped or disturbed areas of MYF is low. If present, they would represent small prehistoric tool making areas or small historic sites and not represent major constituents for development.

Land Use

The compatibility of existing and planned land uses with an aviation or aerospace proposal is usually associated with noise impacts, induced socioeconomic impacts or land uses protected under Section 4(f) of the DOT Act. When assessing land use, the objectives of federal, regional, state, and local (and in the case of a reservation, Indian tribe) land use plans, policies and controls for the area concerned must be considered.

Regulatory Setting

Airport and Airway Improvement Act

Airport Improvement Program funding for an airport development project may not be approved unless the Secretary of Transportation receives satisfactory written assurance that appropriate action, including the adoption of zoning laws, has been or will be taken, to the extent reasonable, to restrict the use of land adjacent to or in the immediate vicinity of the airport to activities and purposes compatible with normal airport operations, including the landing and takeoff of aircraft.

City of San Diego Municipal Code

The San Diego Municipal Code Land Development Code regulates the use and development of land throughout the city of San Diego. *Chapter 06 Article 08 Division 01, Airports* provides rules and regulations governing the conduct of operations at all City– owned or controlled airports. *Chapter 13 Article 2 Division 15, Airport Approach Overlay Zone* provides additional regulatory guidance surrounding the approach path for San Diego International Airport.

City of San Diego General Plan

The policies related to airports within the City of San Diego General Plan (June 2015) are set out below. See Land Use and Community Planning Element, G. Airport Land Use Compatibility (p. LU-34 onwards); Noise Element (NE-3 to NE-9 and D. Aircraft Noise NE-12 onwards); and Mobility Element H Airports (ME45 to ME-49):

LU-G.1. Work with the ALUC to develop policies that are consistent with the state and federal regulations and guidelines, that balance airport land use compatibility goals with other citywide and regional goals, and that emphasize the major airport land use compatibility factors.

LU-G.2. Submit all amendments and updates to the General Plan, community plans, specific plans, airport plans, development regulations and zoning ordinances affected by an airport influence area to the ALUC to ensure that they are consistent with the Airport Land Use Compatibility Plan or have the City Council take steps to overrule the ALUC.

LU-G.3. Submit the General Plan, community plans, and specific plans affected by an airport influence area to the ALUC after the adoption or amendment to an Airport Land Use Compatibility Plan to ensure that they are consistent or have the City Council take steps to overrule the ALUC.

LU-G.4. Submit development projects affected by an airport influence area to the ALUC after the adoption or amendment to an Airport Land Use Compatibility Plan to ensure that they are consistent up until the time that the ALUC has determined the General Plan, community plans, and specific plans consistent with the Airport Land Use Compatibility Plan or have the City Council take steps to overrule the ALUC.

LU-G.5. Implement the height standards used by the FAA as defined by Code of Federal Regulations Title 14, Part 77 through development regulations and zoning ordinances.

LU-G.6. Require that all proposed development projects (ministerial and discretionary actions) notify the FAA in areas where the proposed development meets the notification criteria as defined by Code of Federal Regulation Title 14, Part 77.

- Require that all proposed development projects that are subject to FAA notification requirement provide documentation that FAA has determined that the project is not a Hazard to Air Navigation prior to project approval.

- Require that the Planning Commission and City Council approve any proposed development that the FAA has determined to be a Hazard to Air Navigation once state and ALUC requirements are satisfied.

LU-G.7. Evaluate the siting and expansions of airports, heliports, and helipads/helistops on the basis of aviation and land use need and potential safety and noise impacts on existing and planned surrounding land uses.

LU-G.8. Submit all airport/heliport master plans and development plans to the ALUC prior to City Council adoption.

LU-G.9. Coordinate with the Navy and Marine Corps to ensure that future land use and General Plan community plan, specific plan, development regulations and zoning ordinances amendments are consistent with the Air Installation Compatible Use Zone study for military air installations.

LU-G.10. Encourage civilian and military airport operators, to the extent practical, to:

- Ensure safe airport operations to minimize noise and safety concerns;
- Purchase land within the airport runway protection zone, given available funding sources, to protect airport operations; and
- Obtain avigation easements or deed restrictions from property owners within the airport influence area to prevent air navigation obstructions and increase awareness of aircraft operating overhead.

NE-A.1. Separate excessive noise-generating uses from residential and other noise-sensitive land uses with a sufficient spatial buffer of less sensitive uses.

NE-A.2. Assure the appropriateness of proposed developments relative to existing and future noise levels by consulting the guidelines for noise-compatible land use (shown on Table NE-3) to minimize the effects on noise-sensitive land uses.

NE-A.3. Limit future residential and other noise-sensitive land uses in areas exposed to high levels of noise.

NE-A.4. Require an acoustical study consistent with Acoustical Study Guidelines (Table NE-4) for proposed developments in areas where the existing or future noise level exceeds or would exceed the "compatible" noise level thresholds as indicated on the Land Use - Noise Compatibility Guidelines (Table NE-3), so that noise mitigation measures can be included in the project design to meet the noise guidelines.

NE-A.5. Prepare noise studies to address existing and future noise levels from noise sources that are specific to a community when updating community plans.

NE-D.1. Encourage noise-compatible land use within airport influence areas in accordance with federal and state noise standards and guidelines.

NE-D.2. Limit future residential uses within airport influence areas to the 65 dBA CNEL airport noise contour, except for multiple-unit, mixed-use, and live work residential uses within the San Diego International Airport influence area in areas with existing residential uses and where a community plan and the Airport Land Use Compatibility Plan allow future residential uses.

NE-D.3. Ensure that future multiple-unit, mixed-use, and live work residential uses within the San Diego International Airport influence area that are located greater than the 65 dBA CNEL airport noise contour are located in areas with existing residential uses and where a community plan and Airport Land Use Compatibility Plan allow future residential uses.

- Limit the amount of outdoor areas subject to exposure above the 65 dBA CNEL; and;
- Provide noise attenuation to ensure an interior noise level that does not exceed 45 dBA CNEL.

NE-D.4. Discourage outdoor uses in areas where people could be exposed to prolonged periods of high aircraft noise levels greater than the 65 dBA CNEL airport noise contour.

NE-D.5. Minimize excessive aircraft noise from aircraft operating at Montgomery-Gibbs Executive to surrounding residential areas.

- Implement a noise-monitoring program to assess aircraft noise.
- Implement nighttime aircraft noise limits and a weight limit for aircraft using the airport.

NE-D.6. Encourage civilian and military airport operators, to the extent practical, to monitor aircraft noise, implement noise-reducing operation measures, and promote pilot awareness of where aircraft noise affects noise-sensitive land uses.

NE-D.7. Limit future uses within airport influences areas when the noise policies in the compatibility plans are more restrictive for uses affected by aircraft noise than shown on Table NE-3.

NE-I.1. Require noise attenuation measures to reduce the noise to an acceptable noise level for proposed developments to ensure an acceptable interior noise level, as appropriate, in accordance with California's noise insulation standards (CCR Title 24) and Airport Land Use Compatibly Plans.

NE-I.3. Consider noise attenuation measures and techniques addressed by the Noise Element, as well as other feasible attenuation measures not addressed as potential mitigation measures, to reduce the effect of noise on future residential and other noise-sensitive land uses to an acceptable noise level.

The Noise Element identifies that 'Noise levels from Montgomery-Gibbs Executive Field Airport are not as extensive as the noise levels from SAN and MCAS Miramar. Typically, the smaller general aviation aircraft, both propeller and jet aircraft operate from the Airport. Due to the length of its runways, MYF cannot accommodate all types of general aviation aircraft. Noise-compatible commercial and industrial uses are adjacent to the airport. Aircraft noise affects residential areas in surrounding communities. To minimize the impact on surrounding residential areas, MYF has a noise-monitoring program to assess aircraft noise and regulations, including a nighttime noise limits and a weight limit for aircraft using the airport.

ME-H.2. Participate in the development and implementation of long-range regional plans that address regional commercial air carrier capacity to accommodate forecasted air passenger and cargo demands and the integration of multimodal ground connections to the regional aviation system.

ME-H.3. Provide general aviation facilities at Montgomery-Gibbs Executive Airport in accordance with their respective airport master plans or layout plans, City regulations, and FAA requirements.

a. Accommodate forecasted general aviation demand within the limitations of federal, state, and local funding, user fees, and environmental and regulatory constraints.

b. Seek federal and state funding assistance to develop, implement, and update Airport Master Plans, as needed, for Montgomery-Gibbs Executive Airport to support the forecasted demand for general aviation and public safety operations.

Existing Conditions

Major federal lands within the county, include Camp Pendleton Marine Corps Base, and numerous U.S. Navy facilities adjacent to San Diego Bay (North Island Naval Air Station, Naval Amphibious Base, Naval Station San Diego and Naval Submarine Base).

According to the City of San Diego General Plan, the Airport is designated as Institutional & Public and Semi-Public Facilities land use.

The AIA at the Airport encompasses lands within the cities of San Diego, La Mesa, El Cajon, and Lemon Grove, and portions of unincorporated San Diego County. In addition, the AIA for the Airport covers a portion of MCAS Miramar.

Generally, the character of the area is highly developed in all directions. The Airport is situated in a highly-urbanized area in the southern portion of the Kearny Mesa Community Plan in the City of San Diego. This community is a major industrial and commercial center, with nearby land uses mostly compatible with the Airport. Existing commercial, office, and industrial uses surround the Airport on all sides. Residential land uses exist about one mile southwest of Runway 5 (part of the Clairemont Mesa Community Plan), south of the airport property (part of the Serra Mesa Community Plan), and less than two miles west of the departure end of Runway 28R (part of the Kearny Mesa, Clairemont and Tierrasanta Community Plans). Regarding existing airport area land uses from the runways:

- West (Runway 10R) - State Route 163 freeway (1,000 feet from runway); commercial, industrial and residential;
- East (Runway 28R) - Aero Drive (1,000 feet from runway); industrial, office, federal land to immediate west of Interstate 5;
- North (Runway 23) - Balboa Avenue (800 feet from runway); mainly industrial and commercial; and
- South (Runway 5) - State Route 163 freeway (1,000 feet from runway); primarily residential with scattered open space and industrial.

According to the ALUCP, regarding City of San Diego planned airport area land use:

- North: Commercial, institutional, and industrial
- South: Institutional, industrial, park and recreation and residential
- East: Institutional, industrial, park and recreation, residential and commercial
- West: Residential, commercial, park and recreation and industrial

Further details on the ALUCP for the Airport, including Compatibility Policy Maps for Noise, Safety, Airspace protection, Overflight, AIA, Avigation Easement and Overflight Notification Areas can be found on the San Diego County Regional Airport Authority's website (http://www.san.org/Airport-Projects/Land-Use-Compatibility#118076-alucps).

Existing and Future Noise Exposure Contours
Noise levels in the vicinity of the Airport are expected to increase in the future, primarily due to a projected increase in aircraft operations. In addition, the fleet is expected to shift to a higher proportion of business jets and twin-engine turboprops and a lower proportion of single-engine piston aircraft.

Summary and Recommendations
This master plan update will need to be mindful of existing and planned land use and the associated plans for Noise, Safety, Airspace protection, Airport Impact Areas, Avigation Easement and Overflight Notification Areas and would need to ensure compatibility with the ALUCP for the Airport, along with plans and planned developments in neighboring community plan areas.

A plan indicating ownership of the land surrounding the Airport will also need to be produced.

Noise and noise compatible land use

The Aviation Environmental Design Tool, Version 2c SP2, (AEDT) was used to generate noise contours for existing conditions.

Regulatory Setting

The Control and Abatement of Aircraft Noise and Sonic Boom Act of 1968 and the Noise Control Act of 1972

This Act established regulations to abate noise and authorized the FAA to prescribe standards for the measurement of aircraft noise.

The Noise Control Act of 1972 amended the Control and Abatement of Aircraft Noise Sonic Boom Act of 1968 to add consideration of the protection of public health and welfare and to add the EPA to the rulemaking process for aircraft noise and sonic boom standards.

Aviation Safety and Noise Abatement Act of 1979

The Act (as amended) aids airport operators in the preparation and undertaking of noise compatibility programs, helps to provide assistance to assure continued safety in aviation, and provides assistance to aircraft operators to aid them in complying with noise standards.

Compatible land use essentially means the use of the land is normally compatible with the outdoor noise environment at the location (14 CFR §150.7). Compatible land use analysis considers the effects of noise on special management areas, such as national parks, national wildlife refuges, and other sensitive noise receptors.

Airport and Airway Improvement Act of 1982

This Act authorizes funding for noise mitigation and noise compatibility planning and projects, and establishes certain requirements related to noise-compatible land use for Federally-funded airport development projects.

Airport Noise and Capacity Act of 1990

This Act mandated the phase out of Stage 2 jet aircraft over 75,000 pounds, and establishes requirements regarding airport noise and access restrictions for Stage 2 and 3 aircraft.

Prohibition on Operating Certain Aircraft Weighing 75,000 Pounds or Less Not Complying with Stage 3 Noise Levels [Section 506 of the FAA Modernization and Reform Act of 2012]

After December 31, 2015, a person may not operate a civil subsonic jet airplane with a maximum weight of 75,000 pounds or less unless the Secretary of Transportation finds that the aircraft complies with stage 3 noise levels.

FAA Order 1050.1F: Environmental Impacts: Policies and Procedures

Order 1050.1F provides the most recent FAA for NEPA documentation for an EA which is a requirement to understand the impact of an action (e.g. a change to the operation of the airport). The Order provides guidance that any action (e.g. a change to the operation of an airport, for example) undergo an assessment which compares results of that change against a 'No Action Alternative,' and provides guidelines for what is considered a 'Significant Impact' under FAA guidance. If there is an impact identified, this would trig another round of NEPA documentation and review, called an EIS (Environmental Impact Statement).

Within Order 1050.1F, the determination of an impact for an Environmental Impact Category, of which one is Noise and Noise Compatible Land Use, is reliant on defined significance thresholds. For Noise and Noise Compatible Land Use, the significance threshold that would constitute a Significant Impact is an increase noise levels by 1.5 dB DNL or more for noise sensitive site as defined by Title 14 Code of Federal Regulations Part 150 (14 CFR Part 150)[13] that is currently exposed to a noise level of 65 dB DNL or greater. Categories under this include residential uses, public use like schools, hospitals, nursing homes, and places of worship, and so on. In short, if the No Action case shows a noise sensitive area, like a home (a residential land use), is exposed to a level of 65 dB DN and the Action Case shows that noise sensitive site experiences an increase of 1.5 dB DNL or greater, it is considered a Significant Impact. For example, a home experiences a noise level of 67 dB DNL in the No Action Case and in the Action Case experiences a noise level of 69 db DNL. This is an increase of 2 dB DNL and is by definition a Significant Impact. This is because it is an increase of 2 dB, and therefore is greater than the significance threshold of 1.5 dB DNL within the 65 dB DNL area.

Further, Order 1050.1F defers to Section (f)[14] in consideration of what is defined as a noise sensitive site for consideration beyond the normal scope including, noise sensitive areas within national parks and national wildlife and waterfowl refuges, or historic sites and traditional cultural properties. 14 CFR Part 15 does not consider these noise sensitive sites as it does not include the relevance of the value, enjoyment, or cultural or historical significance of the areas mentioned above. Therefore, special guidance utilized for consideration as the 65 dB DNL does not adequately address the impacts of aircraft noise in areas where ambient noise be much quieter, such as a national park or wildlife refuge. In these cases, the Secretary of Transportation of the United States Government makes a determination of whether or not the Action Case impact versus to No Action Case impact is a *de minimis* impact, meaning not significant impact or if it will be considered a Significant Impact.

13 14 CFR Part 150 Appendix A, Part B, Sec. A150.101(f)4 Table 1 - Land Use Compatibility With Yearly Day-Night Average Sound Levels. https://www.ecfr.gov/cgi-bin/text-idx?SID=f8e6df268e3dad2edb848f61b9a0fb51&mc=true&node=pt14.3.150&rgn=div5

14 49 U.S.C. § 303 was originally enacted as Section 4(f) of the Department of Transportation Act of 1966 and is still commonly referred to as "Section 4(f)".

Existing Conditions

The Airport is located in San Diego County and the City of San Diego, west of California Route 163 (Cabrillo Freeway) and directly south of Balboa Avenue. The airport layout is comprised of two parallel runways and a crosswind runway, Runway 10L/28R, Runway 10R/28L and Runway 5/23, respectively.

A separate Technical Memorandum has been produced to summarize the baseline aircraft noise assumptions, inputs, and results for the Airport Master Plan for calendar year 2017. This can be found in **Appendix O – 2017 Baseline Noise and Air Quality Modeling Assumptions**.

Contour Results

Figure 4.6 presents the 2017 Master Plan CNEL baseline contours and **Table 4.12** presents the residential population and housing impacts at Montgomery-Gibbs Executive Airport.

Table 4.12 - Population and Housing Units within MYF's 2017 Baseline Contour

Contour	Population	Housing Count
CNEL 65-70	0	0
CNEL 70-75	0	0
CNEL >75	0	0

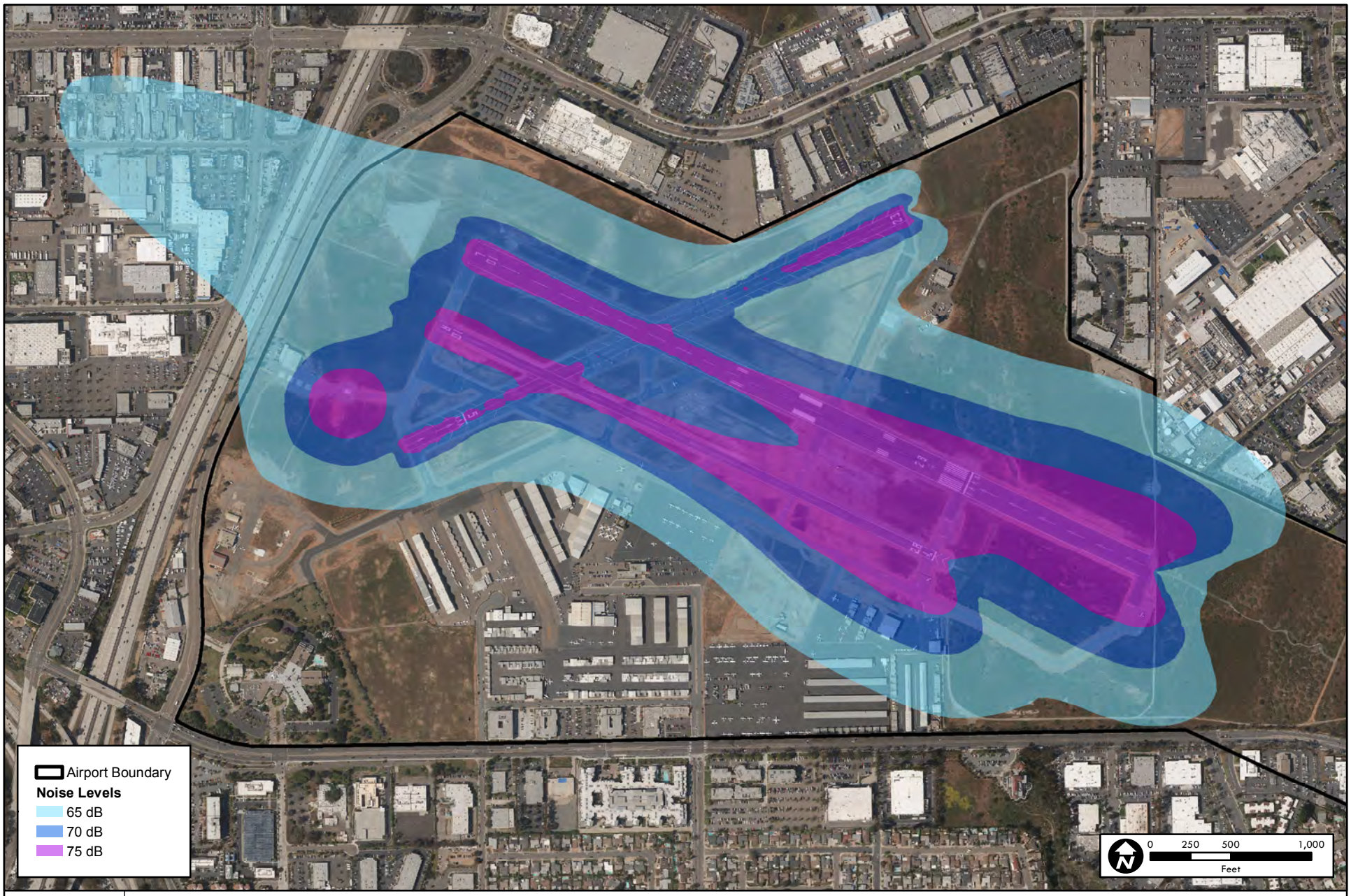


FIGURE 4.6

CNEL Baseline Contour for MYF

Sources: HMMH 2017, SanGIS 2017

100054723 MYF/SDM Master Plans

11/3/2017 BELA7036 C:\Users\bela7036\OneDrive Corp\OneDrive - Atkins Ltd\Documents\GIS\SD Airports Environmental\Fig4_12_CNEL_Baseline_Contour_Montgomery.mxd

Summary and Recommendations

Further assessment of noise sensitive receptors and potential impact to these receptors is required, especially in light of the change to the 65 db CNEL contours. Sensitive receptors include resources such as those identified within the Department of Transportation Section 4(f) chapter, cultural and biological resources, parks and recreational areas, residential dwellings and educational, health, and religious structures. In the context of noise from airplanes and helicopters, noise sensitive areas include such areas within the DNL 65 dB noise contours. The Area Equivalent Method (AEM) may be used to determine if it is possible to screen out aircraft noise. As specified by the FAA's 1050.1F Desk Reference, if AEM calculations indicate that the action would result in less than a 17 percent (approximately a DNL 1 dB) increase in the DNL 65 dB contour area, there would be no significant impact over noise sensitive areas and no further noise analysis would be required. While the AEDT has been used in this instance, which is a more thorough type of screening tool, it is necessary to qualify whether there are impacts to those aforementioned noise sensitive receptors and acoustic survey may assist in quantifying ambient noise levels in the vicinity of the airports.

4.5 Key Resources with No Significant Impact

Climate

Regulatory Setting

Clean Air Act

As per the details in the Air Quality section, the Clean Air Act regulates greenhouse gas (GHG) emissions from on-road surface transportation vehicles and stationary power generation sources.

Executive Order 13514 Federal Leadership in Environmental Energy and Economic Performance; and Executive Order 13653, Preparing the United States for the Impacts of Climate Change

Executive Order 13514 ensured that federal agencies measure, report, and reduce their GHG emissions from direct and indirect activities. It has since been revoked and replaced by Executive Order 13653 to establish direction for federal agencies on how to improve on climate preparedness and reliance strategies.

Existing Conditions

According to the U.S. Department of Transportation's report on U.S. Airport Greenhouse Gas Emissions Inventories, airports that have estimated all sources of GHG emissions at their airports have found that Scope 3 (indirect emissions from aircraft and ground vehicles) contribute the largest share, approximately 80-90 percent of total carbon dioxide equivalents (CO_{2e}), the standard unit of GHGs, while direct Scope 1 and 2 emissions[15] collectively represent 10-20 percent. San Diego International Airport has over 90 percent of Scope 3 emissions, according to the same report.

According to the 2013 San Diego County Greenhouse Gas Inventory, civil aviation, mainly interstate flights from SAN, is the fourth highest emitting category (six percent). There are no details on the GHG emissions at the Airport; however, it is likely that these will be a fraction of the GHGs of SDIA due to the fact there are considerably smaller and less powerful aircraft using the two reliever airports.

The City of San Diego developed its own Climate Action Plan to reduce GHG emissions and achieve long-term resiliency and sustainability. The plan, approved in 2015, includes a goal of reducing GHG emissions by 50 percent by 2035. A major action aimed at meeting this goal is reducing energy consumption in municipal facilities.

Summary and Recommendations

The U.S. Department of Transportation's report on U.S. Airport Greenhouse Gas Emissions Inventories indicates that using the Aviation Environmental Design Tool (AEDT) is a reliable and effective way to estimate aircraft GHG emissions. Since this tool has been used to assess Air Quality emissions, including CO_2 as a GHG, it is therefore proposed that any future GHG assessment will be covered by future air quality analysis.

Sources

Anders, S.J. & Silva-Send, N. 2013. San Diego County Updated Greenhouse Gas Inventory. Available at: http://catcher.sandiego.edu/items/usdlaw/EPIC-GHG-2013.pdf

15 Scope 1 emissions are emissions owned and controlled by the airport operator, such as fuel needed to power the aircraft and airport vehicles and airport facilities. Scope 2 emissions are those emissions from the offsite generation of energy purchased by the airport operator such as purchased electricity.

City of San Diego. 2015. Climate Action Plan. Available at: https://www.sandiego.gov/sites/default/files/final_july_2016_cap.pdf

U.S. Department of Transportation. Volpe Center Report for the FAA Office of Airport Planning. 2016. U.S. Airport Greenhouse Gas Emissions Inventories - State of the Practice and Recommendations for Airport. Available at: https://ntl.bts.gov/lib/58000/58000/58012/Airport_GHG_Inventories.pdf

Visual effects (including light emissions)

Visual effects are associated with the extent to which the proposed action would:

- Produce light emissions that create annoyance or interfere with activities; or
- Contrast with, or detract from, the visual resources and/or the visual character of the existing environment.

Visual effects are broken into two categories:

- Light Emission Effects; and
- Visual Resources and Visual Character

Light emissions

Light emissions refer to the combined light that shines from artificial types of outdoor lighting. With regard to aviation and aerospace actions, these light emissions can entail airfield and apron flood lighting, navigational aids, terminal lighting, parking facility lighting, roadway lighting, safety lighting on launch pads, additional lighting to support nighttime commercial space launches, and light generated from such launches. Glare is also a type of light emission that occurs when light is reflected off a surface (e.g., window glass, solar panels, or reflective building surfaces).

Light emissions can affect human actions such as sleep and the enjoyment of recreation areas. They can create skyglow, which is a background illumination of the night sky that often occurs when light is scattered by water droplets in the form of rain, snow, fog, clouds, or high humidity.

Visual Resources and Visual Character

Visual resources encompass all visible natural features in the landscape, such as mountains, forests, rocks, open water, estuaries, and streams, along with existing human-made structures on the landscape, such as buildings, sites, traditional cultural properties, and other natural or human-made landscape features that are visually important or have unique characteristics. Visual resources may include structures or objects that obscure or block other landscape features.

Visual character refers to the overall visual makeup of the existing environment where the proposed action and alternative(s) would be located. In proximity to densely populated areas, these generally have a visual character that could be defined as urban, whereas less developed areas could have a visual character defined by the surrounding landscape features, such as open grass fields, forests, mountains, or deserts, etc.

Regulatory Setting

There are no federal special purpose laws or requirements specific to light emissions and visual effects, although there may be relevant laws and requirements such as Section 106 of the National Historic Preservation Act (NHPA), Section 4(f) of the DOT Act, the Wild and Scenic Rivers Act, the Coastal Zone Management Act, and state and regional coastal protection acts. Visual resources are also protected and managed on federal resource lands, such as under U.S. Forest Service Resource Management Plans and the Bureau of Land Management Visual Resource Management System.

Additionally, there are typically no formal required federal consultation processes, permits, or other approvals related to visual effects.

Existing Conditions

As per FAA policy guidance on light emissions and visual resources, the unique resources of the area that could be affected by light emissions and unique characteristics of the area should be considered. There are numerous resources within one-half mile of the Airport, including 13 schools, 11 places of worship, one police station, one library and one fire station. Cabrillo Heights Park is the closest open space to the airport, over one-half mile from the airport perimeter to the southwest.

There are several cultural resources in the vicinity of the Airport that could be impacted by light emissions, including three buildings (hangars) on site that have moderate sensitivity and may be eligible for inclusion in national, state, or local registers.

There are sensitive on-site biological resources, including vernal pools, San Diego fairy shrimp populations, San Diego mesa mint populations, wetlands, and USFWS critical habitat.

Visual Resources and Visual Character

The visual character of the Montgomery-Gibbs Executive Airport area is that of a highly developed landscape. The site is surrounded by mostly Industrial land. There are pockets of Residential to the north. To the east, a mix of Industrial, Public-use, and Open Space is present. On the eastern side of Interstate 15 (I-15), land use is mostly Residential. The land uses directly south of the Airport are Industrial and Public-use, with a large amount of Residential use. To the west of the Airport (west of California State Route 163) are mostly Industrial and Commercial land uses with some Residential land use located between Ruffner Street and Interstate 805 (I-805). West of I-805 is predominately Residential land use.

According to the Kearny Mesa Community Plan, the area is located on a mesa top, which, for certain properties, provides unobstructed views of the surrounding communities. In addition, canyon areas along I-15 and to the south of SR-52 provide open space and visual relief from the built environment. It is recognized that primary arterial and major street systems throughout Kearny Mesa are generally deficient in streetscape amenities, resulting in an environment that is visually unattractive. A recommendation within the community plan is to provide visual relief through provision of open areas within future developments.

There are no designated state scenic highways within the view shed of the proposed action area.

Summary and Recommendations

Light emission impacts on biological resources, including migratory birds, properties protected under Section 4(f) and historic properties under Section 106 of the NHPA are considered to an extent within the relevant chapters of this report. However, it is likely that once the Airport Master Plan is finalized and in advance of future projects being developed under the master plan, details of light-emitting sources will need to be considered in greater detail, and will be subject to further environmental review to ensure there is no adverse impact on these resources.

Since the Airport is already located within its respective community, it is imperative that the master plan does not create an incompatible land use which would create an annoyance for people in the vicinity or interfere with their normal activities, including work and recreation.

Consideration of future proposed above-ground structures should ensure that any new structure would not be a dominant physical feature in the area. Any new development areas within the master plan should ensure aesthetical consistency with existing industrial and commercial development in the surrounding areas. Additionally, the proposed action should specify the following for future development:

- Would not include any large expanses of reflective material, such as glass commonly used for office building;
- That all exterior lighting would be motion-sensitive rather than steady burning, and would be downcast and shielded/baffled to keep light within the footprint of the facilities;
- That all lighting would comply with relevant Light Pollution Code and ordinances and would not create a new source of night lighting or glare; and
- Consider ways that the application of design, art, architecture, and landscape architecture to could visually enhance or obscure potentially intrusive or adverse visual impacts.

As there are no scenic highways in the vicinity of the Airport, the proposed action would not result in impacts on existing scenic resources within a state scenic highway, nor is it likely that future development would inhibit existing highways to be designated as scenic in future.

Since the Kearny Mesa Community Plan identifies that the absence of trees in the community contributes to a heat island effect and diminishes the visual appeal of the area, the master plan for the airport should consider ways to maximize and incorporate tree cover while maintaining safe airport operations.

Water resources (including wetlands, floodplains, surface waters, groundwater, and wild and scenic rivers)

Water resources include surface waters and groundwater, that provide drinking water and support associated functions such as recreation, transportation and commerce, industry, agriculture, and aquatic ecosystems.

Surface water, groundwater, floodplains, and wetlands do not function as separate and isolated components of the watershed, but rather as a single, integrated natural system. Disruption, or reduction in quality, of any one part of this system can have consequences to the functioning of the entire system.

Because of the close and integrated relationship of these resources, analysis of this resource is conducted under an all-encompassing impact category, water resources. Wild and Scenic Rivers are included because impacts to these rivers can result from obstructing or altering the free-flowing characteristics of a designated river, an impact more closely resembling an impact to a water resource.

Regulatory Setting

Executive Order 11988: Floodplain Management

Executive Order 11988 requires federal agencies to avoid to the extent possible the long and short-term adverse impacts associated with the occupancy and modification of flood plains and to reduce the risk of flood loss, minimize the impact of floods on human safety, health, and welfare, and restore and preserve the natural and beneficial values served by floodplains. Under Order DOT 5650.2, Floodplain Management and Protection, agencies are required to make a finding that there is no practicable alternative before taking action that would encroach on a base floodplain based on a 100-year flood.

Executive Order 11990: Protection of Wetlands

Executive Order 11990 requires federal agencies to avoid adverse impacts associated with the Destruction/ modification of wetlands and to avoid direct/indirect support of new construction in wetlands wherever there is a practicable alternative. DOT Order 5660.1A, Preservation of the Nation's

Wetlands implements the guidelines in Executive Order 11990.

National Flood Insurance Act

The National Flood Insurance Act established the National Flood Insurance Program, a voluntary Federal Emergency Management Agency (FEMA)-implemented floodplain management program for communities (cities, towns, or counties). Any action within a FEMA-mapped floodplain in a participating community must follow the community's FEMA-approved floodplain management regulations.

Code of Federal Regulations (CFR), Title 44—Emergency Management and Assistance, Chapter I—FEMA

Contains the policies and procedures for FEMA to regulate floodplain management and to analyze, identify, and map floodplains for the National Flood Insurance Program (NFIP)

Clean Water Act

The Clean Water Act establishes the structure for regulating the discharge of pollutants into waters of the United States (a jurisdictional surface water or wetland). Section 401 of the Act states that to ensure a project does not violate state or tribal water quality standards, a Water Quality Certificate is required.

Fish and Wildlife Coordination Act

This Act requires federal agencies to coordinate with USFWS if a project may result in control or modification of the water of any stream or other water body (including wetlands).

Safe Drinking Water Act

Prohibits federal agencies from funding actions that would contaminate an EPA-designated sole source aquifer or its recharge area.

Wild and Scenic Rivers Act

This Act created the National Wild and Scenic Rivers System to preserve certain rivers with outstanding natural, cultural, and recreational values. Four federal agencies administer the Wild and Scenic Rivers Act for rivers within the National System; the US Department of the Interior Bureau of Land Management (BLM), the US National Park Service (NPS), the US Fish and Wildlife Service (USFWS), and the US Forest Service (USFS).

Existing Conditions

Floodplains are lowland areas adjoining inland and coastal waters which are periodically inundated by flood waters, including flood-prone areas of offshore islands. Floodplains are often discussed in terms of the 100-year flood and these are set out on FEMA maps.

According to the Clean Water Act, wetlands are areas "inundated or saturated by surface or ground water at a frequency and duration sufficient to support...a prevalence of vegetation typically adapted for life in saturated soil conditions."

Surface waters include streams, rivers, lakes, ponds, estuaries, and oceans.

Floodplains

According to the FEMA maps (map references 06073C1617G, 06073C1610G and 06073C1628H) the site is within Zone X - areas determined by FEMA to be outside 0.2-percent annual chance floodplain. The nearest floodplain is associated with the Murray Canyon Creek situated to the southwest (south

of Aero Drive) and an area to the east of Murphy Canyon Road associated with Murphy Canyon Creek, neither of which are likely to be impacted by development at the airfield.

Surface waters
The USGS's National Hydrography Dataset indicates an ephemeral river/stream running south of the Airport from Aero Drive towards Serra Mesa-Kearny Mesa Branch Library and through Sera Mesa Community Park and beyond.

Wetlands
According to the USFWS National Wetland Inventory (NWI), the following wetland types are mapped within the study area:

- PEM1A - Palustrine, Emergent, Persistent, Temporary Flooded
- PEM1Ah - Palustrine, Emergent, Persistent, Temporary Flooded, Diked/Impounded
- PEM1Ax - Palustrine, Emergent, Persistent, Temporary Flooded, Excavated
- PSSA - Palustrine, Scrub-Shrub, Temporary Flooded
- PSSAx - Palustrine, Scrub-Shrub, Temporary Flooded, Excavated

These wetlands are situated to the east of the site, between Runway 23 and 28R and 28r and 28L and to the northeast, east and south of the Air Traffic Control Tower.

Groundwater
There are no Sole Source Aquifers in the vicinity of the Airport.

Wild and Scenic Rivers
There are no designated Wild and Scenic Rivers in the vicinity of the Airport. The closest Wild and Scenic Rivers are Bautista Creek, Fuller Mill Creek, North Fork San Juan and Palm Canyon Creek, proximal to Palm Springs, California, and situated within the San Bernardino National Forest. This is a considerable distance away from the Airport and would not be impacted.

Summary and Recommendations
The Airport is not within a floodplain, so no further assessment is required regarding Floodplains. Further consideration of the ephemeral rivers/streams may be required as USGS's National Hydrography Dataset and USFWS indicates ephemeral rivers/streams are in the vicinity. Any future potential construction activities towards the eastern side of the Montgomery-Gibbs Executive Airport site (adjacent to Gibbs Aircraft Service Center) would need to consider the impact on the ephemeral river/stream.

Section 404 of the Clean Water Act regulates impacts to waters of the U.S., including wetlands and open water features. To ensure there is no net loss of functionality or values to the wetlands, impacts must be avoided, minimized, or mitigated. To the greatest extent practicable, future planning and design will incorporate avoidance and minimization of impacts to known wetland areas. Where avoidance and minimization would not be practicable, mitigation for impacts to wetlands could be achieved through the use of temporary and permanent Best Management Practices (BMPs). A Wetland delineation should be undertaken in order to determine if any areas are present in the affected environment that meet a regulatory definition of a wetland.

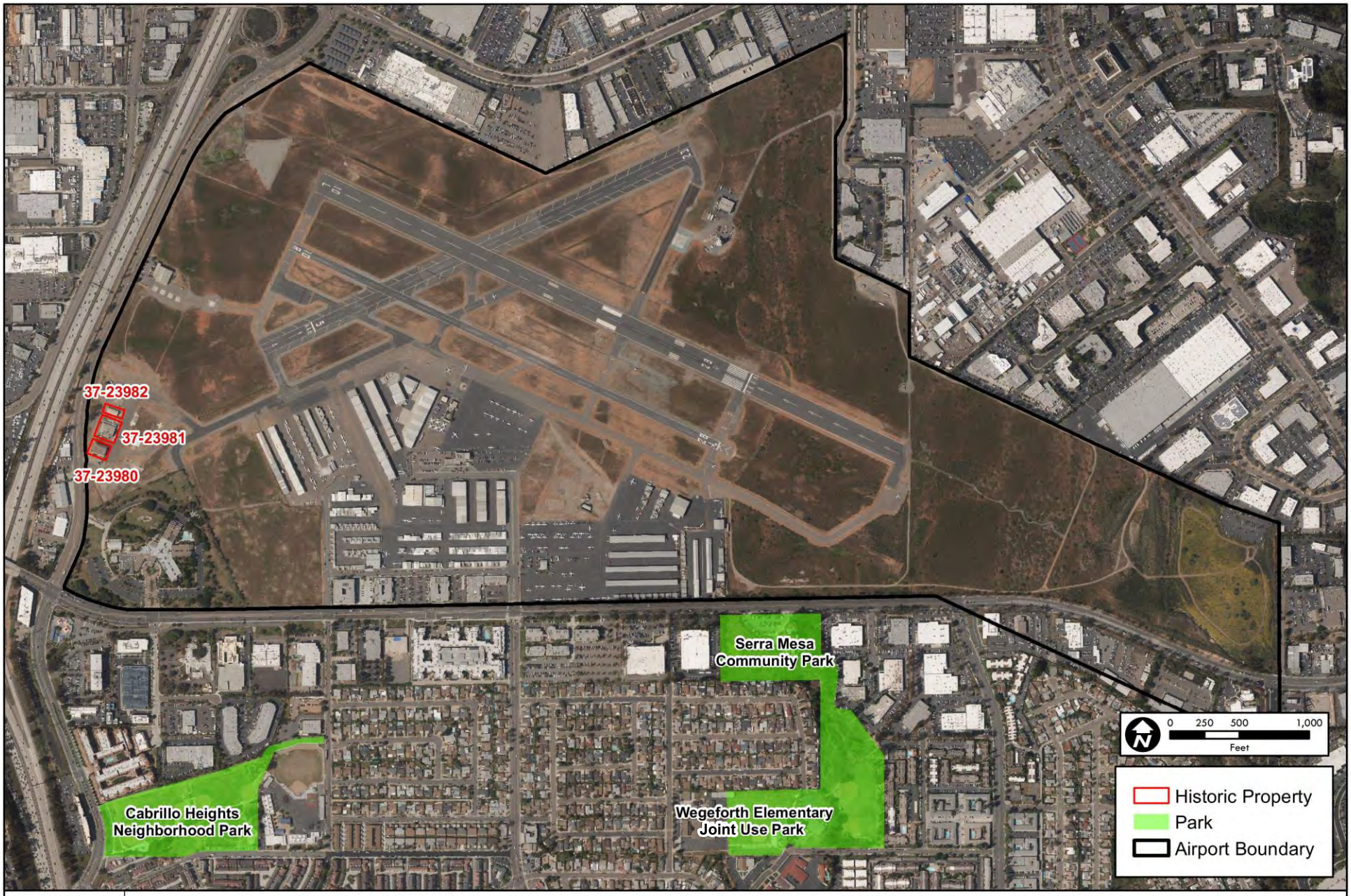
Whilst not applicable to a master plan proposed action, it should be noted that a Section 404 permit would potentially be required from the USACE to authorize placement of dredge and fill material in any water of the U.S., including wetlands. Impacts under 0.5 acre often are permitted under existing Nationwide Permits (NWP), such as NWP 14, which covers linear transportation projects. Impacts

greater than 0.5 acre would require obtaining an Individual Permit. An Individual Permit includes a public notice and would trigger a NEPA clearance for the USACE. Generally, mitigation would be required under either permit type for impacts exceeding 0.1 acre of jurisdictional waters of the U.S., including wetlands. Prior to application for a permit, a wetland delineation survey would need to be conducted to document wetland boundaries and impact footprints. It should be noted that before the USACE can issue a Section 404 permit, a Section 401 water quality certification must first be obtained from the State Water Resources Control Board. This serves to highlight that there would potentially be project delays if the timeline for permit application is not considered within the proposed action timeline.

Whilst not applicable to a master plan proposed action, it should be noted that if any future proposed action or alternative(s) has the potential to discharge pollutants into waters of the United States through a point source, a National Pollutant Discharge Elimination System (NPDES) permit will likely need to be obtained.

4.6 Environmental Constraints Figures

The following images present a subset of all the resources at the Airport that may trigger additional review and design alternatives, or present health or safety issues. For example, if during NEPA review, design proposes demolition of a Section 4(f) resource (see **Figures 4.7** and **4.10**), it will trigger an additional individual evaluation, and the need for avoidance alternatives, and perhaps a least overall harm analysis. Similarly, impacts to biological resources may trigger lengthier consultation under Section 7 of the Endangered Species Act (See **Figure 4.11**). Planners and designers should be aware of these constraints in order to make informed decisions. Hazardous materials are included for safety purposes and the potential costs associated with clean-up (see **Figure 4.8**). Sensitive noise receivers are included as well, although most noise impacts are expected to be mitigable (see **Figure 4.9**).



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FIGURE 4.7

Section 4(f) Constraints for MYF

Sources: CHRIS 2017, SanGIS 2017

100054723 MYF/SDM Master Plans

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ID	REPORTS
1	ERNS; US RCRA Generators; CA Registered Underground Storage Tanks; CA Leaking Underground Storage Tanks; CA Spills, Leaks, Investigations, and Cleanups
2	US RCRA Generators
3	US RCRA Generators
4	CA Leaking Underground Storage Tanks; CA Spills, Leaks, Investigations, and Cleanups
5	CA Leaking Underground Storage Tanks; CA Spills, Leaks, Investigations, and Cleanups
6	CA Leaking Underground Storage Tanks; CA Spills, Leaks, Investigations, and Cleanups; CA Solid Waste Landfills
7	CA Registered Underground Storage Tanks; CA Spills, Leaks, Investigations, and Cleanups

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FIGURE 4.8

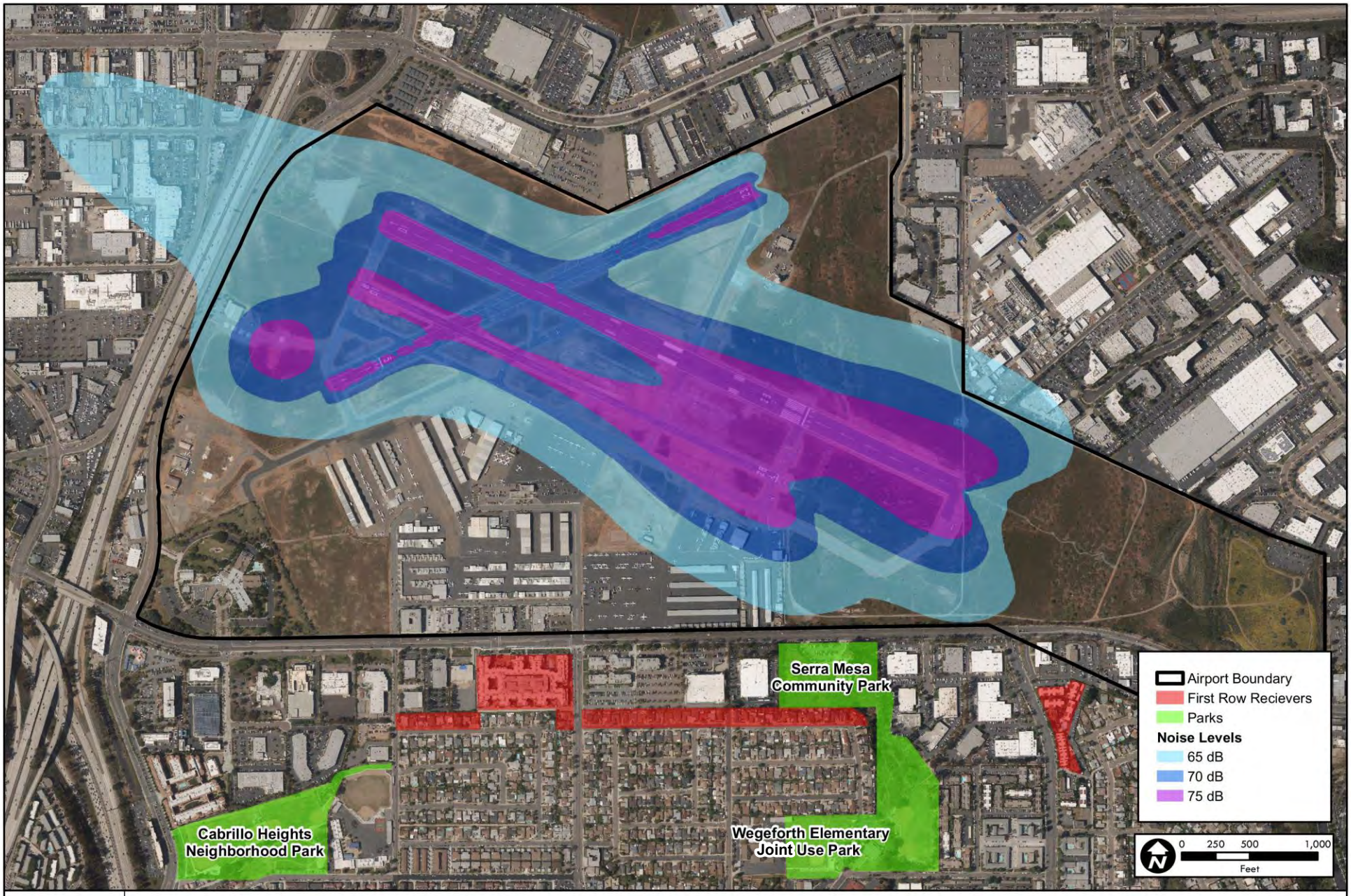
HazMat for MYF

2014

100054723 MYF/SDM Master Plans

Sources: NETR Online 2017, SanGIS

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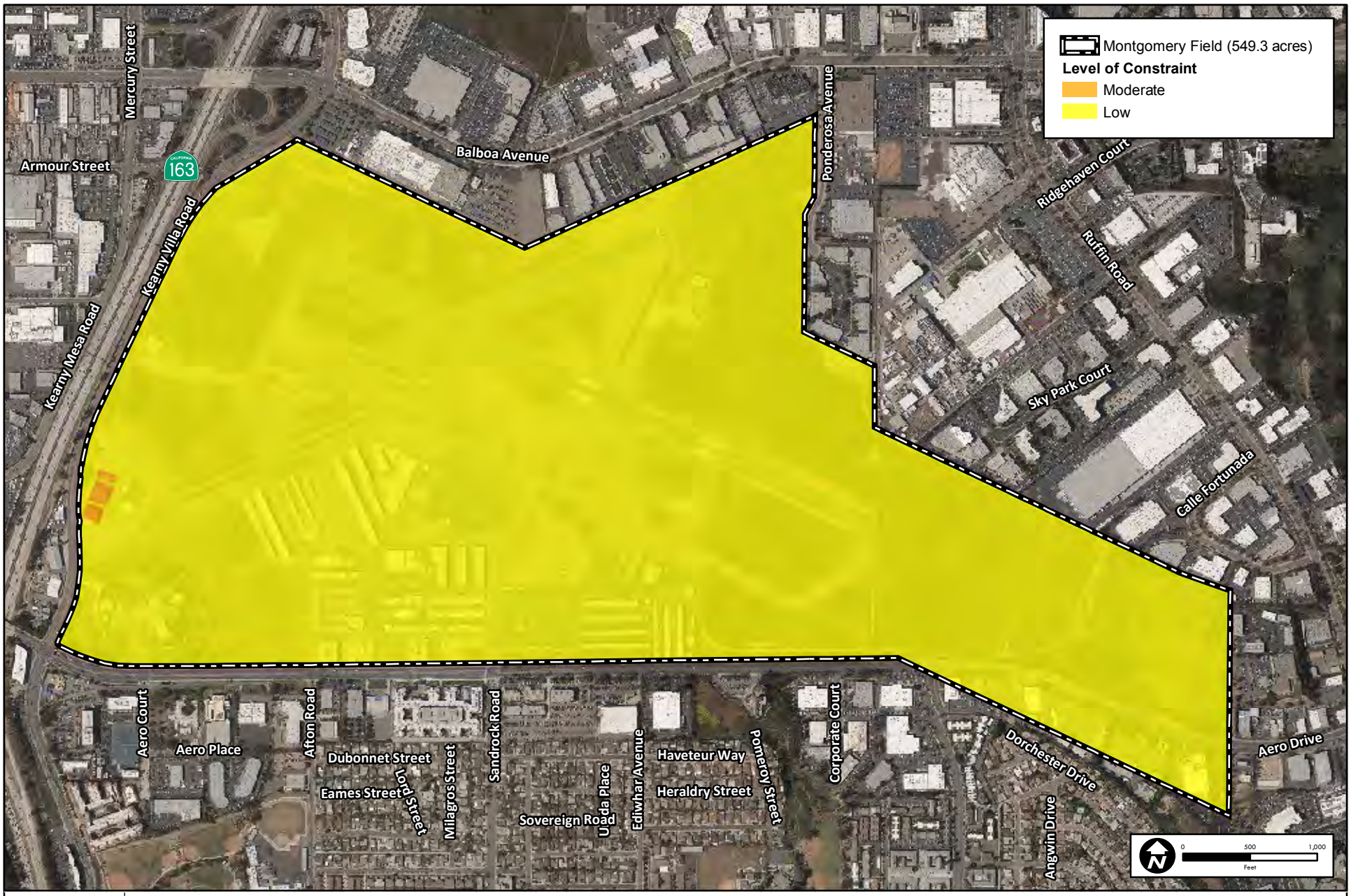
FIGURE 4.9

Sensitive Noise Receivers at MYF

Sources: HMMH 2017, SanGIS 2017

100054723 MYF/SDM Master Plans

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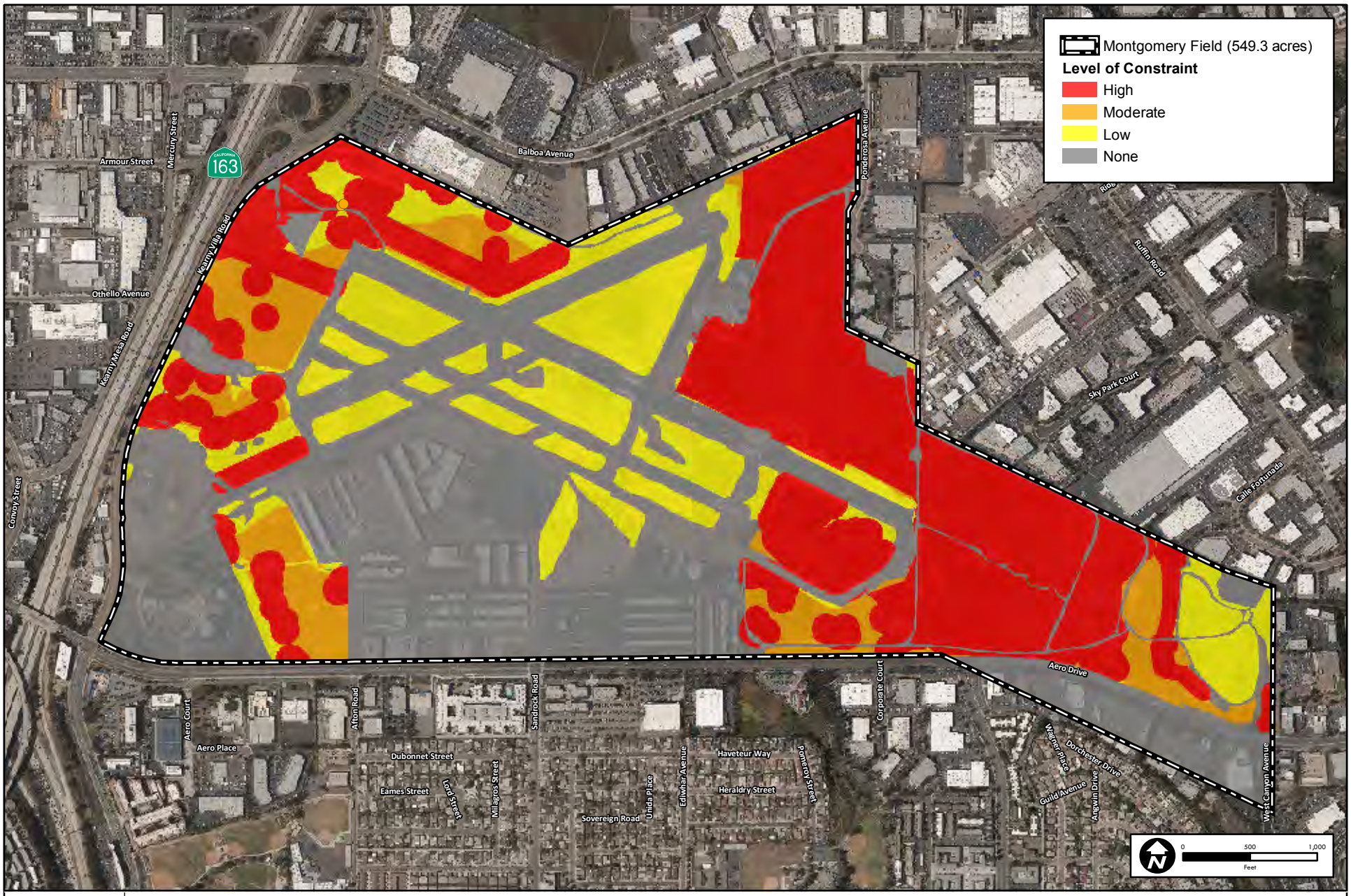
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Figure 4.10

Cultural Constraints for MYF

100054723 MYF/SDM Master Plans

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Figure 4.11

Biological Constraints for MYF

100054723 MYF/SDM Master Plans

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4.7 Conclusion and Recommendation

From an initial review of available environmental resources, there are several environmental impact categories within the Airport study area that could be potentially affected by the proposed master plan amendment, such as:

- Air Quality
- Biological resources
- Department of Transportation, Section 4(f) resources
- Hazardous Materials;
- Historical, architectural, archaeological and cultural resources;
- Land use; and
- Noise and noise compatible land use.

Under FAA Order 1050.1F, certain planning activities may be subject to a Categorical Exclusion. However, due to the possibility that the proposed action may have one or more significant impacts, it is likely an EA will need to be prepared to satisfy FAA requirements. However, as further development of the master plan at the airports occur, it may be possible to mitigate some of the identified environmental constraints and thus a categorical exemption may be permissible.

This Environmental Overview enables further environmental review to be focused on the topic areas where potential impacts lie, and scopes out the need to assess resources that do not lie in the vicinity of the Airport.

SD Airports



Airport Master Plan

Montgomery-Gibbs Executive Airport

Section 5

Alternatives

Prepared by:

C&S COMPANIES®

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5.1 Introduction

An effective combination of airside (airfield) and landside planning is essential to the successful development of an airport. After the evaluation of existing conditions, determination and FAA approval of forecasts, and identifying facility requirements for an airport, the next step in the master plan process involves developing a series of alternative solutions to satisfy the existing and future demand as determined by the preceding steps. In this section, alternative plans for proposed development at Montgomery-Gibbs Executive Airport are presented and evaluated, ultimately producing a preferred alternative for both the airside and landside components of the airport.

Objective of the Analysis

The overall objective of the alternatives analysis is to evaluate the best ways to implement the necessary facility requirements to safely and effectively meet FAA safety, capacity, and design standards, and to accommodate projected levels of aviation demand over the planning period. In addition to fulfilling these primary objectives, the following operational and economic objectives of the Airport were also considered in the development and evaluation of alternatives:

- Become financially self-sufficient;
- Encourage airport business growth and opportunities;
- Be customer focused both internally and externally; and
- Maximize the City's return on investment (ROI) for Airport property.

Alternatives Approach

The runway and taxiway system and associated airspace and safety areas at the Airport encompass the greatest land and imaginary surface areas on the airfield. Thus, to ensure the FAA's safety, capacity, and design standards would be met, development of the airfield alternatives occurred separately, but concurrently, from the landside alternatives. Four alternative scenarios were formed for both the airside and landside components of the Airport. These initial draft alternative scenarios were then presented to the Planning Advisory Committee (PAC) and the public for input and comment. Collection and interpretation of input gathered from the PAC, and the public, ultimately indicated that no single proposed alternative contained all of the preferred airside and landside components. As such, adjustments were made to each proposed alternative scenario. Next, evaluation criteria were created using guidance found in FAA's AC 150/5070-6B, *Airport Master Plans*, to rate each alternative, with the goal of identifying a recommended airside and landside alternative. Based on the outcome of the evaluation and ranking process, a preferred airside and landside alternative scenario emerged. The preferred airside and landside scenarios were then combined into one recommended preferred development alternative for the Airport. This recommended combined alternative was then presented to the PAC and City for final review and approval. This process is described in greater detail within this section.

5.2 Airfiel Facility Priorities

Airfield facilities are, by their very nature, the focal point of an airport complex. These facilities include runways, taxiways, and navigational aids, and they directly support operating aircraft. Because of their role, and the fact they occupy a great deal of airport property, airfield facility needs are often the most critical factor in the determination of viable airport development alternatives. The runway system requires the greatest commitment of land area and is often the greatest influence on the identification and development of ancillary airport facilities.

The potential need for physical expansion of an airport to accommodate airfield development is the primary factor that determines long-term development. The runway and taxiway system directly affects the efficiency of aircraft movements both on the ground and in the surrounding airspace. It also may limit the ability of the Airport to handle certain aircraft. In addition, the efficiency of aircraft movements is also affected by local approach and departure procedures, which can be influenced by local noise restrictions, airspace congestion, or other considerations.

Required Airfield Improvements

The airfield's existing configuration accommodates the existing and future aircraft fleet mix and traffic levels with the use of parallel Runways 10R/28L and 10L/28R, and crosswind Runway 5/23. The following areas have been identified as FAA hotspots or current taxiway geometry concerns at MYF, and do not comply with the FAA recommended pavement geometry, per the FAA AC 150/5300-13A, *Airport Design*. These areas, which have an increased risk of incursions or a historically high number of incursions, are listed below. They are also depicted in **Figure 5.1**.

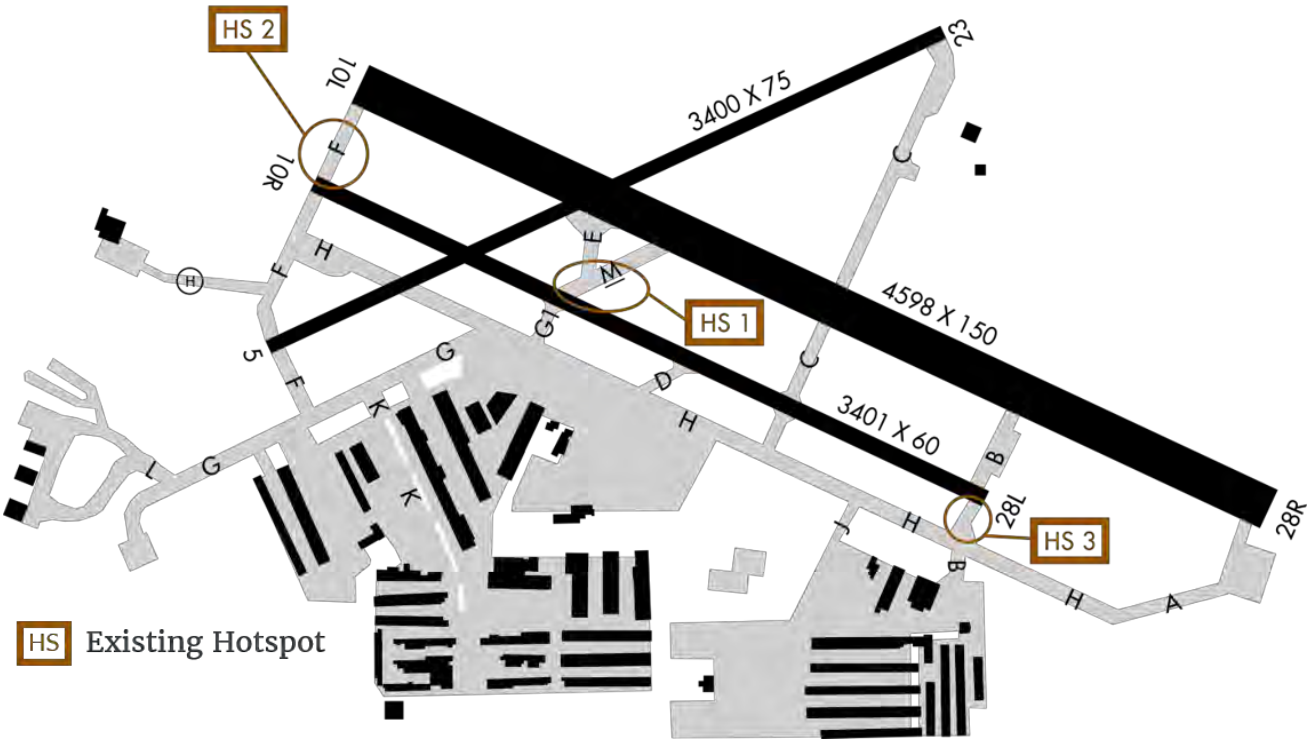
Hotspot 1
Hotspot 1 is at the intersection of Taxiways Echo and Mike. The existing geometry of Taxiway Echo is considered inadvisable due to the taxiway intersecting more than one runway at this location. Ideally, taxiways should not coincide with the intersection of two runways. Taxiway Mike is an acute-angled exit taxiway which allows aircraft to exit Runway 10L/28R at a higher speed than a perpendicular taxiway exit. This taxiway leads directly to Runway 10R/28L and creates an inadvisable runway crossing which does not provide the pilot with an effective view of Runway 10R/28L in both directions.

Hotspot 2
Hotspot 2 is located on Taxiway Foxtrot between Runways 10L and 10R. This area historically has a high level of runway incursions due to aircraft exiting Runway 28R and crossing the Runway 10L threshold without clearance. Reconfigurations should be considered in this area to mitigate this hotspot.

Hotspot 3
Hotspot 3 is at the intersection of Taxiway Bravo and Taxiway Hotel. Aircraft leaving the apron on Taxiway Bravo can currently taxi directly on to Runway 28L without making any turns, creating a direct runway access issue. Reconfiguration of Taxiway Bravo for this area is necessary to eliminate direct access to Runway 28L, as well as to remove the nonstandard and insufficient run-up area off of Taxiway Bravo.

Taxiway Alpha – At Runway 28R End
While not formally recognized as an airfield hotspot, this location has been identified by the FAA in the Runway Incursion Management (RIM) Program study as an area of high incidence of runway incursions at MYF. This is due to the hold bay configuration and taxiway markings, as well as nonstandard taxiway geometry at the Runway 28R threshold. Modifications are proposed in this area to upgrade the taxiway geometry to current FAA design criteria and to increase hold bay capacity.

Figure 5.1 – Existing Airfield Geometry and Hotspots



Source: FAA AC 150/5300-13, *Airport Design*, C&S Engineers, Inc.

Proposed Airfield Improvements

Beyond the required improvements to the existing taxiway geometry described above, additional airfield facility modifications should be planned as part of the ultimate development goals of the Airport. While these ultimate airfield development initiatives may not be justified for immediate implementation, planning for their eventual implementation serves to preserve the required land area for such improvements and guides the creation of development concepts for the other functional areas of the airport property.

Runway 28R Threshold

The current Runway 28R threshold is displaced by 1,199 feet due to the City of San Diego Resolution R-280194 passed in 1992. This resolution was intended to limit the size of aircraft capable of operating at MYF by reducing the amount of runway available when landing to the west. As part of the alternatives analysis process, the fleet mix at MYF was analyzed between January 2016 and January 2018. The analysis found that many of the aircraft types Resolution R-280194 aimed to limit are currently operating at MYF. These aircraft include the Citation Sovereign (30,775 pounds), the Citation III (22,000 pounds), and the Challenger 300 (38,850 pounds). In 2016, there were approximately 184 operations by airframes with a maximum take-off weight (MTOW) greater than 20,000 pounds. Research of this issue found these larger aircraft currently utilize a circling approach that is available for Runway 10L so they can use the full 4,598 feet of landing distance available. Relocating the Runway 28R threshold will have several critical impacts which are important to note:

- Runway Protection Zone Relocation – In 2012, the FAA issued Interim Guidance (IG) on Land Uses within a Runway Protection Zone (RPZ), which implemented significant evaluation standards for land uses within a RPZ. The proposed Runway 28R threshold relocation would be considered a modification of the existing RPZ configuration, and therefore must be

evaluated by the FAA for any risks associated with the new configuration.

- Medium Intensity Approach Lighting System With Runway Alignment Indicator Lights (MALSR) – The MALSR for Runway 28R will need to be relocated to accommodate the proposed threshold relocation. The FAA owns and maintains the MALSR, thus the relocation costs associated with moving the equipment and coordination will ultimately have to be agreed upon by the FAA. Furthermore, this equipment relocation will need to occur in areas that have a high potential for environmental impacts, including areas known for sensitive species such as the San Diego goldenstar and San Diego fairy shrimp.

- Glideslope Equipment - The navigational aids which provide instrumented vertical guidance to pilots on approach will need to be relocated with the threshold. Relocation will occur in areas which may have environmental impacts.

- Precision Approach Path Indicator (PAPI) - The PAPI is a navigational aid which provides visual guidance to pilots on approach. It will need to be relocated along with the threshold. Relocation will occur in areas which may have environmental impacts.

Runway 5/23

Runway 5/23 historically has low utilization rates and is not required to meet airport crosswind coverage. Consequently, various configurations of this runway were examined in the alternatives analysis to create opportunities to gain previously disturbed areas for landside development, as well as reduce runway incursion incidents.

Hold Bays

The current hold bays are not compliant with FAA design standards as outlined in AC 150/5300-13A. The lack of pavement and markings on the hold bay located at Taxiway Bravo and Taxiway Hotel is nonstandard. A hold bay located off of Taxiway Hotel prior to reaching Taxiway Bravo that meets standards is proposed. The proposed hold bay will improve the safety of the airfield by allowing aircraft to bypass other aircraft that are performing run-ups or waiting for clearance from air traffic control.

Proposed Instrument Approach Procedures

An evaluation of the primary runway system (Runway 10L-28R) was conducted as it relates to instrument approach procedures. The airspace analysis evaluated two items - the feasibility of adding an instrument approach procedure (IAP) to Runway 10L and a review of the controlling obstacles for Runway 28R's published IAPs to determine the feasibility of reducing the existing approach minimums. A brief description of each evaluation is described below, with the full report analysis found in **Appendix J**.

Proposed Runway 10L Instrument Approach

An in-depth FAA Terminal Instrument Procedures (TERPS) evaluation determined that an area navigation (RNAV) GPS procedure with lateral navigation (LNAV) and localizer performance with vertical guidance (LPV) approaches can be achieved within the MYF airspace environment and yield effective approach minimums.[1] Thus, a request to add the non-precision IAP will be made to the FAA. The FAA's Flight Procedures Office will conduct further analysis and ultimately determine if the IAP will be published or not.

[1] The LNAV approach can achieve approach minimums of 840 feet above mean sea level (AMSL) with visibility minimum of one statute mile (s.m.). The LPV approach can achieve approach minimums of 673 feet AMSL with visibility minimums of ¾ s.m.

Runway 28R Controlling Obstacle Review

A review of the controlling obstacles associated with the existing precision instrument landing system (ILS), or LOC, and RNAV (GPS) LPV and LNAV/VNAV approach minimums to Runway 28R concluded they are the lowest that can be authorized or that can be considered reasonable given the obstacle environment at the Airport. Some inaccuracies associated with certain obstacles were observed as a result of the analysis. For example, the controlling obstacle of the circling minimums for both the ILS and RNAV approaches has been confirmed to no longer exist, and this finding should be communicated to the FAA Flight Procedures Office. The FAA should be advised of these discrepancies so they may be reassessed when the existing instrument approach procedures undergo their periodic review. Ultimately, an appropriate benefit/cost analyses that compares the economic value of increased runway end utilization and the cost to mitigate the controlling obstacle would likely be needed prior to making any changes to the published approach minimums.

5.3 Airside Alternatives Development

The City of San Diego has a defined vision for the future of the Airport. Based on this vision, input from the public, and the considerations described above, the potential locations of key airside components emerged. Four separate airfield alternative concepts were developed based on identified airfield improvements. While similarities exist between the four airfield alternatives, differences can be seen regarding the threshold relocations and subsequent taxiway development. These alternatives are designated as described in the paragraphs that follow.

Airside Alternative 1 – No Action

This alternative involves maintaining the existing layout, size, and configuration of all associated airside facilities over the course of the planning period. **Figure 5.2** depicts the No Action airside alternative.

Airside Alternative 2 – Airfield Design Deficiencies

This alternative reflects the airport improvements required to mitigate existing airport design deficiencies. The mitigation of airfield hot spots is proposed to be completed through various measures such as pavement removal, reconfiguration, and replacement. These improvements are intended to address design deficiencies with the least amount of financial and environmental impact to the City. This includes minimizing the amount of undisturbed land or land already leased to tenants. New taxiway pavement geometry is designed according to FAA AC 150/5300-13A, Change 1, *Airport Design*. Components of this alternative are depicted in **Figure 5.3** and include the following:

- **Hot Spot 1 –** Removal of Taxiways Echo and Mike. The Taxiway Echo exit will be replaced further east as a 90-degree connection crossing to Runway 28L and connecting to Taxiway Hotel. Furthermore, runway guard lighting should be incorporated in addition to typical taxiway lighting and signage. This option will also require the relocation of the segmented circle.

- **Hot Spot 2 –** A new taxiway connection will be constructed east of Taxiway Foxtrot to add additional capacity for aircraft to hold short of Runway 10R and Runway 10L. Runway guard lighting should be incorporated in addition to typical taxiway lighting and signage.

- **Hot Spot 3** – Reconfiguring the apron connection to Taxiway Hotel will decouple the direct access from the apron area to the Runway 28L threshold, thus decreasing the potential for a runway incursion. Also proposed is the removal of excess pavement and nonstandard hold area on the east side of Taxiway Bravo.

Balboa Ave.

Route 163

ATCT

Aero Dr.

Glenn H. Curtiss Rd.

John J. Montgomery Dr.

Afton Rd.

Sandrock Rd.

Source: C&S Engineers, Inc.

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Montgomery-Gibbs Executive
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Figure 5.2

Airside/Landside
Alternative 1
No Action

Legend

- Property Line
- Existing Buildings
- Existing Airfield Pavement

250' 0' 250' 500'

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Balboa Ave.

Route 163

ATCT

Glenn H. Curtiss Rd.

John J. Montgomery Dr.

Aero Dr.

Afton Rd.

Sandrock Rd.

Source: Atkins

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Figure 5.3
Airside Alternative 2 Airfield Design Deficiencies

Legend

- Property Line
- Existing Buildings
- Existing Airfield Pavement
- Proposed Airfield Pavement
- Proposed Demolition
- Proposed Segmented Circle

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Airside Alternative 3 – Threshold Reconfiguration

This alternative presents similar design deficiency options as Alternative 2, as well as options for the Runway 5 and Runway 28R thresholds. These options will meet the minimum required demand, but in a manner that will maximize the runway length available for landing on Runway 28R and optimize the space in previously disturbed areas to capitalize on landside development opportunities. Components of this alternative are depicted in **Figure 5.4** and include the following proposed activities:

- **Runway 28R, Displaced Threshold Removal** – Proposed removal of the 1,199-foot displaced threshold on Runway 28R, with associated MALSR and other NAVAID relocation. This relocation will allow aircraft to utilize the full runway length when landing.

- **Runway 5, Runway End Relocation** – To increase developable area along Kearny Villa Road, this alternative proposes the removal of pavement up to the Runway 5 displaced threshold and some of the airfield pavement, including a portion of Taxiway Foxtrot from Taxiway Hotel to the entrance of the police department facility. A new connection is proposed for access to the new Runway 5 threshold from Taxiway Golf.

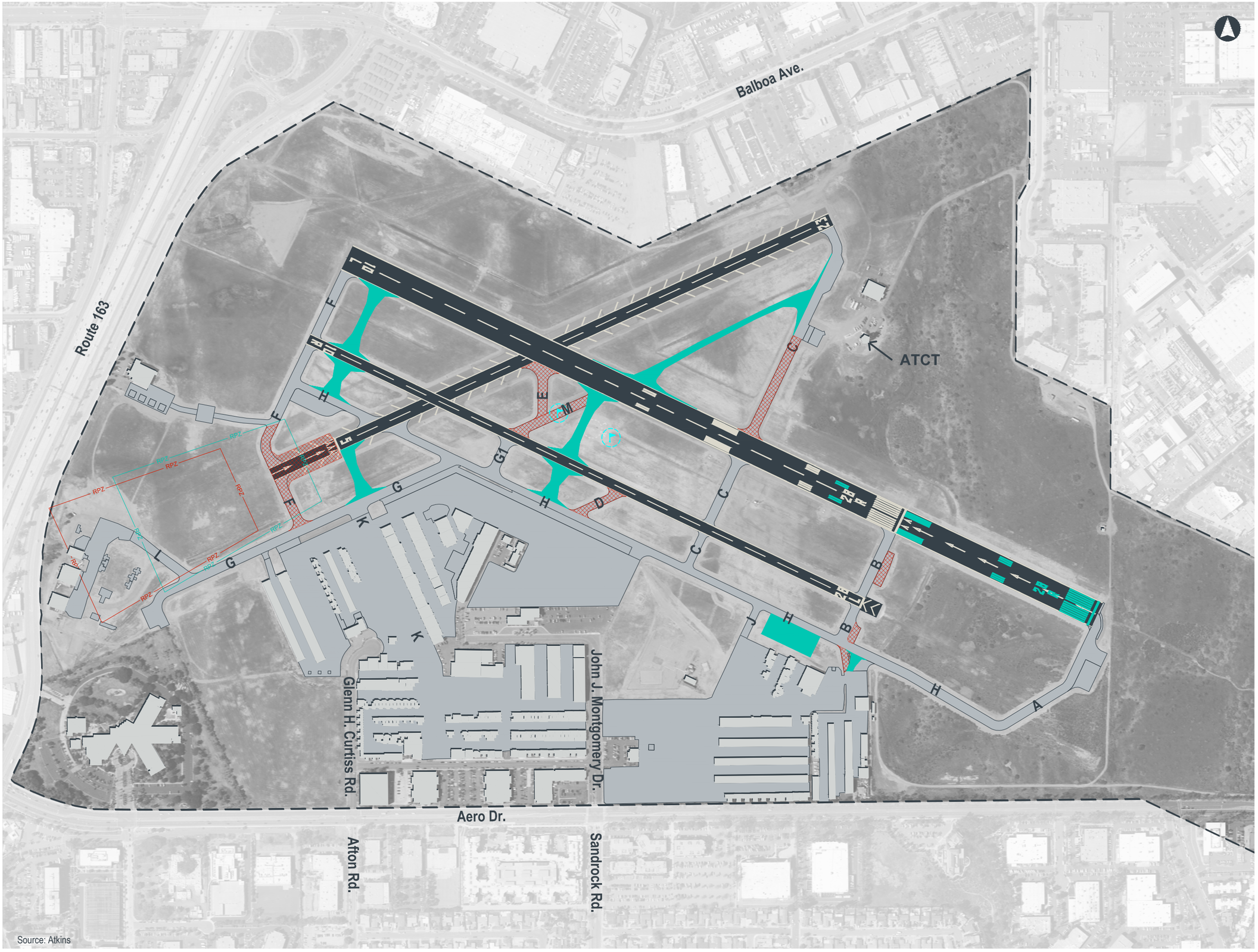
- **Partial removal of Taxiway Charlie** - This removal is proposed to create previously disturbed areas suitable for development in the northeast quadrant of the Airport. To maintain access to the Runway 23 end, a partial-parallel taxiway is proposed for Runway 5/23.

Airside Alternative 4 – Fresh Perspective

This alternative provides new options for Runway 5/23, the Runway 28R threshold, and various taxiways. It also increases land available for future aeronautical development beyond the 20-year planning period. Alternative 4 is similar to Alternative 3 but would have the most impact on the City from an operational, financial, and environmental standpoint, and it has the greatest potential to limit the operational capabilities of small aircraft in crosswind scenarios. Components of this alternative are depicted in **Figure 5.5** and include the following features.

- **Removal of Runway 5/23** – MYF currently exceeds the FAA standard 95 percent wind coverage with only the use of its parallel Runways 10R/28L and 10L/28R. Therefore, Runway 5/23 is not required for airport crosswind coverage. This alternative looks at the impact of completely closing and removing the runway.

- **A full-parallel taxiway to the north of Runway 10L/28R** - A full-length taxiway parallel to Runway 10L/28R is proposed in conjunction with adequate entrance and exit taxiways connecting to the runway to obtain the highest level of airfield capacity. This future parallel taxiway system would also provide additional entrance/exit taxiways to support development on the north side of the property.



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Figure 5.4
Airside Alternative 3 Threshold Reconfiguration

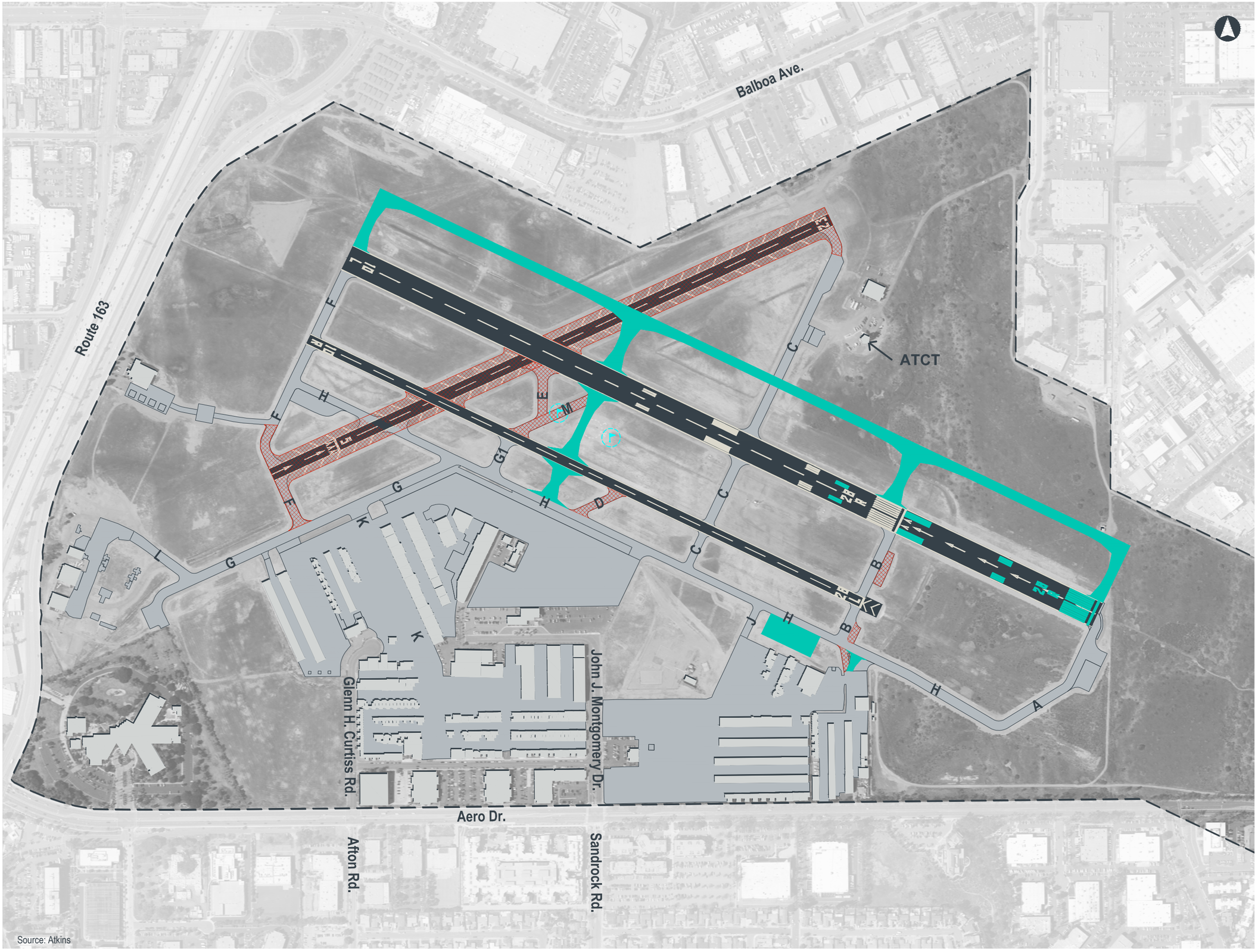
Legend

- Property Line
- Existing Buildings
- Existing Airfield Pavement
- Proposed Airfield Pavement
- Proposed Demolition
- Proposed Segmented Circle
- RPZ — RPZ — Existing RPZ
- RPZ — RPZ — Proposed RPZ

250' 0' 250' 500'

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Figure 5.5
Airside Alternative 4 Fresh Perspective

Legend

- Property Line
- Existing Buildings
- Existing Airfield Pavement
- Proposed Airfield Pavement
- Proposed Demolition
- Proposed Segmented Circle

250' 0' 250' 500'

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PAC and Public Review

The Airport Master Plan PAC and the public evaluated the airside alternatives and provided input and recommendations for the planning team's consideration. While the comments and recommendations varied on each alternative, several recurring themes emerged from the PAC's and public's review and input. The more significant concerns and suggestions provided by both entities included the following:

- Hold bay enhancements were supported, but tenants voiced concerns over the location of the proposed run-up area adjacent to the Runway 28L threshold.
- Removal of Runway 5/23 was not widely supported.
- The relocation of the Runway 5 end was generally seen as a favorable and acceptable airfield modification.
- Removal of the displaced threshold on Runway 28R received mixed support, with tenants and operators in favor and residents of surrounding communities voicing concerns about changing fleet mix and increased noise.
- Modifications to hot spot areas were generally supported, with some pilots voicing disappointment in the proposed removal of several acute-angle exit taxiways.
- ATC staff recommended reviewing the proposed Taxiway Foxtrot hotspot to ensure the nature of incursions in this area is addressed.
- FAA Office of Engineering recommended further evaluation of the Taxiway Alpha and Runway 28R threshold connection for runway incursion mitigation opportunities.

The above items summarize the majority of the most frequent or common input that was received from the PAC, public, and FAA regarding the presented airside alternatives. However, all PAC and public comments related to the proposed alternatives can be found in **Appendix K**.

5.4 Landside Facility Priorities and Proposed Locations

Landside and select support facilities are integral components of a well-functioning airport. Thus the careful and insightful planning of proposed future development in these areas is essential. The previous section recognized the areas of the airfield where enhancements are needed and presented various alternatives correcting nonstandard design elements or improving the overall capacity and safety of the airfield configuration. Similarly, this section provides various alternatives for key components associated with landside facilities. As a result of the Facility Requirements needs assessment and outreach with the PAC and public users of the Airport, the top three priorities desired from a landside perspective were identified and include:

1) Additional hangar storage
2) Additional transient aircraft parking apron
3) Updated and larger terminal building

In addition to these top priorities, other components given consideration and incorporated into the alternatives included several support facility improvements, as well as land use preservation. These items are discussed further in the Ancillary Support Facilities section.

Hangars

The availability of aircraft storage hangars, specifically T-hangars and small single-aircraft box hangars, has become increasingly limited. The demand for additional hangars at the Airport has been apparent for some time and supports the results of the hangar demand analysis conducted within **Section 3 – *Facility Requirements***. This analysis determined the Airport was deficient in T-hangars and small single-aircraft box hangars and would benefit from the addition of approximately 36,000 square feet, or roughly 25 hangars, depending on the ultimate size of the structures. It should be noted this is the minimum amount of these hangar types recommended based on the projected demand over the planning period; however, the option to construct additional hangars beyond the forecasted demand is justified if the interest and financial support exist. Therefore, when identifying areas of the airfield to potentially construct the additional hangars, consideration was made as to the amount of space that would ultimately be needed if additional hangars were desired within the planning period and beyond. Designating a larger area for hangar development ensures the space is preserved for similar future development, which adds to the overall cohesiveness of the airfield.

Proposed Hangar Locations

Based upon the existing configuration of the airfield, along with input from the City, PAC, and the public, the identification of five areas on the airfield emerged as potential locations for the construction of additional hangars (see **Figure 5.6**). Designations assigned to the areas are:

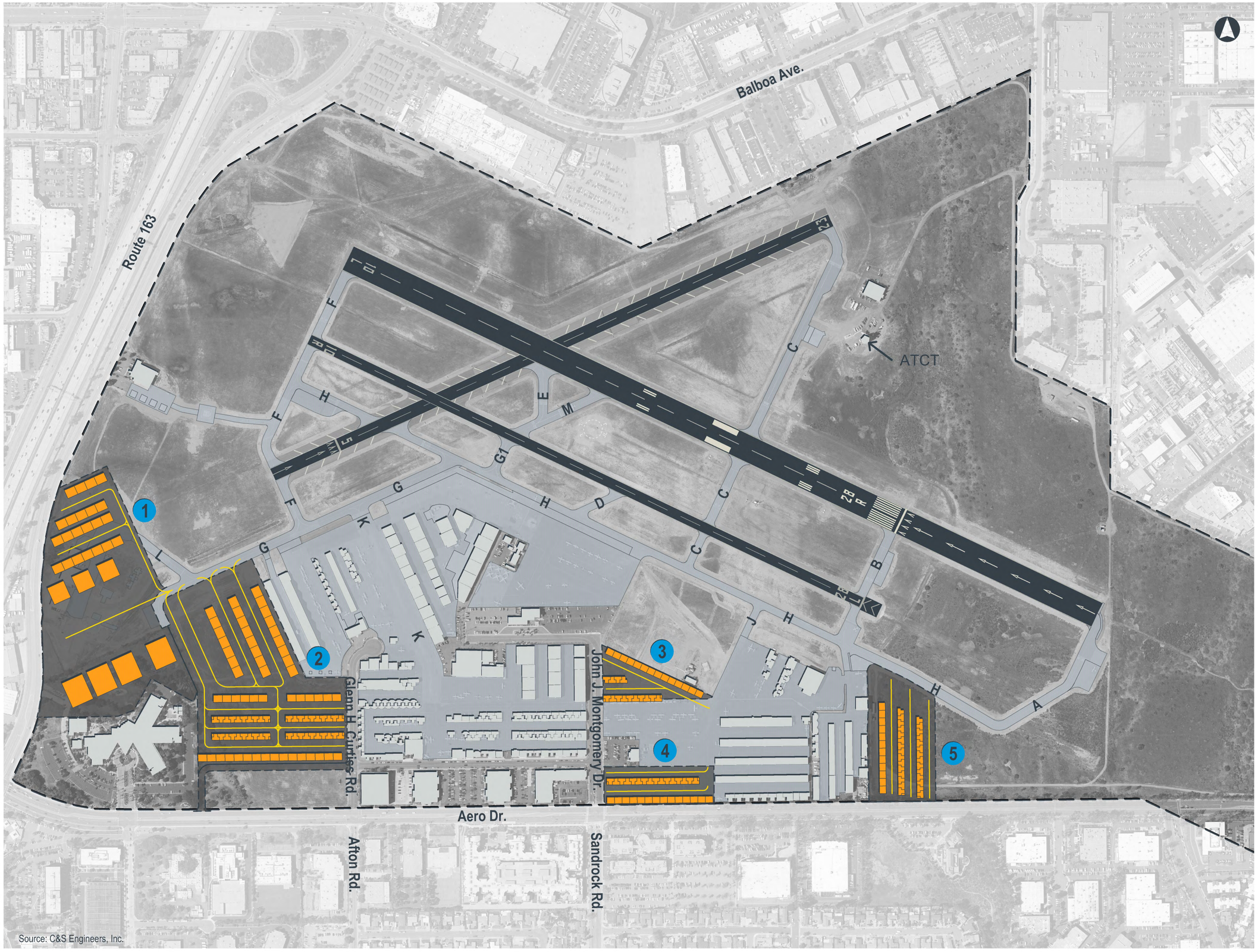
- Hangar Site 1 – Taxiway Lima West
- Hangar Site 2 – Taxiway Golf South
- Hangar Site 3 – City Triangle
- Hangar Site 4 – Gibbs Lease Hold South
- Hangar Site 5 – Taxiway Hotel South

The initial analysis examined a number of potential sites. These areas were ultimately narrowed down to the five potential locations described above, and represent the most logical areas based on the existing airfield configuration. For comparative purposes, **Table 5.1** illustrates the considerations given to each potential hangar site location.

Table 5.1 – Hangar Site Comparison

Site Designation	Location Considerations
Site 1 – Taxiway Lima West	• Large area for growth; able to meet minimum hangar demand • Proximity to roadways/freeways • Potentially keeps larger corporate traffic separated from smaller GA traffic • Easy access to taxiway/runway system • Would require the removal of approximately 390 feet of pavement from Runway 5 end to existing displaced threshold location, reacquiring property back from the hotel, and relocation of existing tenant • Somewhat isolated from other airport facilities
Site 2 – Taxiway Golf South	• Large area for growth; able to meet minimum hangar demand, plus future development • Preliminary environmentally cleared land; no construction issues once cleared • Easy access to taxiway/runway system • May require coordination with leasehold to the east • Somewhat isolated from other airport facilities
Site 3 – City Triangle	• Close to existing airport facilities; centrally located • Small area for development; cannot meet demand alone • Potential future use by adjacent leaseholder (Corporate Helicopters)
Site 4 – Gibbs Lease Hold South	• Close to existing airport facilities; centrally located • Small area for development; cannot meet demand alone • Would require the relocation of existing tie-downs and coordination with existing tenant
Site 5 - Taxiway Hotel South	• Close to taxiways/runway 28R & 28L ends • Could potentially meet the minimum amount of hangar demand • Potential environmental and grading/drainage concerns • Somewhat isolated from other airport facilities

Source: C&S Engineers, Inc.



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Figure 5.6
Proposed Hangar Locations

Legend

- Property Line
- Existing Buildings
- Proposed Buildings
- Existing Airfield Pavement
- Proposed Airfield Pavement
- Proposed Taxiway/Taxilane Centerline

250' 0' 250' 500'

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Transient Aircraft Parking Apron

Like the small hangars at MYF, the available aircraft parking apron areas have begun to reach capacity, particularly the transient (or visiting) aircraft apron. The results of the apron area demand analysis conducted in **Section 3 – *Facility Requirements*** indicate the Airport is in need of approximately 21,000 square-yards of additional transient parking apron, which is slightly more than double what exists currently. The overflow of aircraft from the based aircraft parking aprons has begun to occur onto the main transient apron, which as previously mentioned in the **Section 3 – *Facility Requirements***, is located adjacent to the terminal building and the Crownair FBO on the south side of the airfield. Due to this encroachment and the anticipation of continued growth of itinerant operations, the desire to identify additional transient apron space at MYF was the second highest priority, as described above. The apron area demand analysis also indicated the Airport is in need of a minimal amount of additional based aircraft apron – approximately 600 square yards – over the course of the 20-year planning period. Because the estimated based aircraft apron area is relatively small, its addition to the alternatives will be included in conjunction with the additional T-hangar development.

Proposed Transient Apron Locations

Much like the potential hangar sites discussion, several sites on the airfield were examined to identify the most optimal location for additional transient aircraft parking. At most GA airports, the optimal location for the transient parking apron is adjacent to, or very near, the terminal and/or FBO facilities, as these locations are usually centrally located and have easy access to roadways. Today at MYF, the majority of existing transient apron is conveniently located adjacent to the terminal building, as well as one FBO. The desire to preserve the convenience of the current location resulted in only a few options being identified for the additional area. Likewise, two potential locations were removed from further consideration after determining one site would better serve as the aircraft run-up and hold bay area (discussed in **Section 5.3** above), and the second was already aligned with an existing tenant's future expansion plans, according to the terms of their lease with the City. With the loss of these two options, only four other feasible areas remained. **Figure 5.7** depicts the proposed transient aircraft parking apron locations. These areas have been designated as follows:

- Transient Apron Site 1 – Taxiway Lima West
- Transient Apron Site 2 – Taxiway Golf South
- Transient Apron Site 3 – Existing and Expanded Terminal Apron
- Transient Apron Site 4 – City Triangle

As discussed above, the location of the transient parking apron is often co-located with the terminal building. Another top priority for the Airport included an expanded and refurbished terminal building or an expanded new construction terminal building. As such, it is important to note that the ultimate location of the transient apron may depend heavily upon where the proposed terminal facility is located. Again, for comparative purposes, **Table 5.2** demonstrates the considerations given to each potential transient apron location.

Table 5.2 – Transient Apron Site Comparison

Site Designation	Location Considerations
Site 1 – Taxiway Lima West	• Large area for growth; provides approx. 25,700 SY of apron[1] • Proximity to roadways/freeways • Would require the removal of approximately 390 feet of pavement from Runway 5 end to existing displaced threshold location • Isolated from the terminal and other airport facilities
Site 2 – Taxiway Golf South	• Large area for growth; provides approx. 46,500 SY of apron[1] • Proximity to roadways/freeways • Isolated from the terminal and other airport facilities
Site 3 – Existing and Expanded Terminal Apron	• Requires the least amount of new pavement • Centrally located; easy access to the terminal and other facilities • Provides approx. 35,300 SY of apron[1] • Reconfiguration and restriping could limit access by larger corporate aircraft
Site 4 – City Triangle	• Centrally located; easy access to the terminal and other facilities • Cannot provide the minimum required apron alone; provides approx. 10,700 SY of apron[1] • Potential future use by adjacent leaseholder (Corporate Helicopters)

Notes: [1]Based on the configuration shown for the site in Figure 5.7. SY = Square yards
Source: C&S Engineers, Inc.

Each site described above may not provide all the needed apron area individually. Therefore, it is possible the ultimate location will be a combination of two or more sites. Also, Site 3 assumes the existing apron near the terminal will not only be expanded to the south and east, but the tie-down layout will be reconfigured to make more efficient use of the space. Finally, the location of the terminal building, whether in its current location or at a new location, will most likely determine the final proposed additional transient apron area. The next section addresses the potential terminal location sites.

Balboa Ave.

Route 163

Aero Dr.

Glenn H. Curtiss Rd.

John J. Montgomery Dr.

Afton Rd.

Sandrock Rd.

ATCT

1

2

3

4

Source: C&S Engineers, Inc.

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Montgomery-Gibbs Executive Airport Master Plan

Figure 5.7
Proposed Transient Apron Locations

Legend

- Property Line
- Existing Buildings
- Existing Airfield Pavement
- Proposed Airfield Pavement
- Proposed Taxiway/Taxilane Centerline
- Proposed Aircraft Tie-Downs

250' 0' 250' 500'

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Terminal Building

One of the top priorities of the Airport is to address the aging and confined space of the existing terminal building. The maintenance upkeep, as well as the increasing lack of space for MYF personnel, are the driving factors behind the need for a larger, modernized facility. Findings of the GA terminal area demand analysis completed within the **Section 3 – *Facility Requirements*** also support this need. The existing City terminal building is approximately 10,000 square feet, while the estimated common space of the two FBOs on the airfield totals approximately 6,600 square feet. Within the terminal demand analysis, this combined space was utilized, along with a modified itinerant design hour to calculate the required terminal space needed over the course of the planning period. Based on current activity at the Airport, approximately 20,700 square feet should be dedicated to the terminal facility, meaning a deficit of just over 4,000 square feet presently exists. Furthermore, the total projected terminal space required in the year 2037 is estimated to be 22,950 square feet. Assuming the two FBO common spaces remain the same size, the City terminal space should be increased by approximately 6,400 square feet, totaling approximately 16,400 square feet.

Proposed Terminal Building Locations

The Airport's existing configuration, along with the desire to maintain the terminal's central location near the FBOs, vehicle parking, and access roadways led to identification of only a few potential future locations. As noted above, keeping the transient parking apron somewhat co-located with the future terminal remained a goal while identifying potential sites. As a result of these criteria, several areas initially proposed, such as in the far northwest corner of the airfield and in the existing Spider's leasehold southwest of the Runway 5 threshold, were eliminated from further consideration mainly due to the distance from other amenities. **Figure 5.8** depicts the proposed terminal building locations, which have been designated as follows:

- Site 1 – Existing Location (Expand and Refurbish)
- Site 2 – City Triangle
- Site 3A – Gibbs Lease Hold North
- Site 3B – Gibbs Lease Hold South

These potential sites represent the most logical areas on the Airport for a terminal building location. **Table 5.3** illustrates several considerations given to each potential terminal building location.

Table 5.3 – Terminal Building Site Comparison

Site Designation	Location Considerations
Site 1 – Existing Location (Expand and Refurbish)	• Centrally located; users familiar with the location • Potentially less expensive than new building construction • Limits the amount of transient apron that can be added in the area • Utilizes the existing vehicle parking lot
Site 2 – City Triangle	• Centrally located • Opens existing terminal location for additional transient apron, but only minimally • Would require construction of a new building • Would require coordination with adjacent leaseholder (Corporate Helicopters)
Site 3A – Gibbs Lease Hold North	• Centrally located • Would require construction of a new building • Could make use of the existing Gibbs vehicle parking lot, but would still require additional parking area • Displaces a small number of existing tie-downs; coordination with existing tenant needed • Pairs well with the adjacent triangle parcel if used for transient apron
Site 4 – Gibbs Lease Hold South	• South-central location • Would require construction of a new building • Could make use of the existing Gibbs vehicle parking lot, but would still require additional parking area • Displaces a small number of existing tie-downs; coordination with existing tenant needed • Farther away from existing transient apron and potential future transient apron (triangle parcel)

Source: C&S Engineers, Inc.

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Figure 5.8
Proposed Terminal Building Locations

Legend

- Property Line
- Existing Buildings
- Proposed Buildings
- Existing Airfield Pavement
- Proposed Airfield Pavement

250' 0' 250' 500'

Balboa Ave.
Route 163
ATCT
Glenn H. Curtiss Rd.
John J. Montgomery Dr.
Aero Dr.
Afton Rd.
Sandrock Rd.
1
2
3a
3b

Source: C&S Engineers, Inc.

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Ancillary Support Facilities

The above sections identified the Airport's top three priorities from a landside perspective based on the forecasted aviation demand. However, there are also several ancillary items the City and users have identified as important support facilities that should be considered within the 20-year planning period. These support facilities include aircraft wash racks, a public recreational viewing area, and a central fuel facility.

The aircraft wash rack facilities have been a frequent request from the based aircraft tenants for some time. Thus, several locations have been proposed around the airfield for consideration. Another important support facility based on feedback from the public is a designated recreational viewing area where aviation enthusiasts and others can go to relax and enjoy the view of the Airport and its aircraft. This area would be outside of the secure fence line and ideally offer some type of greenspace or landscaped area. No definitive plans have been developed yet for this site, but the City desires to preserve a potential location for the area within this master plan for future development. Finally, the City has indicated there is a potential need for a self-service aircraft fuel island at the Airport. The need is anticipated should an increase in based aircraft continue to occur within the planning period. The proposed locations for these ancillary items are shown on select alternative renderings (where applicable), which allowed evaluators to weigh each option and make recommendations as to the preferred location(s) of these support facilities. The Airport is supportive of an unleaded alternative to 100LL being offered at the Airport and is looking to develop incentive programs to promote the retail sale of unleaded fuel. However, the deployment of this type of fuel will likely be dependent on the current status of FAA approval of a fleet-wide alternative and the decision by a fuel provider to stock and sell the fuel at MYF.

Potential non-aeronautical land uses for the rectangular portion of undeveloped land north of Aero Drive and in between the Four Points by Sheraton hotel and Glenn H. Curtiss Road are being evaluated as part of the Kearny Mesa Community Plan Update. For this reason, proposed development in this area was not analyzed as part of this Master Plan, but an area for it is reserved on the ALP.

5.5 Landside Alternatives Development

Again, the City of San Diego has a defined vision for the future of the Airport. Based on this vision, input from the public, and the considerations described above for potential locations of the three key landside components, several landside development alternatives emerged. These alternatives are designated as follows:

Landside Alternative 1 – No Action

This alternative involves maintaining the existing layout, size, and configuration of all associated landside buildings and ancillary facilities over the course of the planning period. **Figure 5.2** depicts the No Action alternative.

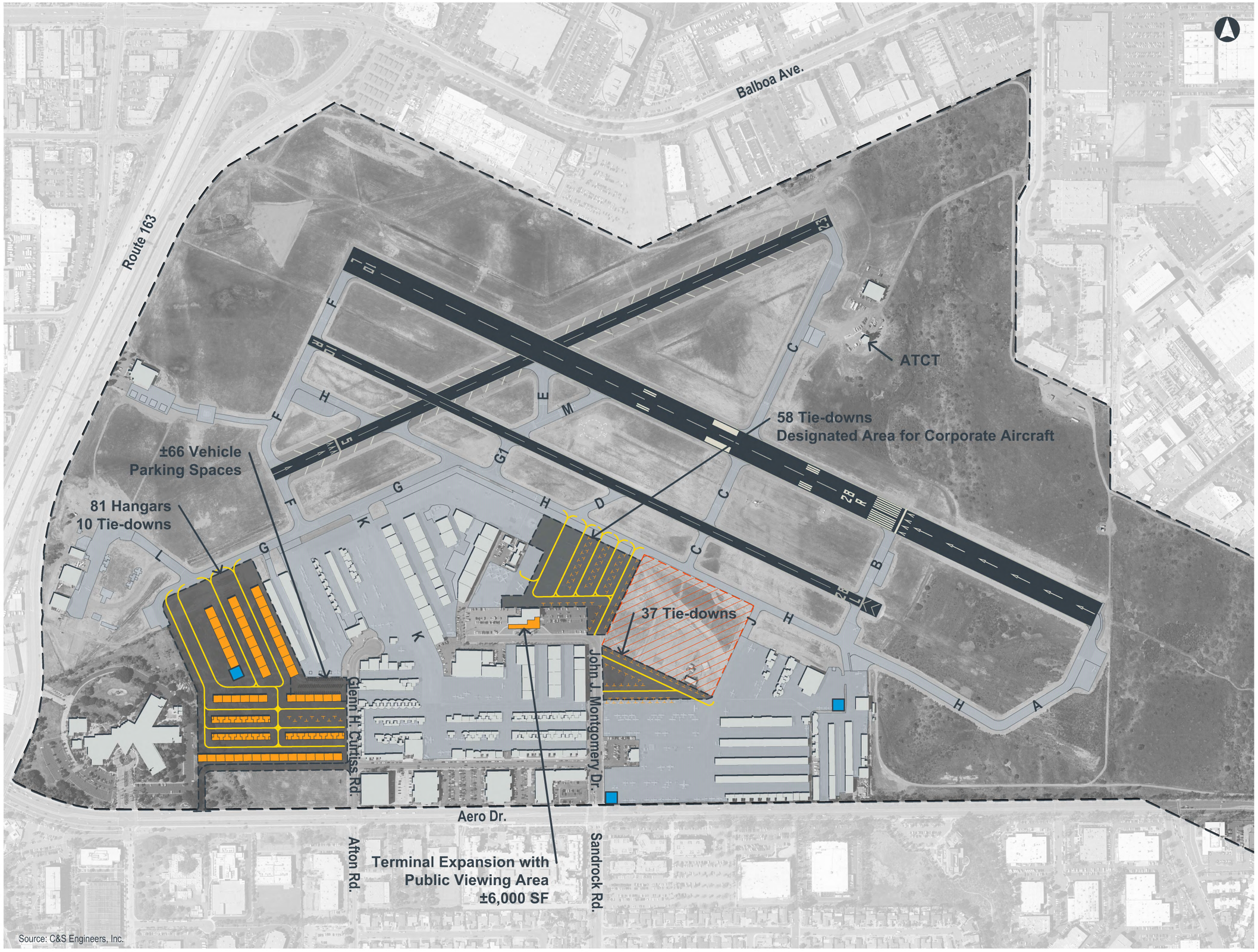
Landside Alternative 2 – Smooth Transition

This alternative presents options for the terminal building, transient aircraft parking apron, and hangars that will meet the minimum required demand with the least amount of financial and environmental impact to the City. This includes using existing City land and facilities needed for development as much as possible and minimizing the amount of undisturbed land, or land already leased to other tenants. Components of this alternative are depicted in **Figure 5.9** and include:

- **Hangar Site 2** – This site proves the least challenging for the construction of new hangars because it is in the City's control, has been removed from the City's Multi-Habitat Planning Area (MHPA) for development, is not impacted by any of the airfield's imaginary surfaces, and does not displace any existing tenants. There is room on this site to construct the minimum 25 T-hangars or small single-aircraft box hangars with additional space for future expansion, as well as a based aircraft apron (or additional transient apron if needed). This area also has sufficient room to construct additional vehicle parking spaces to replace those lost around the terminal building as discussed below.

- ***Transient Apron Sites 3 and 4*** – Neither Site 3 nor Site 4 alone will provide the approximate 21,000 square yards of transient aircraft parking apron needed over the course of the 20-year planning period. However, reconfiguring the layout in Site 3, plus the addition of part of the existing terminal building automobile parking lot, combined with Site 4 provides approximately 13,000 square yards of additional aircraft apron. The remaining requirement for transient apron can be made up using a portion of Hangar Site 2.

- **Terminal Site 1** – Expand the existing terminal footprint to the south to include an additional 6,000 square feet of space; refurbish the remainder of the building to match newly constructed portion; utilize the existing adjacent vehicle parking lot, but eliminate approximately 45 spaces; convert the existing restaurant balcony to a public viewing area, including a greenspace/picnic area on the ground level.



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Figure 5.9
Landside Alternative 2
Smooth Transition

Legend

- Property Line
- Existing Buildings
- Proposed Buildings
- Existing Airfield Pavement
- Proposed Airfield Pavement
- Corporate Helicopters Leasehold
- Proposed Taxiway/Taxilane Centerline
- Proposed Aircraft Tie-Downs
- Proposed Wash Rack

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Landside Alternative 3 – Reconfiguration

This alternative presents options for the terminal building, transient aircraft parking apron, and hangars that will meet the minimum required demand, but in a manner that will optimize space to the extent possible while remaining centrally located to existing facilities and utilizing City land. Components of this alternative are depicted in **Figure 5.10** and include:

- **Hangar Sites 2 and 5** – The same logic described above also applies in this scenario; most importantly, this land is under the City's control and provides adequate room for the minimum amount of required hangars, plus some room for expansion. Furthermore, in this option, the addition of Hangar Site 5 allows the City or private developer the option to construct small hangars in this area. This site may be somewhat more constrained due to potential environmental and drainage concerns, which would require further investigation and clearance prior to any construction activities.

- **Transient Apron Sites 3 and 4** – In this option, Site 3 will be entirely used for apron (assumes the relocation of the terminal building, described below), while only a portion of Site 4 would be used for apron. A combined total of approximately 14,000 square yards would result from utilizing Site 3 and Site 4 in this option. With the added space and reconfiguration, Site 3 would allow for some larger corporate transient aircraft parking. The remaining requirement for transient apron can be made up using a portion of Hangar Site 2.

- **Terminal Site 2** – This option proposes that a new terminal building be constructed within the City Triangle parcel adjacent to John J. Montgomery Drive. As described above, this would allow the area where the terminal exists now to be converted to transient apron space. Construction of a new vehicle parking lot would also be included adjacent to the proposed terminal. Allocated vehicle parking spaces would be split between this location and a proposed lot near Hangar Site 2. This option allows construction of a new, modern facility approximately 16,000 square feet in size on City-controlled land. Additional transient apron space would also be located adjacent to the new terminal more conducive to smaller single-engine aircraft, freeing up space within the proposed north apron area for larger turboprop and jet transient aircraft.

Balboa Ave.

Route 163

Public Viewing Area

ATCT

82 Tie-downs
Designated Area for Corporate Aircraft

±66 Vehicle
Parking Spaces

81 Hangars
10 Tie-downs

±92 Vehicle
Parking Spaces

41 Hangars

15 Tie-downs

New Terminal
±16,000 SF

Glenn H. Curtiss Rd.

John J. Montgomery Dr.

Aero Dr.

Afton Rd.

Sandrock Rd.

Source: C&S Engineers, Inc.

SD Airports

Montgomery-Gibbs Executive
Airport Master Plan

Figure 5.10
Landside Alternative 3 Reconfiguration

Legend

- Property Line
- Existing Buildings
- Proposed Buildings
- Existing Airfield Pavement
- Proposed Airfield Pavement
- Proposed Demolition
- Corporate Helicopters Leasehold
- Proposed Taxiway/Taxilane Centerline
- Proposed Aircraft Tie-Downs
- Proposed Wash Rack

250' 0' 250' 500'

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Landside Alternative 4 – Fresh Perspective

This alternative presents options for the terminal building, transient aircraft parking apron, and hangars that will meet the minimum required demand but also preserves land for future aeronautical development beyond the 20-year planning period. It is similar to Alternative 3, but would have the most impact on the City from a financial and environmental standpoint, as well as require existing leaseholds to be renegotiated or relocated and consideration given to the airfield's imaginary surfaces. Components of this alternative are depicted in **Figure 5.11** and include:

- **Hangar Sites 1, 2, and 5** – Hangar Site 2 provides adequate space for T-hangars and small single-aircraft box hangars throughout the 20-year planning period based on the logic used in the previous Alternative options. Hangar Site 2 will also include a small amount of based aircraft parking apron and a designated vehicle parking lot of approximately 66 spaces. This option also incorporates the use of Hangar Site 1; this site would provide adequate space for some larger corporate hangars and apron space, as well as additional single-aircraft box hangars should the demand for hangar space continue to increase beyond the projected demand. As noted above, Hangar Site 2 has very minimal impacts on development. However, the addition of Hangar Site 1 to this option requires more coordination on the City's behalf. It assumes that a large portion of the adjacent hotel property will, in fact, be reallocated back to the City, requires renegotiation with an existing tenant (Spider's leasehold) to develop a portion of the proposed site, and depends on the removal of pavement from the Runway 5 end. As described in Alternative 3, Hangar Site 5 will still be shown as a potential location for hangars as well.

- **Transient Apron Sites 3 and 4** – In this option, both Sites will be entirely used for transient apron (again assumes the relocation of the terminal building), allowing for approximately 18,000 square yards of apron space. Site 3 once reconfigured would allow for some parking of smaller single-engine aircraft, but would also create more space for larger jet aircraft parking. Likewise, Site 4 could be entirely used for parking of smaller aircraft, essentially creating some barrier between the smaller GA piston aircraft and the larger corporate turbine aircraft. The remaining requirement for transient apron can be made up using a portion of Hangar Site 2.

- **Terminal Site 3A** – This option proposes that a new terminal building be constructed within the northwestern portion of the existing Gibbs Flying Service leasehold adjacent to John J. Montgomery Drive. As described above, this would allow the area where the terminal exists now to be converted entirely to transient apron space. It would also allow the entire City Triangle parcel (Apron Site 4) to be used for transient parking and provide convenient access to the new terminal. The existing Gibbs vehicle parking lot could also be utilized, but would need to be expanded to the south in order to accommodate the required amount of vehicle parking spaces needed over the planning period (including a small lot near Hangar Site 2 to accommodate based aircraft owners' parking needs). This option, therefore, would require the City to renegotiate the terms of the existing lease with Gibbs Flying Service, or reacquire the parcel once their existing lease term expires.

Balboa Ave.

Route 163

Public Viewing Area

ATCT

78 Tie-downs
Designated Area for Corporate Aircraft

22 Hangars
7 Corporate Hangars

±66 Vehicle Parking Spaces

37 Tie-downs

41 Hangars

New Terminal
±16,000 SF

±150 Vehicle Parking Spaces

61 Hangars
10 Tie-downs

Glenn H. Curtiss Rd.

John J. Montgomery Dr.

Aero Dr.

Afton Rd.

Sandrock Rd.

Source: C&S Engineers, Inc.

SD Airports

Montgomery-Gibbs Executive Airport Master Plan

Figure 5.11
Landside Alternative 4 Fresh Perspective

Legend

- Property Line
- Existing Buildings
- Proposed Buildings
- Existing Airfield Pavement
- Proposed Airfield Pavement
- Proposed Demolition
- Corporate Helicopters Leasehold
- Proposed Taxiway/Taxilane Centerline
- Proposed Aircraft Tie-Downs
- Proposed Wash Rack
- Potential Fuel Island Location Options

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PAC and Public Review

The Airport Master Plan PAC and public evaluated the aforementioned alternatives and provided input and recommendations for the planning team's consideration. While the comments and recommendations varied on each alternative, several recurring themes emerged from the PAC and public's review and input. The more significant concerns and suggestions provided by both entities included the following:

- There was significant support for leaving the terminal in its existing location, as well as for significantly renovating the existing building or constructing a new building in the same footprint. Requests related to the terminal also included the need for ample parking and accessibility to transient aircraft parking.
- There was strong support for the inclusion of a public viewing area in every alternative; however, some would have liked more details to be provided such as vehicle parking, access, amenities, and security.
- Hangar Site 5 (Taxiway Hotel South) had strong support, but the potential environmental constraints are a likely hindrance to development in the area as noted by most.
- Hangar Site 2 (Taxiway Golf South) was well supported, although a common concern was the distance that would be required for taxiing aircraft to the Runway 28R/L thresholds.
- Hangar Site 1 (Taxiway Lima West) had overwhelming support with no reported opposition.
- The proposed multiple wash racks were also widely supported with the exception of the location positioned closest to Aero Drive.

The above items summarize the majority of the most frequent or common input received from the PAC and public regarding the presented landside alternatives. All PAC and public comments related to the proposed alternatives can be found in **Appendix K**.

5.6 Alternatives Evaluation Criteria

The evaluation of the alternatives followed the criteria as found in FAA's AC 150/5070-6B, *Airport Master Plans* and included the following:

- Financial Feasibility
- Operational Performance
- Environmental Implications
- Best Planning Tenets

Financial Feasibility

This analysis considers the impacts of a particular alternative in relation to the Airport's economic viability, as well as that of the surrounding community. The analysis also considers the estimated development costs associated with the various alternatives, along with prospective funding sources. The following were assessed as a part of this analysis:

- Development costs – Includes anticipated costs of development and potential alternative funding sources. Alternative funding sources include those other than the City or the FAA, such as private business owners and/or developers.
- Job creation – The potential of each alternative to create employment and other economic development benefits for the Airport and immediate surrounding area.
- Financial sustainability – Anticipated opportunities for revenue generation through increased activity, new businesses, etc. in order to increase the Airport's ability to become more financially self-sufficient.

Operational Performance

An airport's ability to function as a system can be determined based on several factors:

- Capacity – The ability to accommodate future demand as determined in the facility requirements.
- Capability – The ability to meet airport design standards and ensure a safe operating environment.
- Operational efficiency – How well the alternatives work as a system to avoid delays, inefficiencies, airspace conflicts, etc. This also considers the coexistence of existing and future users.

Environmental Implications

As discussed in **Section 4 – *Environmental* Overview**, there are a number of environmental resources that may be impacted to some degree as a result of airport development. To review the NEPA environmental categories associated with MYF in detail, please refer to Section 4.4 – *Environmental Impact Analysis*. The following are the environmental criteria identified for MYF (See **Table 5.4** and **Table 5.5**):

- Air Quality
- Biological Resources (Including Fish, Wildlife, and Plants)
- Hazardous Materials, Solid Waste, and Pollution Prevention
- Land Use
- Noise and Noise-Compatible Land Use
- Climate
- Department of Transportation Act, Section 4(f)
- Historical, Architectural, Archeological, and Cultural Resources
- Visual Effects (Including Light Emissions)
- Water Resources (Including Wetlands, Floodplains, Surface Waters, Groundwater, and Wild and Scenic Rivers)

Best Planning Tenets

Several best planning tenets were selected to determine the most responsible and implementable alternative within this Airport Master Plan. These include:

- Flexibility to accommodate unforeseen change (e.g., increases or decreases in activity levels, changes to fleet mix, new users).
- Technically feasible (e.g., considers site constraints and other limitations).
- Conforms to the City's goal of creating a more attractive experience/airport for GA pilots.

5.7 Alternatives Evaluation Summary

Evaluation Criteria Descriptions and Analysis

The evaluation criteria described above were applied to each airside and landside alternative based on the initial input from the PAC and public. **Tables 5.4** and **5.5** contain a detailed summary of each alternative evaluation.

Table 5.4 – Airside Alternatives Evaluation

	Description	Alternative 1: No Action	Alternative 2: Design Deficiencies	Alternative 3: Runway Threshold Relocation	Alternative 4: Fresh Perspective
Comparative Features					
Financial Feasibility					
Development Costs	Anticipated costs of development, considering potential alternative funding sources.	No Change.	The City's share of the costs would include the amount after any FAA AIP and/or Caltrans funding is provided for eligible projects.	City's share in development costs are anticipated to be approximately 10% of project costs, due to 90% federal share of AIP grant eligible projects. Development costs will be increased over Alternative 2 due to the relocation of NAVAIDS and lighting.	City's share in development costs are anticipated to be approximately 10% of project costs, due to 90% federal share of AIP grant eligible projects. Development costs will be increased over Alternative 2 decommission of runway 5-23 and new taxiway infrastructure.
Job Creation	Via employment, economic development, etc.	No Change.	Job creation and economic development will be temporary and tied to project design and construction.	Job creation and economic development will be temporary and tied to project design and construction.	Direct job creation and economic development will be temporary and tied to project design and construction. However, an increase in airfield areas with direct airside access could attract airport development opportunities and additional employment.
Financial Sustainability	Revenue generation through increased activity and new businesses, etc. in order to increase the Airport's ability to become more financially self-sufficient.	No Change.	Projects will not create a direct impact to revenue generation.	Projects will not create a direct impact to revenue generation.	Projects will not create a direct impact to revenue generation. However, an increase in airfield areas with direct airside access could attract revenue generating airport development opportunities.
Operational Performance					
Capacity	Ability to accommodate future demand as determined in the facility requirements.	No Change.	Overall airfield capacity will increase due to the addition of and relocation / reconfiguration of existing taxiway connections. Run up area capacity increased.	Similar capacity increases to Alternative 2, with an increase in Landing Distance Available for aircraft operating on 28R. Relocation of Runway 5 end is not anticipated to impact airfield capacity.	Anticipated to increase airfield capacity by roughly 25 percent due to the elimination of Runway 5-23 crossing.
Capability	Ability to meet airport design standards and ensure a safe operating environment.	Does not address the existing design deficiencies, including FAA identified hot spot locations.	Addresses airport design deficiencies and ensures a safer operating environment.	Addresses airport design deficiencies; increases Landing Distance Available for aircraft landing on Runway 28R, and will reduce the frequency of vertically guided approaches ensuring a safer operating environment.	The removal of crosswind Runway 5-23 decreases the likelihood of runway incursions in the area. However, without a dedicated crosswind runway, small aircraft operators may potentially face unsafe landing conditions on the remaining runways when crosswinds conditions are present at the Airport

Table 5.4 – Airside Alternatives Evaluation (Continued)

	Description	Alternative 1: No Action	Alternative 2: Design Deficiencies	Alternative 3: Runway Threshold Relocation	Alternative 4: Fresh Perspective
Comparative Features					
Operational Performance (Continued)					
Operational Efficiency	How well the alternatives work as a system to avoid delays, inefficiencies, airspace conflicts, etc. Considers the coexistence of existing and future users.	No Change.	The proposed taxiway geometry modifications and additional run-up area may provide minimal improvements to efficiency.	Potential to provide slightly more operational efficiency due to the reduced number of circling operations to runway 10L, ultimately improving airspace around the Airport.	The removal of crosswind Runway 5-23 improves operational and airspace efficiency creating a parallel runway complex. However, without a dedicated crosswind runway, small aircraft operators may potentially face unsafe landing conditions on the remaining runways when crosswinds conditions are present at the Airport
Environmental Implications					
Air Quality	Anticipated change in emissions.	No Change.	There will be an increase in emissions associated with construction activity. Development is intended to accommodate projected demand and is not likely to have a significant impact on air quality.	There will be an increase in emissions associated with construction activity. Development is intended to accommodate projected demand and is not likely to have a significant impact on air quality.	There will be an increase in emissions associated with construction activity. Development is intended to accommodate projected demand and is not likely to have a significant impact on air quality.
Biological Resources (Including Fish, Wildlife, and Plants)	Adverse impacts to special status species and substantial loss, degradation, disturbance, or fragmentation of native species habitats or populations.	No Change.	Proposed development activity is located in areas identified as having low levels of biological constraint. Additional environmental review and evaluation for all proposed development will still be needed prior to construction.	MALSR location occurs in areas identified as having high levels of biological constraint. Additional environmental review and evaluation for all proposed development will still be needed prior to construction.	Significant taxiway development occurring in areas identified as having high levels of biological constraint. Additional environmental review and evaluation for all proposed development will still be needed prior to construction.
Hazardous Materials, Solid Waste, and Pollution Prevention	Involve a contaminated site, violate laws regarding hazardous materials, or produce a different quantity or type of hazardous waste.	No Change.	Development is does not impact any known contaminated sites. Therefore there is no anticipated hazardous materials impact.	Development is does not impact any known contaminated sites. Therefore there is no anticipated hazardous materials impact.	Development is does not impact any known contaminated sites. Therefore there is no anticipated hazardous materials impact.
Land Use	Compatibility of existing and planned surrounding land uses.	No Change.	The proposed development is not anticipated to have an impact on land use compatibility.	Land use modifications anticipated with RPZ relocation associated with Runway threshold and end relocations. Potential for compatibility issues associated with Runway 28R RPZ relocation.	No off airport land use modifications associated with the decommissioning of Runway 5-23. No compatibility issues anticipated.

Table 5.4 – Airside Alternatives Evaluation (Continued)

	Description	Alternative 1: No Action	Alternative 2: Design Deficiencies	Alternative 3: Runway Threshold Relocation	Alternative 4: Fresh Perspective
Comparative Features					
Environmental Implications (Continued)					
Noise and Noise-Compatible Land Use	Noise impacts on noise sensitive areas within Section 4(f) properties.	No Change.	No significant impact is anticipated.	Potential to impacts to existing noise characteristics exist due to the relocation of Runway 28R threshold coupled with a reduction of circling operations by jet airframes which require the full runway length available on Runway 10L. Noise Analysis Recommended, but no significant impact is anticipated.	Alteration of Runway 28R approach coupled with reduction of circling operations to Runway 10L. Removal of all operations on Runway 5-23 flight tracks. Noise Analysis Recommended.
Climate	Impacts to air quality due to an increase in greenhouse gas (GHG) emissions.	No Change.	There will be an increase in GHG emissions associated with construction activity. Development is intended to accommodate projected demand and is not likely to have a significant impact on climate change.	There will be an increase in GHG emissions associated with construction activity. Development is intended to accommodate projected demand and is not likely to have a significant impact on climate change.	There will be an increase in GHG emissions associated with construction activity. Development is intended to accommodate projected demand and is not likely to have a significant impact on climate change.
Department of Transportation Act, Section 4(f)	Protection of significant resources including publicly owned parks, recreational areas, wildlife refugees, and historic sites.	No Change.	The proposed development is not anticipated to have a significant effect on any Section 4(f) resources.	The proposed development is not anticipated to have a significant effect on any Section 4(f) resources.	The proposed development is not anticipated to have a significant effect on any Section 4(f) resources.
Historical, Architectural, Archeological, and Cultural Resources	Potential for project to disturb any cultural, historic, or archaeological resources at the Airport.	No Change.	Development occurs in areas with low levels of cultural constraints. However, proposed development in previously undisturbed areas has the potential to impact underground resources, thus further review and coordination would be needed prior to construction.	Development occurs in areas with low levels of cultural constraints. However, proposed development in previously undisturbed areas has the potential to impact underground resources, thus further review and coordination would be needed prior to construction.	Development occurs in areas with low levels of cultural constraints. However, proposed development in previously undisturbed areas has the potential to impact underground resources, thus further review and coordination would be needed prior to construction.
Visual Effects (Including Light Emission)	Light emission effects and changes to visual resources or visual character.	No Change.	No anticipated impact on visual effects or light emissions due to the Airport's location in an already highly developed landscape..	Runway 28R threshold placement will require relocation of the Runway 28R MALSR. No net increase or decrease in light emission anticipated. However, the potential of additional light emissions to affect any biological resources may need further evaluation prior to construction.	Removal of Runway 5-23 will ultimately reduce light emission, and therefore is not anticipated to have a significant effect on visual effects or light emissions.

Table 5.4 – Airside Alternatives Evaluation (Continued)

	Description	Alternative 1: No Action	Alternative 2: Design Deficiencies	Alternative 3: Runway Threshold Relocation	Alternative 4: Fresh Perspective
Comparative Features					
Environmental Implications (Continued)					
Water Resources (Including Wetlands, Floodplains, Surface Waters, Groundwater, and Wild and Scenic Rivers)	Water used for drinking and support functions such as recreation, transportation, agriculture, and aquatic ecosystems.	No Change.	The proposed development occurs in areas with existing surface waters and/or wetlands; additional environmental review and evaluation is needed prior to construction.	The proposed development occurs in areas with existing surface waters and/or wetlands; additional environmental review and evaluation is needed prior to construction.	The proposed development occurs in areas with existing surface waters and/or wetlands; additional environmental review and evaluation is needed prior to construction.
Best Planning Tenets					
Flexibility	Accommodates unforeseen change (e.g., increases or decreases in activity levels, changes to fleet mix, new users, etc.).	No Change.	Allows for unforeseen small fluctuations in activity levels due capacity enhancing taxiway geometry modifications. Anticipated to maintain the existing fleet mix size due to landing distances available.	Allows for unforeseen small fluctuations in activity levels due capacity enhancing taxiway geometry modifications. Accommodates unforeseen increases in fleet mix size or new users due to additional landing distance available.	Would not accommodate for potential wind pattern changes or decreases in activity levels.
Technically Feasible	Considers site constraints and other limitations.	No Change.	Technically Feasible	The proposed 28R threshold relocation has RPZ impacts, as well as potential for changes in noise footprint; therefore, the proposed development may be less technically feasible than other alternatives due to FAA Interim Guidance On Land Use within an RPZ, and City of San Diego Resolution: R-280194. Further FAA review would be necessary prior to construction.	Grant assurance requirements for Runway 5-23 may not allow for decommissioning within the planning period, and significant biological constraints exist for proposed taxiway development. Thus, the proposed development may be less technically feasible than other alternatives.
Conforms to the City's Goals	Creates a more attractive experience/Airport for GA pilots.	No Change.	Creates a safer facility which conforms to current FAA standards. Attractive additional features for GA pilots such as additional run up areas are proposed.	More attractive for GA pilots due to longer landing distance available.	Removal of crossing runway5-23 is anticipated to increase safety by reducing incursions. However this alternative will reduce attractiveness to some GA pilots due to the lack of a crosswind runway.

Source: Atkins

Table 5.5 – Landside Alternatives Evaluation

	Description	Alternative 1: No Action	Alternative 2: Smooth Transition	Alternative 3: Reconfiguration	Alternative 4: Fresh Perspective
Comparative Features					
Financial Feasibility					
Development Costs	Anticipated costs of development, considering potential alternative funding sources.	No Change.	Approximately **$29 million** in development costs, including hangars; hangars are usually funded by private developers, thus the ultimate FAA/City cost share may be less. In addition, AIP eligible projects would receive 90% FAA funding and 4.5% Caltrans funding.[1]	Approximately **$43.3 million** in development costs, including hangars; hangars are usually funded by private developers, thus the ultimate FAA/City cost share may be less. In addition, AIP eligible projects would receive 90% FAA funding and 4.5% Caltrans funding.[1]	Approximately **$69.3 million** in development costs, including hangars; hangars are usually funded by private developers, thus the ultimate FAA/City cost share may be less. In addition, AIP eligible projects would receive 90% FAA funding and 4.5% Caltrans funding.[1]
Job Creation	Via employment, economic development, etc.	No Change.	Some temporary employment opportunities tied to project design and construction would occur; non-aeronautical land parcel will contribute to the economic development of the surrounding area.	Some temporary employment opportunities tied to project design and construction would occur; non-aeronautical land parcel will contribute to the economic development of the surrounding area.	Some temporary employment opportunities tied to project design and construction would occur, but slightly more potential to add permanent employment tied to Hangar Site 1 exists compared to the other alternatives; non-aeronautical land parcel will contribute to the economic development of the surrounding area.
Financial Sustainability	Revenue generation through increased activity and new businesses, etc. in order to increase the Airport's ability to become more financially self-sufficient.	No Change.	May provide some increase in activity and new business generation.	May provide slightly more of an increase in activity and new business than Alternative 2.	Potential to provide the biggest increase in activity and new business compared to the other Alternatives.
Operational Performance					
Capacity	Ability to accommodate future demand as determined in the facility requirements.	Does not accommodate future demand.	Meets minimum future demand for the terminal building, hangars, and transient apron. Preserves additional space for hangars should demand continue to increase.	Meets minimum future demand for the terminal building, hangars, and transient apron. Preserves additional space for hangars should demand continue to increase.	Meets minimum future demand for the terminal building, hangars, and transient apron; Preserves additional space for hangars and a potential location for corporate aircraft complex should demand continue to increase.
Capability	Ability to meet airport design standards and ensure a safe operating environment.	No change. (Existing taxilanes do not meet current design standards.)	Meets airport design standards and supports a safe operating environment.	Meets airport design standards and supports a safe operating environment.	Meets airport design standards and supports a safe operating environment.
Operational Efficiency	How well the alternatives work as a system to avoid delays, inefficiencies, airspace conflicts, etc. Considers the coexistence of existing and future users.	No Change.	Somewhat of an improvement in operational efficiency.	Somewhat of an improvement in operational efficiency.	Potential to provide the most operational efficiency by increasing the distance between corporate jet aircraft and piston recreational aircraft operating areas.

Note: [1]Airport Improvement Program (AIP) eligibility is defined in the most recent AIP Handbook available at: https://www.faa.gov/airports/aip/aip_handbook/

Table 5.5 – Landside Alternatives Evaluation (Continued)

	Description	Alternative 1: No Action	Alternative 2: Smooth Transition	Alternative 3: Reconfiguration	Alternative 4: Fresh Perspective
Comparative Features					
Environmental Implications					
Air Quality	Anticipated change in emissions.	No Change	There will be an increase in emissions associated with construction activity. Development is intended to accommodate projected demand and is not likely to have a significant impact on air quality.	There will be an increase in emissions associated with construction activity. Development is intended to accommodate projected demand and is not likely to have a significant impact on air quality.	There will be an increase in emissions associated with construction activity. Development is intended to accommodate projected demand and is not likely to have a significant impact on air quality.
Biological Resources (Including Fish, Wildlife, and Plants)	Adverse impacts to special status species and substantial loss, degradation, disturbance, or fragmentation of native species habitats or populations.	No Change.	The proposed development occurs in areas previously identified as having the presence of biological resources (Hangar Site 2) with moderate to high levels of constraint; however, this area was recently (February 2018) released from the City's Multi-habitat Planning Area (MHPA) for development. Additional environmental review and evaluation for all proposed development will still be needed prior to construction.	Proposed development occurs in areas previously identified as having the presence of biological resources (Hangar Site 5) with moderate to high levels of constraint; this area would require removal from the City's MHPA prior to any construction. Furthermore, additional environmental review and evaluation for all proposed development will still be needed prior to construction.	Proposed development occurs in areas previously identified as having the presence of biological resources (Hangar Sites 2 and 5); Hangar Site 2 has been removed from the City's MHPA and may now include development, whereas Hangar 5 five is still included in the MHPA and would require removal from the MHPA prior to any development. Furthermore, additional environmental review and evaluation for all proposed development is needed prior to construction.
Hazardous Materials, Solid Waste, and Pollution Prevention	Involve a contaminated site, violate laws regarding hazardous materials, or produce a different quantity or type of hazardous waste.	No Change.	Due to the nature of airport activities, the potential to encounter a range of containments during ground-disturbing activities associated with the proposed development exists; the potential to encounter containments associated with leaking underground storage tanks is possible within proposed apron development Sites 3 and 4. Additional environmental review and evaluation is needed prior to construction.	Due to the nature of airport activities, the potential to encounter a range of containments during ground-disturbing activities associated with the proposed development exists; the potential to encounter containments associated with leaking underground storage tanks is possible within proposed apron development Sites 3 and 4. Additional environmental review and evaluation is needed prior to construction.	Due to the nature of airport activities, the potential to encounter a range of containments during ground-disturbing activities associated with the proposed development exists; the potential to encounter containments associated with leaking underground storage tanks is possible within proposed apron development Sites 3 and 4. Additional environmental review and evaluation is needed prior to construction.
Land Use	Compatibility of existing and planned surrounding land uses.	No Change.	The proposed development is consistent with ongoing activities and is not anticipated to have an impact on land use compatibility.	The proposed development is consistent with ongoing activities and is not anticipated to have an impact on land use compatibility.	The proposed development is consistent with ongoing activities and is not anticipated to have an impact on land use compatibility.
Noise and Noise-Compatible Land Use	Noise impacts on noise sensitive areas within Section 4(f) properties.	No Change.	The proposed development is consistent with activities found at airports and is not anticipated to have a direct impact on noise.	The proposed development is consistent with activities found at airports and is not anticipated to have a direct impact on noise; only small portions of Hangar Site 5 occur inside of the 65-70 db CNEL noise contour.	The proposed development is consistent with activities found at airports and is not anticipated to have a direct impact on noise; only small portions of Hangar Sites 1 and 5 occur inside of the 65-70 db CNEL noise contour.

Table 5.5 – Landside Alternatives Evaluation (Continued)

	Description	Alternative 1: No Action	Alternative 2: Smooth Transition	Alternative 3: Reconfiguration	Alternative 4: Fresh Perspective
Comparative Features					
Environmental Implications (Continued)					
Climate	Contribution to climate change due to increased Greenhouse Gas (GHG) emissions.	No Change.	There will be an increase in GHG emissions associated with construction activity. Development is intended to accommodate projected demand and is not likely to have a significant impact on climate change.	There will be an increase in GHG emissions associated with construction activity. Development is intended to accommodate projected demand and is not likely to have a significant impact on climate change.	There will be an increase in GHG emissions associated with construction activity. Development is intended to accommodate projected demand and is not likely to have a significant impact on climate change.
Department of Transportation Act, Section 4(f)	Protection of significant resources including publicly owned parks, recreational areas, wildlife refugees, and historic sites.	No Change.	The proposed development is not anticipated to have a significant effect on any Section 4(f) resources, if at all.	Proposed development is not anticipated to have a significant effect on any Section 4(f) resources, if at all.	Proposed development in Hangar Site 1 could potentially affect three structures that have been classified as unevaluated Historic Section 4(f) resources. Further evaluation is needed prior to construction.
Historical, Architectural, Archeological, and Cultural Resources	Potential for project to disturb any cultural, historic, or archaeological resources at the Airport.	No Change.	The proposed development is not anticipated to have a significant effect on any historical, architectural, archeological, or cultural resources, if at all. However, proposed development in previously undisturbed areas has the potential to impact underground resources, thus further review and coordination would be needed prior to construction.	The proposed development is not anticipated to have a significant effect on any historical, architectural, archeological, or cultural resources, if at all. However, proposed development in previously undisturbed areas has the potential to impact underground resources, thus further review and coordination would be needed prior to construction.	Proposed development in Hangar Site 1 could potentially affect three structures that may have historical, architectural or cultural significance. Further evaluation of the structures is needed prior to construction. Furthermore, proposed development in previously undisturbed areas has the potential to impact underground resources, thus further review and coordination would be needed prior to construction.
Visual Effects (Including Light Emission)	Light emission effects and changes to visual resources or visual character.	No Change.	The proposed development is not anticipated to have a significant effect on visual effects or light emissions due to the Airport's location in an already highly developed landscape. However, the potential of additional light emissions to affect any biological resources may need further evaluation prior to construction.	The proposed development is not anticipated to have a significant affect on visual effects or light emissions due to the Airport's location in an already highly developed landscape. However, the potential of additional light emissions to affect any biological resources may need further evaluation prior to construction.	The proposed development is not anticipated to have a significant affect on visual effects or light emissions due to the Airport's location in an already highly developed landscape. However, the potential of additional light emissions to affect any biological resources may need further evaluation prior to construction.
Water Resources (Including Wetlands, Floodplains, Surface Waters, Groundwater, and Wild and Scenic Rivers)	Water used for drinking and support functions such as recreation, transportation, agriculture, and aquatic ecosystems.	No Change.	The proposed development occurs in areas with existing surface waters and/or wetlands; additional environmental review and evaluation is needed prior to construction.	The proposed development occurs in areas with existing surface waters and/or wetlands; additional environmental review and evaluation is needed prior to construction.	The proposed development occurs in areas with existing surface waters and/or wetlands; additional environmental review and evaluation is needed prior to construction.

Table 5.5 – Landside Alternatives Evaluation (Continued)

	Description	Alternative 1: No Action	Alternative 2: Smooth Transition	Alternative 3: Reconfiguration	Alternative 4: Fresh Perspective
Comparative Features					
Best Planning Tenets					
Flexibility	Accommodates unforeseen change (e.g., increases or decreases in activity levels, changes to fleet mix, new users, etc.).	No Change.	Allows for unforeseen change should demand warrant.	Allows for unforeseen change should demand warrant.	Allows for unforeseen change should demand warrant.
Technically Feasible	Considers site constraints and other limitations.	No Change.	All future development occurs on land under direct control of the City, thus making it the most technically feasible Alternative.	Technically feasible, but with limitations; would require development in an environmentally sensitive area.	Technically feasible, but with limitations greater than Alternative 2; would require development in an environmentally sensitive area and coordination with existing leaseholds.
Conforms to the City's Goals	Creates a more attractive experience/Airport for GA pilots	Does not conform to the City's goals for the Airport.	Creates a more attractive experience for GA pilots by increasing capacity in key landside facilities, i.e. aircraft parking and storage and pilot amenities.	Creates a more attractive experience for GA pilots by increasing capacity in key landside facilities, i.e. aircraft parking and storage and pilot amenities.	Creates a more attractive experience for GA pilots by increasing capacity in key landside facilities, i.e. aircraft parking and storage and pilot amenities.

Source: C&S Engineers, Inc.

Evaluation Scoring

Based on the qualitative and quantitative assessments presented, each evaluation criteria was assigned a comparative rating. Similar to the Consumer Reports' system, the rating system uses a modified circle that visually communicates the qualitative assessment. The assessments were translated numerically, as depicted in **Table 5.6**.

Table 5.6 – Alternative Evaluation Rating Values

Negative (-1)	Neutral (0)	Positive (+1)
		

Source: C&S Engineers, Inc.

The environmental category criteria outnumbered the criteria in other categories; thus, to ensure balanced results, the environmental category was weighted accordingly to equate to the other categories. A summary of the alternatives' evaluation scorings is presented in **Tables 5.7** and **5.8**.

Table 5.7 – Airside Alternatives Evaluation Summary

Airside Alternatives

○ -1 : Negative ◑ 0 : Neutral ● +1 : Positive	Alternative 1: No Action	Alternative 2: Design Deficiencies	Alternative 3: Runway Threshold Relocation	Alternative 4: Fresh Perspective
Comparative Features				
Financial Feasibility				
Development Costs	●	○	○	○
Job Creation	◑	◑	◑	◑
Financial Sustainability	◑	◑	◑	●
Operational Performance				
Capacity	◑	●	●	●
Capability	○	●	●	◑
Operational Efficiency	○	●	●	◑
Environmental Implications				
Air Quality	◑	◑	◑	◑
Biological Resources (Including Fish, Wildlife, and Plants)	◑	◑	○	○
Hazardous Materials, Solid Waste, and Pollution Prevention	◑	◑	◑	◑
Land Use	◑	◑	○	○
Noise and Noise-Compatible Land Use	◑	◑	○	○
Climate	◑	◑	◑	◑
Department of Transportation Act, Section 4(f)	◑	◑	◑	◑
Historical, Architectural, Archeological, and Cultural Resources	◑	◑	◑	◑
Visual Effects (Including Light Emission)	◑	◑	◑	●
Water Resources (Including Wetlands, Floodplains, Surface Waters, Groundwater, and Wild and Scenic Rivers)	◑	◑	◑	◑

Table 5.7 – Airside Alternatives Evaluation Summary (Continued)

Airside Alternatives

○ -1 : Negative ◑ 0 : Neutral ● +1 : Positive	Alternative 1: No Action	Alternative 2: Design Deficiencies	Alternative 3: Runway Threshold Relocation	Alternative 4: Fresh Perspective
Comparative Features				
Best Planning Tenets				
Flexibility	◑	◑	◑	○
Technically Feasible	◑	●	○	○
Conforms to the City's Goals	○	●	●	◑
Summary Score				
Summary Score	-2	4	1.1	-1.6
Ranking				
Ranking	**4**	**1**	**2**	**3**

Source: Atkins

Table 5.8 – Landside Alternatives Evaluation Summary

Landside Alternatives

○ -1 : Negative ◑ 0 : Neutral ● +1 : Positive	Alternative 1: No Action	Alternative 2: Smooth Transition	Alternative 3: Reconfiguration	Alternative 4: Fresh Perspective
Comparative Features				
Financial Feasibility				
Development Costs	●	○	○	○
Job Creation	◑	●	●	●
Financial Sustainability	○	●	●	●
Operational Performance				
Capacity	○	●	●	●
Capability	○	●	●	●
Operational Efficiency	◑	◑	◑	●
Environmental Implications				
Air Quality	◑	○	○	○
Biological Resources (Including Fish, Wildlife, and Plants)	◑	○	○	○
Hazardous Materials, Solid Waste, and Pollution Prevention	◑	◑	◑	◑
Land Use	◑	◑	◑	◑
Noise and Noise-Compatible Land Use	◑	◑	◑	◑
Climate	◑	○	○	○
Department of Transportation Act, Section 4(f)	◑	◑	◑	○
Historical, Architectural, Archeological, and Cultural Resources	◑	◑	◑	○
Visual Effects (Including Light Emission)	◑	◑	◑	◑
Water Resources (Including Wetlands, Floodplains, Surface Waters, Groundwater, and Wild and Scenic Rivers)	◑	○	○	○

Table 5.8 – Landside Alternatives Evaluation Summary (Continued)

Landside Alternatives

○ -1 : Negative ◑ 0 : Neutral ● +1 : Positive	Alternative 1: No Action	Alternative 2: Smooth Transition	Alternative 3: Reconfiguration	Alternative 4: Fresh Perspective
Comparative Features				
Best Planning Tenets				
Flexibility	○	●	●	●
Technically Feasible	◑	●	○	○
Conforms to the City's Goals	○	●	●	●
Summary Score				
Summary Score	-4	5	2.8	3.2
Ranking				
Ranking	**4**	**1**	**3**	**2**

Source: C&S Engineers, Inc.

5.8 Recommended Preferred Alternative Development

Recommended Preferred Alternative

The initial input from the PAC and public allowed the planning team to evaluate each alternative for the airside and landside portions of the Airport using the criteria described. As a result, a combined recommended alternative was developed based on the highest ranking airside and landside alternatives. As shown in **Table 5.7** and **Table 5.8**, Alternative 2 in both instances was ranked the highest and was used as the basis for the airside and landside recommended preferred alternative. However, based on the detailed alternatives evaluation and input from the City, PAC, and public, certain components found within other Alternative scenarios that received a high amount of support were carried over into the recommended preferred alternative to provide the most value to the stakeholders and produce the most cohesive alternative. The resulting Recommended Preferred Alternative was presented to the City for final review and approval. The City sought the feedback of the Airports Advisory Committee (AAC) and the AAC took action approving the preferred alternative (with certain conditions). The final alterations are detailed as follows:

Airside

- The removal of 390 feet of pavement on the Runway 5 end, as well as portions of Taxiway Foxtrot as shown in **Figure 5.4**, received favorable input. Shortening the runway will allow the Runway 5 RPZ to remain free of the area south of Taxiway Foxtrot and north of Taxiways Lima and Golf for future aeronautical development should demand require this in the future.
- Removal of Runway 28R displaced threshold as illustrated in **Figure 5.4** and **Figure 5.5**.
- Reconfiguration of Hot Spot 1 to include the removal of Taxiways Echo and Mike, with a new 90-degree taxiway intersection as depicted in **Figure 5.2**.
- Installation of Runway Guard Lights on Taxiway F and 10R hold bars.
- Realignment of Taxiway Alpha to standardize the Runway 28R entrance geometry to a 90-degree entrance. This option proposes the removal of unusable run-up area pavement north of the hold bar location, while adding additional hold bay capacity south of the existing run-up area.

Landside

- Hangar Sites 1 and 2, as depicted in **Figure 5.6** received a great deal of support from the City, PAC, and public as a potential location for additional development. The concept of separating the jet and turboprop aircraft from the smaller single- and multi-engine piston aircraft seemed to be one of the reasons why these locations were received so well. Furthermore, reserving the area for future aeronautical use also resonated well with all stakeholders. As such, Hangar Sites 1 and 2 were incorporated into the recommended preferred alternative.
- The public viewing area concept was highly supported by all entities. The location shown on the northwest portion of the airfield, as seen in **Figure 5.10** and **Figure 5.11**, received the most positive comments and, therefore, was included in the preferred alternative.
- The preferred locations of the aircraft wash racks and self-service fuel island within the recommended alternative were also determined based upon the majority of the City, PAC, and public's input for the location of these support facilities.

Figure 5.12 illustrates the resulting Preferred Alternative with modifications. This recommended alternative was selected by the City.

Public Viewing Area

Balboa Ave.

Route 163

Non-Precision
Runway Markings

Potential San Diego Fire
Department Expansion
±33,000 SF

SDFD

ATCT

Proposed Compass Rose
and Run-up Area

27 Hangars
(81,000 SF)

3 Large Hangars
(30,000 SF)

±25 Vehicle
Parking Spaces

Coast
Air

Crownair
Aviation

Corporate
Helicopters

Future Runway
28R Threshold

Proposed
Run-up Area

4 Large Hangars
(75,000 SF)

58 Hangars
(97,000 SF)
48 Tie-downs
(±9,000 SY)

Glenn H. Curtiss Rd.

John J. Montgomery Dr.

Aero Dr.

Afton Rd.

Terminal Expansion
±6,000 SF

Sandrock Rd.

31 Tie-downs
±12,500 SY

Source: C&S Engineers, Inc., Atkins

SD Airports

Montgomery-Gibbs Executive
Airport Master Plan

Figure 5.12
Preferred Alternative

Legend

- Property Line
- Existing Buildings
- Proposed Buildings
- Existing Airfield Pavement
- Proposed Pavement
- Proposed Demolition
- Private Leasehold Area
- Private Leasehold Proposed Development
- Proposed Taxiway/Taxilane Centerline
- Proposed Runway Markings
- Proposed Aircraft Tie-Downs
- Proposed Wash Rack
- Proposed Fuel Island
- Proposed Segmented Circle
- Proposed Wind Cone

250' 0' 250' 500'

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Recommended Supplemental Projects

Some improvement projects recommended for the Airport relate to routine maintenance and upkeep, safety and security enhancements, or other proposed studies that were not associated with a development alternative. Regardless of the preferred development alternative selected, incorporating these items into the planning horizon is suggested. **Section 6 – *Airport Layout Plan and Implementation*** will contain a financial analysis and a phased capital improvement plan (CIP) of all proposed development and recommended supplemental projects. The supplemental airfield and landside projects suggested for MYF include the following:

Airside Considerations

Associated airside-related projects suggested for inclusion on the Airport's CIP are:

- Runway 10L/28R surface pavement grooving
- Runway Guard Lighting Systems at Hotspots 2, 3, and proposed crossing taxiway locations
- Run-up area reconfiguration at Runway 28R and Taxiway Alpha intersection
- Request for the FAA to consider establishment of a non-precision instrument approach procedure to Runway 10L, and to conduct a controlling obstruction review for Runway 28R

Landside Considerations

Associated landside-related projects suggested for inclusion on the Airport's CIP:

- Perimeter fencing enhancements (where applicable)

Airport-Related Reports and Studies

- General Utility Study
- Wildlife Hazard Assessment
- Runway Protection Zone Risk Analysis – Runway 28R threshold relocation

SD Airports



Airport Master Plan

Montgomery-Gibbs Executive Airport

Section 6

Airport Layout Plan and Implementation

Prepared by:

C&S COMPANIES®

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Appendix N – Airport Layout Plan (ALP)

6.1 Airport Layout Plan Drawing Set and Development Phasing Plan

The following sections present the ALP Drawing Set and the Project Phasing Plan created for Montgomery-Gibbs Executive Airport. The ALP Drawing Set illustrates the recommended development at the Airport while the Project Phasing Plan provides guidance on how to implement the findings and recommendations contained in previous chapters of the Airport Master Plan for the 20-year planning period (2017-2037). The plan addresses the Airport's planned capital improvement projects while balancing funding constraints, project sequencing limitations, environmental requirements, and the necessary approvals and coordination processes.

6.2 Airport Layout Plan Drawing Set

The ALP Drawing Set was prepared in accordance with FAA ARP SOP 2.00, *Standard Procedure for FAA Review and Approval of Airport Layout Plans (ALPs)* and FAA ARP SOP 3.00, *Standard Operating Procedure (SOP) for FAA Review of Exhibit 'A' Airport Property Inventory Maps*. The drawing set is provided in **Appendix N** and consists of the following sheets:

1. Title Sheet
2. Data Sheet
3. Existing Airport Layout Plan
4. Future Airport Layout Plan
5. Airport Airspace Drawing
6. Airport Airspace Drawing Continued
7. Runway 28R Inner Approach: Plan & Profile
8. Runway 10L Inner Approach: Plan & Profile and Data
9. Runway 10R-28L Inner Approach: Plan & Profile
10. Runway 5-23 Inner Approach: Plan & Profile
11. Land Use Drawing
12. Exhibit A – Airport Property Inventory Map

6.3 Project Phasing Plan

The Project Phasing Plan provides a recommended phasing schedule for implementing the proposed projects and development program for the 20-year planning period. The ALP identified several areas for potential future aviation development as well as airport compatible commercial development. The Phasing Plan is divided into three phases as follows:

- Phase 1 (2017-2021) – Near-Term
- Phase 2 (2022-2027) – Mid-Term
- Phase 3 (2028-2037) – Long-Term

Overall, the Phasing Plan presents projects in the preferred order for implementation. Phasing is subject to change if federal, state or local funding is unavailable or if the forecasted demand varies. The Coast Air, Crown Air, Corporate Helicopter, and San Diego Fire Department plans are shown on the ALP in order to ensure compatibility with design standards and other proposed development. However, because these developments are privately funded and independent of other Airport projects, they are not included in the cost estimates.

Phase 1 Development

Phase 1, or the near-term development (2017-2021), at MYF focuses on runway and taxiway rehabilitation and bringing the Airport into compliance with FAA design standards. These projects are considered to be of the highest priorities in the development plan, and are supported by findings reached during previous portions of this study. Proposed Phase 1 projects are depicted on **Figure 6.1** and include the following:

1-1 Runway 10L/28R Grooving and Marking

Runway 10L/28R will be grooved and re-marked.

1-2 Runway 10R/28L, Taxiways B, C, and F and Taxilane A Rehab, Taxiway E Demolition, and Compass Calibration Pad Construction

The Runway 10R/28L pavement, Taxiways B, C, and F pavements, and Taxilane A pavement will be rehabilitated as identified in the PMMP (see Appendix H). Taxiway E will be demolished for runway incursion mitigation purposes. A compass calibration pad will be constructed that will also serve as a run-up apron for Runway 23.

1-3 Taxiways H, A, J, B Rehab and Runway 28L Run Up Improvements

Rehabilitate Taxiways H, A, J, and B as identified in the PMMP (see **Appendix H**). Construct run up area adjacent to the Runway 28L end. The portion of Taxiway B south of Taxiway H and leading to the apron area will be reconstructed east of its existing location in order to prevent direct access from the apron to the runway.

1-4 Taxiway K, Terminal Apron Rehab, and "No-Taxi" Island

Rehabilitate Taxiway J and terminal apron as identified in the PMMP (see **Appendix H**). Paint "No-Taxi" island to prevent direct access from terminal apron to Runway 10R/28L on Taxiway D. The Taxiway K separation will be increased to meet ADG II separation requirements.

1-5 Coast Air leasehold development to include new box hangars

Private leasehold development to include box hangars, a new FBO, vehicle parking reconfiguration, and aboveground fuel tanks.

1-6 Crown Air leasehold development to include new box hangars and rotating beacon relocation

Private leasehold development to include box hangars, a new FBO, vehicle parking reconfiguration, and relocation of the airport beacon.

1-7 Corporate Helicopters leasehold development to include new box hangars

Private leasehold development to include box hangars and additional vehicle parking.

1-8 San Diego Fire Department development to include large box hangar and apron

Expansion of the existing SDFD site on the north side of the airfield. New hangar construction and apron expansion to accommodate the change in helicopters currently in use by the SDFD.

1-9 Construct VSR between Taxilane P and Taxilane J. Close portion of VSR near Runway 28R end.

A vehicle service road will be constructed north of the Corporate Helicopters development to connect Taxilane P and Taxilane J. The portion of the VSR that traverses the Runway 28R end RSA will be closed.

1-10 Relocate segmented circle and wind cones out of safety areas

The existing location of the segmented circle and wind cone is within the Runway 10L/28R ROFA and is not compliant with FAA design standards. These NAVAIDS will be relocated out of the ROFA. Additional wind cones will be installed in order to provide better wind information to pilots. The exact locations are depicted in **Figure 6.1**.

1-11 Avigation Easements for Runway 28R Existing Approach RPZ

The City will obtain avigation easements for the portions of the Runway 28R RPZ (3.5 acres) that currently extends off airport property.

Additional near-term projects that are not identified on the ALP include the following.

ALP Update

Prepare and update the Airport Layout Plan to reflect as-built conditions.

PRIVATE LEASEHOLD DEVELOPMENT	
ID	FACILITY DESCRIPTION
1-5	Coast Air leasehold development to include new box hangars
1-6	Crown Air leasehold development to include new box hangars and rotating beacon relocation
1-7	Corporate Helicopters leasehold development to include new box hangars
1-8	San Diego Fire Department development to include large box hangar and apron

PROPOSED PROJECTS	
ID	FACILITY DESCRIPTION
NEAR-TERM: 0 - 5 YEARS	
1-1	Runway 10L/28R Grooving and Marking
1-2	Runway 10R/28L, Twy B/C/F and Txl A Rehab, Twy E Demo, and Compass Calibration Pad
1-3	Taxiways H/A/J/B Rehab and Runway 28L Run Up Improvements
1-4	Taxiway K, Terminal Apron Rehab, and "No-Taxi" Island
1-9	Construct VSR between Txl P and Txl J. Close portion of VSR Near Runway 28R End.
1-10	Relocate Segmented Circle and Wind Cones out of Safety Areas
1-11	Avigation Easements for Runway 28R Existing Approach RPZ
MID-TERM: 6 - 10 YEARS	
2-1	Preventative Maintenance on Section of Runway 10L/28R
2-2	Hangar Area Pavement
2-3	Construct Hangars South of Taxiway G
2-4	Construct Additional Tie-downs North of Gibbs Leasehold
2-5	Airfield Lighting and Electrical Upgrades (Additional study required to site new electrical vault)
2-6	Perimeter Fencing Improvements
2-7	Non-Aeronautical Development off of Aero Dr.
LONG-TERM: 11-20 YEARS	
3-1	Runway 10L Non-Precision Markings and Avigation Easements for Future Approach RPZ
3-2	Public Viewing Area
3-3	Terminal Expansion Project
3-4	Runway 5 End Relocation and New Connector Taxiways
3-5	Construct Self Service Fuel Farm
3-6	Construct Aircraft Wash Rack
3-7	Runway 28R Threshold Relocation (Taxiway A Fillet), Reduce Runway Width to 100 FT, and Avigation Easements for Future Approach RPZ
3-8	Runway 28R Threshold Relocation (NAVAID and MALSR Relocation)
3-9	Construct Hangars in Spiders Area

Balboa Ave.
Route 163
Wind Cone and Segmented Circle
Wind Cone
Compass Rose and Run-up Area
Wind Cone
Wind Cone
Wind Cone
Run-up Area
Glenn H. Curtiss Rd.
John J. Montgomery Dr.
Aero Dr.
Afton Rd.
Sandrock Rd.

Source: C&S Engineers, Inc., Atkins

SD Airports

Montgomery-Gibbs Executive Airport Master Plan

Figure 6.1
Phase 1 Development

Legend

- Property Line
- Existing Buildings
- Existing Airfield Pavement
- Proposed Demolition

Phase 1 (6 - 10 Years)

- Proposed Building
- Proposed Pavement

Private Leasehold Development

- Proposed Building
- Proposed Pavement

350' 0' 350' 700'

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Phase 2 Development

Phase 2 of the development plan encompasses the period from 2022 to 2027. It focuses on taxiway and fencing improvements as well as hangar and tie-down developments to accommodate future demand. Proposed Phase 2 projects are depicted on **Figure 6.1** and include the following:

2-1 Preventative Maintenance on Section of Runway 10L/28R

Rehabilitate sections of Runway 10L/28R as identified in the PMMP (see **Appendix H**).

2-2 Hangar Area Pavement

Rehabilitate the hangar area pavement as identified in the PMMP (see **Appendix H**).

2-3 Construct Hangars South of Taxiway G

Construction of up to 34 T-Hangars, 24 small to mid-size box hangars, 48 tie-downs, and a dedicated aircraft wash rack. The development area will be designed to ADG I standards to accommodate the GA fleet at the Airport.

2-4 Construct Additional Tie-downs North of Gibbs Leasehold

Construction of 23 tie-downs.

2-5 Airfield Lighting and Electrical Upgrades (Additional study required to site new electrical vault)

Install LED edge lighting on Runway 10R/28L and upgrade taxiway edge lights to LED. Make necessary improvements to airfield electrical vault as determined in subsequent study. It is likely that the existing electrical vault is insufficient to handle the LED lighting without improvements.

2-6 Perimeter Fencing Improvements

Ongoing preventative maintenance to various portion of the fence will lower the risk of unwanted access to the airfield by both wildlife and pedestrians.

2-7 Non-Aeronautical Development off of Aero Drive

Area reserved for future non-aeronautical development similar to existing uses to the east. This area will be required to go through a land release process with the FAA prior to being used for non-aeronautical use.

Additional mid-term projects that are not identified on the ALP with a specific project number include the following.

Utility Study (Including Drainage)

This study will determine the condition and layout of existing utilities and drainage in order to identify necessary repairs and to facilitate future development projects.

Security Compliance Analysis/Research

The Airport is currently in compliance with FAA regulation on general aviation security. As regulations change and security measures evolve, it is crucial to remain in compliance with the latest guidance.

Sustainability Plan

This stand-alone document uses baseline assessments of environmental resources and community outreach to identify sustainability objectives that will reduce environmental impacts, realize economic benefits, and improve community relations.

Master Plan Update
A master plan update will be completed to review the trajectory of the growth and development of the Airport and to better align future development to the Airports needs.

Phase 3 Development

The long range-development, Phase 3, extends from 2028 to 2037 and focuses on hangar construction, terminal improvements, and runway improvements. The Phase 3 recommendations are as follows:

3-1 Runway 10L Non-Precision Markings and Avigation Easements for Future Approach RPZ

Addition of a non-precision approach on the Runway 10L end will accommodate traffic during east flow. The runway will require non-precision markings in order to comply with standards. The lower approach minimums will increase the size of the approach RPZ on the Runway 10L and will require the City to obtain avigation easements over these areas.

3-2 Public Viewing Area

A public viewing area will be constructed at the northwest corner of the airfield along Kearny Villa Road.

3-3 Terminal Expansion Project

The existing terminal building will be refurbished and expanded by approximately 6,300 SF to accommodate City staff and improvements such as a pilots lounge.

3-4 Runway 5 End Relocation and New Connector Taxiways

390 feet of pavement will be removed from the Runway 5 end. This will eliminate the existing displaced threshold and shift the Runway 5 end, but will not affect the location of the current Runway 5 threshold. This reduction in pavement will make a significant portion of land on the west side of the airfield available for development while still providing sufficient runway length for the Runway 5/23 fleet mix.

3-5 Construct Self-Service Fuel Farm

A self-service fuel farm will be constructed in the triangle pavement area north of the Gibbs leasehold.

3-6 Construct Aircraft Wash Rack

A public aircraft wash rack will be constructed.

3-7 Runway 28R Threshold Relocation (Taxiway A Fillet), Reduce Runway Width to 100 FT, and Avigation Easements for Future Approach RPZ

The Runway 28R displaced threshold will be removed and the landing threshold will be moved to the edge of pavement. This will shift the landing threshold 1,199 feet farther to the east. The shift in the landing threshold will also shift the Runway 28R approach RPZ and the City will acquire avigation easements over the affected parcels. The intersection of Taxiway A and the Runway 28R end is currently a non-standard lead in taxiway. This intersection will be corrected to 90-degree intersection. The current width of Runway 10L/28R is 150 feet and exceeds the 100-foot requirement for the B-II classification. The width of the runway will be reduced by 50 feet to comply with FAA standards.

3-8 Runway 28R Threshold Relocation (NAVAID and MALSR Relocation)

The Runway 28R threshold relocation will require the PAPI, glideslope, and MALSR systems be relocated to match the future landing threshold.

3-9 Construct Hangars in Spiders Area

Construction of medium to large size box hangars on the western portion of the airfield. The ultimate size of this development will be reevaluated based on current demand. The existing hangars in this area will not be impacted by this future development.

PRIVATE LEASEHOLD DEVELOPMENT	
ID	FACILITY DESCRIPTION
1-5	Coast Air leasehold development to include new box hangars
1-6	Crown Air leasehold development to include new box hangars and rotating beacon relocation
1-7	Corporate Helicopters leasehold development to include new box hangars
1-8	San Diego Fire Department development to include large box hangar and apron

PROPOSED PROJECTS	
ID	FACILITY DESCRIPTION
NEAR-TERM: 0 - 5 YEARS	
1-1	Runway 10L/28R Grooving and Marking
1-2	Runway 10R/28L, Twy B/C/F and Txl A Rehab, Twy E Demo, and Compass Calibration Pad
1-3	Taxiways H/A/J/B Rehab and Runway 28L Run Up Improvements
1-4	Taxiway K, Terminal Apron Rehab, and "No-Taxi" Island
1-9	Construct VSR between Txl P and Txl J. Close portion of VSR Near Runway 28R End.
1-10	Relocate Segmented Circle and Wind Cones out of Safety Areas
1-11	Avigation Easements for Runway 28R Existing Approach RPZ
MID-TERM: 6 - 10 YEARS	
2-1	Preventative Maintenance on Section of Runway 10L/28R
2-2	Hangar Area Pavement
2-3	Construct Hangars South of Taxiway G
2-4	Construct Additional Tie-downs North of Gibbs Leasehold
2-5	Airfield Lighting and Electrical Upgrades (Additional study required to site new electrical vault)
2-6	Perimeter Fencing Improvements
2-7	Non-Aeronautical Development off of Aero Dr.
LONG-TERM: 11-20 YEARS	
3-1	Runway 10L Non-Precision Markings and Avigation Easements for Future Approach RPZ
3-2	Public Viewing Area
3-3	Terminal Expansion Project
3-4	Runway 5 End Relocation and New Connector Taxiways
3-5	Construct Self Service Fuel Farm
3-6	Construct Aircraft Wash Rack
3-7	Runway 28R Threshold Relocation (Taxiway A Fillet), Reduce Runway Width to 100 FT, and Avigation Easements for Future Approach RPZ
3-8	Runway 28R Threshold Relocation (NAVAID and MALSR Relocation)
3-9	Construct Hangars in Spiders Area

Balboa Ave.
Route 163
Glenn H. Curtiss Rd.
John J. Montgomery Dr.
Aero Dr.
Sandrock Rd.
Afton Rd.
Non-Aeronautical Development
58 Hangars (97,000 SF) 48 Tie-downs (±9,000 SY)
±25 Vehicle Parking Spaces
31 Tie-downs ±12,500 SY

Source: C&S Engineers, Inc., Atkins

SD Airports

Montgomery-Gibbs Executive Airport Master Plan

Figure 6.2
Phase 2 Development

Legend

- Property Line
- Existing Buildings
- Existing Airfield Pavement
- Proposed Demolition

Previous Phase Construction

- Proposed Building
- Proposed Pavement

Phase 2 (6 - 10 Years)

- Proposed Building
- Proposed Pavement

Private Leasehold Development

- Proposed Building
- Proposed Pavement

350' 0' 350' 700'

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PRIVATE LEASEHOLD DEVELOPMENT	
ID	FACILITY DESCRIPTION
1-5	Coast Air leasehold development to include new box hangars
1-6	Crown Air leasehold development to include new box hangars and rotating beacon relocation
1-7	Corporate Helicopters leasehold development to include new box hangars
1-8	San Diego Fire Department development to include large box hangar and apron

PROPOSED PROJECTS	
ID	FACILITY DESCRIPTION
NEAR-TERM: 0 - 5 YEARS	
1-1	Runway 10L/28R Grooving and Marking
1-2	Runway 10R/28L, Twy B/C/F and Txl A Rehab, Twy E Demo, and Compass Calibration Pad
1-3	Taxiways H/A/J/B Rehab and Runway 28L Run Up Improvements
1-4	Taxiway K, Terminal Apron Rehab, and "No-Taxi" Island
1-9	Construct VSR between Txl P and Txl J. Close portion of VSR Near Runway 28R End.
1-10	Relocate Segmented Circle and Wind Cones out of Safety Areas
1-11	Avigation Easements for Runway 28R Existing Approach RPZ
MID-TERM: 6 - 10 YEARS	
2-1	Preventative Maintenance on Section of Runway 10L/28R
2-2	Hangar Area Pavement
2-3	Construct Hangars South of Taxiway G
2-4	Construct Additional Tie-downs North of Gibbs Leasehold
2-5	Airfield Lighting and Electrical Upgrades (Additional study required to site new electrical vault)
2-6	Perimeter Fencing Improvements
2-7	Non-Aeronautical Development off of Aero Dr.
LONG-TERM: 11-20 YEARS	
3-1	Runway 10L Non-Precision Markings and Avigation Easements for Future Approach RPZ
3-2	Public Viewing Area
3-3	Terminal Expansion Project
3-4	Runway 5 End Relocation and New Connector Taxiways
3-5	Construct Self Service Fuel Farm
3-6	Construct Aircraft Wash Rack
3-7	Runway 28R Threshold Relocation (Taxiway A Fillet), Reduce Runway Width to 100 FT, and Avigation Easements for Future Approach RPZ
3-8	Runway 28R Threshold Relocation (NAVAID and MALSR Relocation)
3-9	Construct Hangars in Spiders Area

Balboa Ave.

Route 163

Non-Precision Runway Markings

27 Hangars (81,000 SF)

3 Large Hangars (30,000 SF)

4 Large Hangars (75,000 SF)

Terminal Expansion ±6,000 SF

Fuel Island

Relocated Runway 28R Threshold

Glenn H. Curtiss Rd.

John J. Montgomery Dr.

Aero Dr.

Sandrock Rd.

Afton Rd.

Source: C&S Engineers, Inc., Atkins

SD Airports

Montgomery-Gibbs Executive Airport Master Plan

Figure 6.3
Phase 3 Development

Legend

- Property Line
- Existing Buildings
- Existing Airfield Pavement
- Proposed Demolition

Previous Phase Construction

- Proposed Building
- Proposed Pavement

Phase 3 (11 - 20 Years)

- Proposed Building
- Proposed Pavement

Private Leasehold Development

- Proposed Building
- Proposed Pavement

350' 0' 350' 700'

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6.4 Project Costs

Approximate project costs are based on unit costs developed by the consultant from experience at other airports of similar size in California. For comparative purposes, the estimated costs are stated in 2019 dollars. Therefore, these costs should be considered as foundation planning costs that will likely have to be adjusted regularly to arrive at actual project costs. In most cases, the actual project costs and corresponding budgeted amounts will be greater, to account for varying economic conditions.

Table 6.1 summarizes the total development costs in each phase over the 20-year planning period. For projects eligible for Federal funding, the Federal and Local shares were calculated at 90 and 10 percent, respectively. Not all projects are eligible for Federal funding so the total Local cost by phase may end up being higher than 10%. The more detailed estimates found in **Table 6.2** show which projects are not anticipated to receive Federal funding. The City may apply for Caltrans (State) funding on eligible projects (relocation or construction of new hangars would not qualify) as long as the Caltrans funding requirements are met; however, it is not guaranteed that funds will be allocated. If the founds are allocated they are assumed to be 5% of the total cost. If AIP eligible projects do not include State funding, the sponsor is then responsible for 10 percent of local funding. Local funding may also include private development funds.

Table 6.1 – Total Development Cost by Phase

Development Phase	Federal Share (90%)	Local Share (10%)	Potential State Share (5%)	Total
Phase 1 (2017 - 2021) Near-Term	$20,456,000	$2,272,000	$1,022,000	$22,727,000
Phase 2 (2022 - 2027) Mid-Term	$21,957,000	$14,569,000	$1,098,000	$36,527,000
Phase 3 (2028 – 2037) Long-Term	$36,406,000	$29,076,000	$1,820,000	$65,482,000
Grand Total All Phases	$78,819,000	$45,917,000	$3,940,000	$124,736,000

Source: C&S Engineers, Inc., Atkins

Table 6.2 – Project Cost Estimates

Development Phase	Federal Share (90%)	Local Share (10%)	Potential State Share (5%)	Total
Phase 1 Development (2017 – 2021) Near-Term				
Runway 10L/28R Grooving and Marking	$937,332	$104,148	$46,867	$1,041,000
Runway 10R/28L, Taxiways B/C/D/F Rehab, Taxiways E Demo, Compass Calibration Pad	$4,089,000	$454,000	$204,000	$4,543,000
Taxiways H/A/J/B Rehab and Runways 28L and 28R Run Up Improvements	$4,486,000	$498,000	$224,000	$4,984,000
ALP Update	$216,000	$24,000	$10,800	$240,000
Taxiway K and Terminal Apron Rehab	$2,773,000	$308,000	$139,000	$3,081,000
Construct VSR between Txl P and Txl J. Close portion of VSR Near Runway 28R End.	$162,000	$18,000	$8,100	$180,000
Relocate Segmented Circle and Wind Cones out of Safety Areas	$154,800	$17,200	$7,740	$172,000
Avigation Easements for Runway 28R Existing Approach RPZ	$7,637,802	$848,645	$381,890	$8,486,447
Phase 1 Development (2017 – 2021) Near-Term Total	**$20,456,000**	**$2,272,000**	**$1,022,000**	**$22,727,000**
Phase 2 Development (2022 – 2027) Mid-Term				
Preventative Maintenance on Section of Runway 10L/28R	$792,000	$88,000	$40,000	$880,000
Hangar Area Pavement	$2,601,000	$289,000	$130,000	$2,890,000
Construct Hangars South of Taxiway G	$12,368,000	$13,475,000	$618,000	$25,843,000
Construct Additional Tie-downs North of Gibbs Leasehold	$1,816,000	$231,000	$91,000	$2,047,000
Airfield Lighting and Electrical Upgrades	$2,659,000	$295,000	$133,000	$2,955,000
Perimeter Fencing Improvements	$416,700	$46,300	$20,835	$463,000
Utilities study	$270,000	$30,000	$13,500	$300,000
Security Compliance Analysis/Research	$21,600	$2,400	$1,080	$24,000
Sustainability Plan	$148,500	$16,500	$7,425	$165,000
Master Plan Update	$864,000	$96,000	$43,200	$960,000
Phase 2 Development (2022 – 2027) Mid-Term Total	**$21,957,000**	**$14,569,000**	**$1,098,000**	**$36,527,000**
Phase 3 Development (2028 – 2037) Long-Term				
Runway 10L Non-Precision Markings and Avigation Easements for Future Approach RPZ	$2,351,000	$261,000	$118,000	$2,613,000
Public Viewing Area	$142,200	$15,800	$7,110	$158,000
Terminal Expansion Project	$1,999,800	$222,200	$99,990	$2,222,000
Runway 5L End Relocation and New Connector Taxiways	$2,069,100	$229,900	$103,455	$2,299,000
Construct Self Service Fuel Farm	$1,009,800	$112,200	$50,490	$1,122,000
Construct Aircraft Washrack	$81,000	$9,000	$4,050	$90,000
Runway 28R Threshold Relocation (Environmental/Noise)	$855,360	$95,040	$42,768	$950,400
Runway 28R Threshold Relocation (Taxiway A Fillet), Reduce Runway Width to 100 FT, and Avigation Easements for Future Approach RPZ	$13,410,000	$1,490,000	$670,000	$14,900,000
Runway 28R Threshold Relocation (NAVAID and MALSR Relocation)	$3,594,600	$399,400	$179,730	$3,994,000
Construct Hangars in Spiders Area	$10,893,000	$26,241,000	$544,650	$37,134,000
Phase 3 Development (2028 – 2037) Long-Term Total	**$36,406,000**	**$29,076,000**	**$1,820,000**	**$65,482,000**
Grand Total All Phases	**$78,819,000**	**$45,917,000**	**$3,940,000**	**$124,736,000**

Source: C&S Engineers, Inc., Atkins

6.5 Financial Analysis

Introduction

This section in the Financial Feasibility Analysis and Capital Financing Plan summarizes the findings from the financial analysis for Montgomery Gibbs Executive Airport (MYF or Airport). The analysis focuses on the existing capacity of the airport finances to support the costs incurred through the Master Plan alternatives. The Master Plan alternatives analysis included provisions for projects such as runway and taxiway realignments and improvements; facility improvements; new hangars, easements, preventative maintenance; renovation of the main terminal building; and other improvements.

Financial Analysis Findings

Projected Airport Improvement Costs and Local Costs

The 20-Year Master Plan improvements for MYF total $124.74 million, of which San Diego Airports would be expected to fund $45.92 million. The Federal share of the projects is estimated to be $78.82 million. It is important to note that simply because a project is eligible for Federal funding does not guarantee that it will receive this funding. Some state funds may be available to reduce the Federal and/or local share. Additionally, hangar development costs are included under the local share, but if developed by a third party then the burden of the cost will be on the third party and not the City.

The planned improvements occur in phases over three time periods covering a total of 20 years. The local share of costs for each phase is shown below.

- 0-5 Years $2,272,000
- 6-10 Years $14,569,000
- 11-20 Years $29,076,000

Operating Revenue and Expenses, and Capital Funding

The Airports Enterprise Fund operating revenues total $5.6 million in FY 2019 and derive primarily from leases and rents from the use of airport property, accounting for 93.6 percent of the operating revenue (**Table 6.3**). The remaining portion of operating revenue comes from charges for service, mainly short term aircraft parking and rental of conference spaces at the airports.

Operating expenses in FY 2019 totaled $8.2 million, of which $2.86 million is depreciation of airport assets. The remaining $5.3 million in operating cost is less than the $5.6 million operating revenue and consists mainly of personnel expenses and direct contracting services. Approximately $410,000 is for materials and direct expenses, including capital expenditures. Capital expenditures are variable from year to year depending on the scheduling of improvement projects as funds are available. In FY 2019, capital expenditures of $4.9 million were scheduled as part of a continuing appropriation. However, in FY 2020 only $35,000 in routine capital improvements are budgeted.

Airport Assets, Liabilities, and Net Operating Income (Revenues and Expenses)

Table 6.3 shows the financial position of the Airports Division as of the fiscal year (FY) ending June 2019. The Division had current assets of $16.3 million and non-current assets, mostly capital facilities, of $30.5 million, against total liabilities of only $4.2 million.

Accounting for existing obligations and other restricted assets, the Division had an unrestricted net position of $12.75 million. The City has not established a mandatory reserve policy for enterprise funds such as the Airport Fund; however, the required reserves for the City General Fund are about 16.7 percent of the three-year rolling average of annual revenues.

Applying this factor to the last three years of Airport Division operating revenues would result in a figure of $883,350, suggesting that as much as $11.8 million could be available to fund the City's share of capital improvements to implement the master plans for both airports. This would cover the first phase improvements for both Montgomery Field and Brown Field and leave as much as $6.4 million for Phase 2 improvements at Montgomery Field.

Table 6.3 - San Diego Airports Division Financial Condition, FY 2019

Financial Indicator	($000's)
ASSETS	
Current Assets	
Cash and Investments	$14,960
Receivables	$1,372
Total Current Assets	$16,332
Non-Current Assets	
Restricted Cash/Investments	$78
Capital Assets - Non-depreciable	$2,464
Capital Assets - Depreciable	$28,016
Total Non-Current Assets	$30,558
Total Assets	$46,890
LIABILITIES	
Current Liabilities	$397
Non-Current Liabilities	$3,831
Total Liabilities	$4,228
NET POSITION	
Net Investment in Capital Assets	$30,480
Unrestricted	$12,750
Total Net Position	$43,230
OPERATING REVENUES	
Charges for Service	$335
Revenue from Use of Property	$5,260
Other	$24
Total Operating Revenues	$5,619
OPERATING EXPENSES	
Salaries/Contractual Services	$4,931
Materials/Utilities/Other	$410
Depreciation	$2,864
Total Operating Expenses	$8,205
OPERATING INCOME (LOSS)	($2,586)
Non-operating Revenues	431
Contributions and Transfers	685
CHANGE IN NET POSITION	($1,470)

Source: City of San Diego Comprehensive Annual Financial Report, FY 2019, pp. 250-255.

One concern with the pay-as-you-go approach is that airport operations have been running an

operational deficit over the past several years. As shown in **Table 6.4**, the negative profit has increased since FY 2016. In the current FY 2020 budget, the operating deficit is projected to be ($1.1) million, meaning that operating expenses will have exceeded operating revenues by $7.3 million over the past five years.[1] Unless this situation can be addressed, the current cash reserves will be needed to meet operating deficits rather than used for new capital improvements and there will be no ability for the Airports to build up additional reserves to complete the master plan improvements program in later phases. While the cash in the Airport Fund has remained above $14.3 million during the past several years despite the operating deficits, the annual cash flow of airport operations appears to be unstable.

Table 6.4 – San Diego Airports Division Financial Conditions, FY 2014-FY 2019 ($000's)

Fiscal Year	Total Assets	Current Assets	Total Liabilities	Current Liabilities	Net Assets	Profit	Current Ratio	Operating Margin	Cash
2014	$33,699	$16,078	$1,160	$300	$32,539	$49	53.59	1.1%	$15,279
2015	$35,569	$17,686	$3,195	$674	$32,007	$845	26.24	18.3%	$16,809
2016	$47,512	$18,806	$6,514	$3,825	$40,940	($156)	4.92	-3.3%	$14,314
2017	$45,326	$16,817	$4,326	$726	$41,924	($997)	23.16	-18.7%	$15,849
2018	$52,865	$20,469	$8,868	$4,965	$44,700	($2,459)	4.12	-50.0%	$14,620
2019	$46,890	$16,332	$4,228	$397	$43,230	($2,588)	41.14	-46.1%	$15,038

Source: San Diego Real Estate Assets Department, Airports Division, Business Plan, FY 2020 and San Diego City CAFR, FY 2019.

According to the Airports Division Business Plan, staff is undertaking an effort to renegotiate or renew the airport leases to reflect current market conditions. Presumably, this will result in increased lease revenues which may alleviate the operating deficits.

The City could also consider bond financing for the airport master plan improvements. In order to finance the $43.6 million in Phase 2 and 3 MYF Improvements with bonds, the Airport would need to dedicate an annual revenue stream of about $3.4 million for 30 years. This would be equal to 64 percent of the average operating revenues for both airports over the past three years. As noted above, maintaining the airport facilities lease rates at market levels may create the necessary net revenue to support such a financing approach.

Rent and Lease Revenues

Appraisal reports were recently done for Airports Division to evaluate the comparable lease rates and purchase prices for comparable properties in the surrounding areas. These appraisals reflect the conditions for office and commercial spaces comparable to those located at Montgomery-Gibbs Executive Airport. The appraisal reports did not include reviews of aviation-specific properties. The number of comparables within San Diego County is limited for aviation uses.

A review of the appraisal reports indicates that for those office and commercial spaces, the lease rates charged by the airport are comparable to other similar properties. The January 2020 appraisal report from Rasmuson Appraisal Services indicated that office buildings at the airport are all Class B and Class C properties, and the comparables noted in the appraisal report would have to reflect buildings in a similar condition and configuration.

The lease rates noted in the appraisal reports indicate that Montgomery-Gibbs office tenant leases

[1] City of San Diego Fiscal Year 2020 Adopted Budget, Airports Department. p. 14.

generally average between $1.55 to $2.10 per SF. MYF is located in the Kearny Mesa area of San Diego. The office tenant lease rates are in line with other comparable properties, and slightly lower than the overall average asking lease rates for the Kearny Mesa market across all building classes, including Class A buildings, during that same time period (full service gross $2.26 per SF).[2] The average lease rates noted in the appraisal reports for most of the retail tenants at the airport site range between $1.75 to $1.85 per SF.

By comparison, the comparables rent rates range from $1.70 to $3.00 per SF, with most of the spaces ranging from $1.70 to $2.00 per SF. For the Central San Diego market as a whole (includes a large area covering Poway, Rancho Bernardo, La Jolla, Mira Mesa, Mission Valley, Clairemont, as well as Kearny Mesa), the average asking rent was $2.60 per SF.[3] While this is higher than the properties at MYF, and slightly higher than the countywide average of $2.56, the Central San Diego market area covers some very affluent areas, and the vacancy rate during the 1st quarter of 2020 was only 3.1 percent.

As a share of property revenues in 2016, the aviation leases at MYF made up about 30 percent of the total, while commercial leases comprised about 47 percent of the total. Leases to City Fire Department, lease penalties, interest, and other uses made up the remainder of the revenues at MYF. As a share of overall Airports Division lease revenues, the aviation leases at MYF made up about 73 percent of the division's aviation lease revenues. For commercial leases, MYF comprised 86 percent of the total division revenues for commercial tenants.

Lease revenues provided by the operators, businesses and other parties that utilize airport facilities and land represent approximately 94 percent of total operating income for the San Diego Airports. Given the system's strong reliance on property revenues to maintain financial stability, it is important to review and monitor lease rates and terms on a regular basis to ensure that leasing agreements at MYF and SDM reflect current market conditions and provide terms favorable to the airports.

A robust Rents & Fees study would extend beyond comparisons of on-airport and off-airport commercial lease rates, to cover the full range of aviation-related leases and fees as well as non-aeronautical leasing activity at MYF and SDM. This type of study usually involves benchmarking to provide an understanding of how the airport system's rates and practices compare to peer airports from a relevant aviation market area. Additionally, an inventory of available property assets accompanied by a focused real estate market analysis would provide a tool to help identify opportunities for the airport system to introduce new on-airport development and associated revenue generation.

As a recommendation, the Airports Division may wish to consider such studies in the near term as part of its strategic approach to revenue enhancement.

Revenue Generating Opportunities

In addition to potentially augmenting revenue streams associated with airport leases and fees, opportunities exist to realize additional financial savings and revenue generation while taking steps to protect the environment, and reduce natural resource consumption.

[2] Colliers International; Research & Forecast Report: San Diego County/Office; Q4 2019.

[3] CBRE; Marketview San Diego Retail; Q1 2020.

Such opportunities, and associated implementation actions, may include (but are not limited to) the following:

1. Decreased energy and water consumption by replacement of building/facility fixtures and equipment with more efficient alternatives, to reduce utility costs at the Airport. Targeted replacements may include the airfield and/or building lighting with LEDs; plumbing fixtures; Heating, Ventilation and Air Conditioning (HVAC) equipment with higher efficiency alternatives; and/or installation of heating, cooling and lighting controls to reduce use.
    - ✓ Incorporate LEED compliance including energy and water performance requirements into airport development projects.
    - ✓ Incorporate energy and water consumption requirements into tenant lease agreements and any tenant improvement requirements.

2. Material reuse during airport development projects and seeking opportunities for byproduct synergies with other projects in the area, to reduce procurement costs.
    - ✓ Incorporate material reuse and stockpiling requirements into airport development project RFQ/RFPs.

3. Implementation of alternative-fuel or electric vehicles and infrastructure to reduce emissions. Fees may be charged for the use of electric vehicle charging stations by Airport users. Available funding programs can support the conversion to electric Airport vehicles and equipment to alternative-fuels or electricity.
    - ✓ Pursue FAA funding programs targeted at reducing emissions, such as the Zero Emissions Vehicle and Infrastructure (ZEV) program, and the "Increasing the Energy Efficiency of Airport Power Sources" program, also known as "Section 512" funding.
    - ✓ Identify additional local/regional funding opportunities.

4. Expansion of the Airport's waste and recycling program to reduce waste generation and increase the diversion rate from landfills, which can reduce procurement costs and waste hauling expenses.
    - ✓ Expand the Airport's waste and recycling program.
    - ✓ Develop an airport procurement policy.
    - ✓ Incorporate construction waste diversion requirements into airport development project RFQ/RFPs.

5. Consideration of renewable energy technologies such as solar. Solar installations can reduce Airport energy costs, and third-party solar projects can provide land lease revenue generation opportunities. Requiring airport development projects to consider future solar projects and the installation of supporting technology/infrastructure can avoid future rework and reduce future expenses.
    - ✓ A solar siting study can identify potential locations for solar projects.

The action items described above could yield significant savings to the airport system over time, while improving the sustainability of Airport functions and projects in line with regional efforts and industry trends.

Airport System Business Model

MYF and SDM generate revenues primarily through aviation and commercial leasing, as well as from fuel flowage, landing, and monthly parking fees. Studies conducted prior to the Airport Master Plan process[4] have found that the airports had not maximized lease and fee revenues, and identify

[4] Performance Audit of the Real Estate Assets Department, Aviation Division; 2015

measures that can be implemented to enhance business operations and improve financial performance.

A number previous recommendations have focused on improved planning to establish a vision, prioritize airport projects and investments, and provide a strategic framework to guide Airport Division operations through the implementation of planning objectives. The current MYF and SDM Airport Master Plans provide a much-needed update to address operational inefficiencies and establish a clear direction for continued success of the airports.

While the Master Plans provide a broad framework that will shape airport priorities and operations over a 20-year planning horizon, the system would benefit from additional planning studies to address persistent issues at a more granular level. In particular, the revenues generated through various rents and fees are central to the airport system's viability under the established business model, and it remains critical to ensure that all airport rents and fees are consistent with prevailing market rates.

Building upon outcomes of the master planning process, it is recommended that the Airport System conduct a detailed Rents & Fees study as noted above, and this information should be updated on a regular basis (such as five-year intervals) in order to maximize airport revenues and promote long-term financial viability.



SD Airports

Airport Master Plan

Montgomery-Gibbs Executive Airport

Section 7

Economic Impact Analysis

Prepared by:

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Appendix M – Economic Impact Analysis Tables

7.1 Economic Impact Analysis

Introduction

The Economic Impact Analysis looks at how impacts resulting from a business operation or a site location (such as an airport) do not limit themselves to the activity that occurs on-site. For this analysis, the impacts focus on the Airport's facility operations and tenant business operations. In order for an airport to operate, the airport and all of its business tenants need to initiate supplier relationships with other businesses.

These suppliers support airport activities by addressing a wide range of needs such as capital equipment, utilities, commodities, business support, and other services. In addition, the employed workers will create economic activity through household spending. A comprehensive documentation of how an economic engine, such as an airport, impacts a geographic area accounts for these supplier relationships and household spending by estimating their economic multipliers.

Using an input-output model and other data sources, this section identifies not only the direct effects from these activities, but the indirect and induced multiplier effects as well. These multipliers result from the aforementioned ancillary economic activity generated by airport operations.

Economic Multiplier Effect Definitions

The analysis calculated the multiplier impacts based on three economic measures – employment, industry output, and labor income. These measures are defined as follows:

- **Employment indicates** the number of jobs supported by airport operations and tenants on an ongoing basis. Employment includes both direct on-site airport jobs, and off-site jobs generated through multiplier effects.
- **Industry output** represents the sum of all economic activity generated by airport and ancillary activities. This activity includes all commodity inputs, labor income, property income, and other value added components.
- **Labor income** represents the income generated through both self-employment, and wage-and-salary employee compensation.

The multiplier impacts for these measures come from the Type Social Accounting Matrix (Type SAM) multipliers. These multipliers include the direct, indirect, and induced impacts. These multiplier descriptions are as summarized below.

- **Direct impacts** represent the jobs and other economic impacts that are directly generated on airport property on an annual basis. These impacts include jobs that are created at the airport site.
- **Indirect impacts** represent the jobs and other economic effects that will potentially be generated elsewhere in San Diego County as a result of the activities on Airport property. These indirect impacts result from supplier purchases.
- **Induced impacts** represent the economic effects that will be generated through household purchases made throughout the County as a result of employee spending. These induced impacts most typically occur in retail and other local-serving industry categories such as personal services, education, and health care.

Regional Context

The air transportation sector in the County was directly responsible for 1,926 jobs in 2015. This includes a combination of scheduled air transportation, nonscheduled air transportation, and both freight and passenger transport. In addition, transportation support services and sightseeing transportation added another 5,714 jobs. These services include airport administration; support services for ground, rail, water, and air transportation; and scenic and sightseeing transportation for ground, rail, water, and air.[1]

It should be noted that this total does not account for other jobs that are supported and facilitated by transportation. This would include both suppliers and business-to-business vendors, and hospitality and other industries that rely on air transportation to bring customers and products into the San Diego regional market.

Countywide, air transportation and transportation support services generate total direct economic activity valued at nearly $1.7 billion in industry output. In addition, air transportation and transportation support services directly account for over $493.7 million in labor income (both employee compensation and proprietor income). **Table 7.1** provides a summary of economic activity for the industry.

[1] The data from the IMPLAN model uses a sectoring system that differs from the more commonly used North American Industry Classification System (NAICS). Because of this, the transportation support services sectors (NAICS code 488) were combined with scenic and sightseeing transportation (NAICS code 487). This aggregation also results in different modes of transportation services being combined.

Table 7.1 – Summary of Economic Activity for Air Transportation and Transportation Support Services

Transportation Indicators	Air Transportation	Transportation Support and Sightseeing Services	Total
Employment	1,926.4	5,714.1	7,640.4
Output	$742,598,848	$916,970,240	$1,659,569,088
Labor Income	$130,796,898	$362,948,616	$493,745,514

Source: ADE, Inc.; data from IMPLAN Pro input-output model.

Notes: Economic effects only include direct airport operations and administration. The data does not include tenant activities. Air transportation includes sectors defined as part of NAICS code 481. Transportation support and sightseeing services include all sectors defined as part of NAICS codes 487 and 488.

Economic Multiplier Findings

The economic impacts summarized in this section include both the Airport operations and impacts from tenant businesses on the Airport property. Due to the overlap of administrative functions for MYF and Brown Field Municipal Airport (SDM), the impacts from administrative functions were proportionally allocated based on the number of employees based at each airport.

The operational findings utilize information provided by the City of San Diego Airports Division (City), while the calculated impacts from airport tenant activities utilize a combination of the City's information, site visits, phone calls, and business database information from InfoUSA/Salesgenie. The data from the City covers the year 2016.

In order to calculate the multiplier effects for the operations, the categorical expenditures, revenues, and labor income were entered into an input-output model. The model uses a dataset that estimates the multiplier impacts across the County, and the model was customized to account for operational characteristics unique to both airports.

For the tenant businesses, the impacts are based on the job counts for each establishment. The number of jobs were entered into the model, which calculated the multipliers and the other economic effects.

Multiplier Effects: Airport Operations

As shown in **Table 7.2**, the operations and administrative functions for MYF directly supports 46 jobs (16 jobs from the City and 30 jobs with the Federal Aviation Administration [FAA]). These jobs have a multiplier effect that creates 1.41 additional off-site jobs in the County for every job supported at the Airport. The supplier relationships needed to keep and operate the Airport are represented through the indirect effects, while the induced effects are created by employee and institutional spending. Together, these secondary (indirect and induced) effects create an additional 65 jobs for 111 jobs. This is a significant amount of ancillary activity and does not account for the other economic activities that depend on air transportation as an infrastructure asset.

Table 7.2 – Economic Multiplier Effects

Montgomery-Gibbs Executive Airport Operations, 2016

Impact Category	Direct Effects	Indirect Effects	Induced Effects	Total Effects	Multiplier Value
Employment	46	33	32	111	2.41
Labor Income	$2,707,520	$2,036,997	$1,788,914	$6,533,431	2.41
Industry Output	$8,229,491	$4,629,487	$4,650,202	$17,509,180	2.13

Source: ADE, Inc.; data from IMPLAN Pro input-output model and City of San Diego Airports Division.

Notes: Economic effects only include airport operations and administration, including Airports Division and Federal Aviation Administration personnel. The impact totals do not include tenant activities.

The economic value of airport activities is expressed as industry output, and the direct output for MYF totals $8.2 million. The multiplier effect for industry output creates an economic impact of $17.5 million. This means that every dollar of economic activity generated at the Airport will generate an additional $1.13 across the rest of the County's economy. In addition, the labor income directly generated by airport activity totals about $2.7 million. In turn, this supports another $3.8 million in income multiplier effects. For every dollar in labor income generated at the Airport, an additional $1.41 is supported elsewhere in the County. The more detailed secondary (indirect and induced) multiplier effects by sector are shown in **Appendix M**, Table M.1.

Multiplier Effects: Airport Tenants

Tenant businesses located on the Airport property account for about 694 jobs. This total includes those jobs that have been verified to date, by direct contact with either the business or database listing with InfoUSA (see **Table 7.3**).[2] The Airport property includes the buildings inside and adjacent to the secured areas, as well as retail, office, and hotel buildings located along Aero Drive. The tenant businesses are largely concentrated in aviation support, business administrative services, accommodation, and food service.

[2] For businesses listed with InfoUSA and not verified by other available information, the listings were confirmed by calling the businesses directly.

Table 7.3 – MYF Tenants and Direct Economic Effects by NAICS Code

NAICS Code	Description	Direct Employment	Direct Output	Direct Income
	Total	694	$75,715,822	$35,778,908
336	Transportation Eq.Manufacturing	7	$5,715,616	$834,499
441	Motor Vehicle and Parts Dealers	23	$3,068,053	$1,477,094
445	Food and Beverage Stores	2	$151,177	$70,002
453	Miscellaneous Store Retailers	9	$381,878	$205,079
487-488	Transportation Support Services and Sightseeing	99	$16,180,846	$6,367,308
517	Telecommunications	3	$1,343,536	$273,847
522	Credit Intermediation	21	$3,664,195	$1,743,992
531	Real Estate	4	$992,181	$163,315
532	Rental and Leasing Services	2	$567,744	$209,999
541	Professional, Scientific, and Technical Services	45	$8,080,362	$3,584,834
561	Administrative and Support Services	221	$15,828,973	$11,616,738
611	Educational Services	54	$2,799,300	$1,777,175
621	Ambulatory Health Care Services	10	$1,268,495	$880,263
721	Accommodation	100	$11,157,845	$4,005,041
722	Food Services and Drinking Places	73	$3,715,408	$1,977,592
812	Personal and Laundry Services	21	$800,212	$592,130

Source: ADE, Inc.; data from IMPLAN Pro input-output model, Cornerstone Property Management, InfoUSA/Salesgenie, and City of San Diego Airports Division.

Notes: Economic effects only include tenant activities.

As shown in **Table 7.4**, the tenant businesses create a collective multiplier effect that increases the total job impact to 1,279 jobs. With the existing tenant mix, every tenant job at the Airport creates an additional 0.84 jobs elsewhere in the County. The industry output from tenant businesses directly accounts for $75.7 million in economic activity, with a total value of $161.8 million after accounting for the multiplier effects. The estimated labor income from tenant businesses totals $35.8 million, with a total of $69.2 million after accounting for the multiplier effects. The more detailed secondary (indirect and induced) multiplier effects by sector are shown in **Appendix M**, Table M.2.

Table 7.4 – Economic Multiplier Effects

MYF Tenants, 2016

Impact Category	Direct Effects	Indirect Effects	Induced Effects	Total Effects	Multiplier Value
Employment	694	169	416	1,279	1.84
Labor Income	$35,778,908	$9,798,677	$23,600,273	$69,177,859	1.93
Industry Output	$75,715,822	$25,465,052	$60,639,898	$161,820,772	2.14

Source: ADE, Inc.; data from IMPLAN Pro input-output model, InfoUSA/Salesgenie, and City of San Diego Airports Division.

Notes: Economic effects only include tenant activities.

Multiplier Effects: Aggregate Total

Altogether, the combined direct job impact of the Airport totals 740 jobs. As shown in **Table 7.5**, the Airport operations and tenant activities create a collective multiplier effect that increases the total job impact to 1,390 jobs. As currently situated, every job on the Airport property creates an additional

0.88 jobs elsewhere in the County. As shown in Table 6.6, the industry output from tenant businesses directly accounts for $75.7 million in economic activity, with a total value of $161.8 million after accounting for the multiplier effects. The estimated labor income from tenant businesses totals $35.8 million, with a total of $69.2 million after accounting for the multiplier effects.

Table 7.5 – Economic Multiplier Effects

MYF Combined Operations (Administration and Tenants), 2016

Impact Category	Direct Effects	Indirect Effects	Induced Effects	Total Effects	Multiplier Value
Employment	740	202	448	1,390	1.88
Labor Income	$38,486,428	$11,835,675	$25,389,187	$75,711,290	1.97
Industry Output	$83,945,313	$30,094,539	$65,290,100	$179,329,952	2.14

Source: ADE, Inc.; data from IMPLAN Pro input-output model, Cornerstone Property Management, InfoUSA/Salesgenie, and City of San Diego Airports Division.

When combining the indirect and induced multiplier effects from MYF and tenant operations, these secondary impacts generate approximately 650 jobs throughout the County. All of these jobs and other economic effects occur in a combination of business-to-business supplier industries and local-serving sectors.

As shown in **Table 7.6**, the combined secondary economic effects support a wide range of industries, with the largest secondary employment effects occurring in professional services, food service, public sector, administrative services, health care, retail trade, and wholesale trade. Included in **Appendix M**, are more detailed tables showing economic effects at the three-digit NAICS code equivalent level of detail.

Table 7.6 – Summary of Secondary (Indirect and Induced) Economic Effects by Industry Sector
MYF Combined Operations (Administration and Tenants), 2016

NAICS Code	Description	Secondary Jobs	Secondary Output	Secondary Income
	Total	650	$95,384,639	$37,224,862
11	Crop and Animal Production	1	$86,366	$38,802
21	Mining, Quarrying, and Oil and Gas Extraction	1	$150,276	$37,479
22	Utilities	1	$474,680	$94,675
23	Construction	16	$2,800,108	$978,554
31	Manufacturing	5	$1,985,253	$402,004
42	Wholesale Trade	15	$3,866,892	$1,298,155
44	Retail Trade	61	$5,451,576	$2,250,393
48	Transportation and Warehousing	37	$4,933,183	$1,784,358
51	Information	12	$6,365,881	$1,278,354
52	Finance and Insurance	41	$8,774,642	$2,661,748
53	Real Estate and Rental and Leasing	33	$14,652,614	$1,481,964
54	Professional, Scientific, and Technical Services	56	$8,007,300	$4,144,344
55	Management of Companies and Enterprises	10	$2,373,498	$1,225,353
56	Administrative and Support and Waste Management and Remediation Services	65	$4,686,119	$2,538,713
61	Educational Services	15	$1,050,824	$620,141
62	Health Care and Social Assistance	66	$6,307,124	$3,841,779
71	Arts, Entertainment, and Recreation	19	$1,424,217	$572,022
72	Accommodation and Food Services	59	$3,708,792	$1,567,343
81	Other Services (except Public Administration)	50	$4,251,571	$2,092,385
92	Government and Other	89	$14,033,723	$8,316,297

Source: ADE, Inc.; data from IMPLAN Pro input-output model, InfoUSA/Salesgenie, and City of San Diego Airports Division.

Multiplier Effects: Capital Improvements (Construction Phase)

With the implementation of the planned capital improvements, construction and other activities will generate additional multiplier effects over the next 20 years. While these effects are more temporary in nature than those from airport operations and tenant businesses, they still represent ongoing benefits to the overall economy because they occur over the entirety of the 20-year plan implementation phase.

The costs for the Montgomery-Gibbs Executive Airport capital improvements are broken down into three separate phases: years 1 through 5, years 6 through 10, and years 11 through 20. Each implementation phase has a separate range of renovation, construction, and design activity, and accompanying costs. Dollar values are adjusted to remain constant between timeframes.

As shown in **Table 7.7**, the cumulative effect from capital improvement implementation over 20 years will result in over 520 direct jobs, with 1,021 total jobs after accounting for the multiplier effect. Every job supported on-site by the capital improvements will result in an additional 0.96 jobs elsewhere in San Diego County. The capital improvements plan will also cumulatively generate $33.7 million in labor income, with $62.8 million after adding the multiplier effects. Overall, the implementation of the capital improvements will result in $83.4 million in industry output, with $158.7 million in output after including the multiplier effects.

Table 7.7 – Economic Multiplier Effects

MYF Capital Improvement Implementation (Cumulative 20-Year Effect)

Impact Category	Direct Effects	Indirect Effects	Induced Effects	Total Effects	Multiplier Value
Employment	522	131	368	1,021	1.96
Labor Income	$33,709,526	$8,081,953	$21,026,222	$62,817,702	1.86
Industry Output	$83,407,499	$20,984,314	$54,296,219	$158,688,032	1.90

Source: ADE, Inc.; data from IMPLAN Pro input-output model, and City of San Diego Airports Division.

On an annual basis, the economic effects from the capital improvements will vary depending on the construction and other expenditures for each implementation phase. It should be noted that the intensity of activity within each phase will also likely vary by year, so the annualized economic effects shown for each implementation phase represents an average.

As shown in **Table 7.8**, the annualized effect from the first implementation phase (Year 1 through Year 5) will result in an average of 13.9 direct jobs, with 27.1 total jobs after including the indirect and induced jobs. Labor income during the first phase will average approximately $895,000 annually, with $1.7 million total after accounting for the multiplier effects. Industry output will directly average about $2.2 million each year during the first implementation phase, with $4.2 million total after including the multiplier effects.

Table 7.8 – Economic Multiplier Effects

MYF Capital Improvement Implementation (Annualized Average, Years 1 through 5)

Impact Category	Direct Effects	Indirect Effects	Induced Effects	Total Effects	Multiplier Value
Employment	13.9	3.5	9.8	27.1	1.96
Labor Income	$894,736	$215,704	$558,603	$1,669,044	1.87
Industry Output	$2,216,800	$559,832	$1,442,500	$4,219,132	1.90

Source: ADE, Inc.; data from IMPLAN Pro input-output model, and City of San Diego Airports Division.

For the second implementation phase (Year 6 through Year 10), the annualized impacts will increase as the activity level ramps up. As shown in **Table 7.9**, the annualized job effect will average 37.2 positions from direct activity, with a total of 72.8 jobs after adding the multiplier effects. Labor income effects will directly average $2.4 million annually during this phase, and contribute a total of $4.5 million to the county economy after accounting for the multiplier effects. The industry output will directly average about $6.0 million annually, with $11.3 million in total output annually.

Table 7.9 – Economic Multiplier Effects

MYF Capital Improvement Implementation (Annualized Average, Years 6 through 10)

Impact Category	Direct Effects	Indirect Effects	Induced Effects	Total Effects	Multiplier Value
Employment	37.2	9.4	26.2	72.8	1.96
Labor Income	$2,402,655	$579,254	$1,500,033	$4,481,942	1.87
Industry Output	$5,952,700	$1,503,353	$3,873,590	$11,329,642	1.90

Source: ADE, Inc.; data from IMPLAN Pro input-output model, and City of San Diego Airports Division.

During the latter half of the planned capital improvement implementation (Year 11 through Year 20), the annualized impacts will begin to phase down. As shown in **Table 7.10**, the annualized direct jobs will average about 26.7 positions, while the total annual jobs will average 52.1 positions during the final 10 years of the implementation phase. The direct labor income will average about $1.7 million annually, while the total labor income will average about $3.2 million. Overall, the direct industry output will average $4.3 million annually, with a total of $8.1 million annually after accounting for the multiplier effects.

Table 7.10 – Economic Multiplier Effects

MYF Capital Improvement Implementation (Annualized Average, Years 11 through 20)

Impact Category	Direct Effects	Indirect Effects	Induced Effects	Total Effects	Multiplier Value
Employment	26.7	6.7	18.8	52.1	1.95
Labor Income	$1,722,257	$410,716	$1,073,304	$3,206,277	1.86
Industry Output	$4,256,000	$1,066,839	$2,771,577	$8,094,416	1.90

Source: ADE, Inc.; data from IMPLAN Pro input-output model, and City of San Diego Airports Division.

Regional Value of Airport Activities

As documented in this section, the economic impacts of the Montgomery-Gibbs Executive Airport operations include a combination of multiple activities supported on-site, including aviation uses, administrative activities, and business operations for airport tenants. The multiplier analysis also indicates significant off-site economic activity that the airport operations and tenant businesses support throughout San Diego County. These impacts additionally include the temporary effects that occur during the construction phase activities included in the planned capital improvement implementation.

For airports in general, their economic effects also extend beyond the direct documentation of economic activities and the indirect and induced impacts that they generate. Because they represent infrastructure assets that serve the entire San Diego region, the airports in San Diego help to support the economy as a whole. With air transportation as part of a larger regional transportation network, the regional economy is able to compete at a higher level because businesses that locate in the San Diego region benefit from being from having air transportation resources available to support their scale of operation.

7.2 Methodology

Economic Impact Analysis

The economic impact analysis in this report focused on identifying the broad range of potential effects from the Airport operations and tenant activities by tracing how those activities and the resultant expenditures and worker income would interact with the County's economy and stimulate additional activity. This is broadly known as a "multiplier effect" and one of the most common methods of calculating this effect entails using an input-output model.

Input-output models are well-established analytical tools used by private companies and government agencies to help identify how economic effects in one part of the economy create additional impacts through the economy. Input-output models can interpret effects for a wide range of different economic sectors, and differentiate between how economic measures and trade patterns vary between different regions.

IMPLAN Pro Input-Output Model

The computational application used to interpret the data and generate the impact calculations is the IMPLAN Pro input-output model. This application is developed and maintained by the IMPLAN Group, LLC, and has been refined and updated since it originated as a US Forest Service project in the mid-1970s. Since that time, the IMPLAN model has become one of the leading input-output modeling applications available, with citations found in numerous economic impact analyses and other similar studies.

The IMPLAN Pro model calculates impacts and buyer-supplier relationships for 536 individual industry and commodity categories. The industry classification system used in the IMPLAN model roughly approximates, but still differs significantly from the commonly used Standard Industry Classification (SIC) and NAICS.

The economic impacts estimated by the model fall into one of three categories -- direct, indirect, and induced. These impacts are calculated based on annual impacts. In this analysis, direct impacts represent the estimated jobs, labor income, and industry output that result directly from the Airport and tenant activities. Indirect impacts represent the estimated effects that result from demand for commodity and service inputs. Examples of supplier industries include business services, capital equipment, and other services. Induced impacts represent the potential effects resulting from household spending at local businesses by employed workers. These impacts generally affect retail businesses, health services, public services, and personal services providers.

Model Customization

One of the more powerful functions of the IMPLAN Pro model is the ability to customize the model data. This customization allows the analysis to better approximate the actual operational characteristics for a business operation or industry sector being analyzed. For this analysis, the model was customized for analyzing the Airport operations managed by the City. Other parts of the analysis utilized the default model datasets.

The input-output matrices that form the main database come from the 2015 Bureau of Labor Statistics dataset, and the analysis used an individual county-specific dataset for the County. These matrices contain the assumptions regarding economic output per employee, the amount of commodity input that is purchased locally, and the production functions, which define the inputs and supplier services for each industry category.

The input-output model data file for the County contains default assumptions regarding the economic relationships between different industries. In particular, the default data contains worker productivity measures and industry purchase pattern data for each individual sector. In addition, the model has default data about the proportion for each individual commodity/service category that is purchased locally rather than imported from outside of the County.

Airport Operational Impacts

In order to calculate the Airport's operational impacts, the analysis was divided into two separate parts – the Airport operations directly managed by the City, and the operations that fall under the FAA. The analysis used the IMPLAN Pro input-output model to make the calculations.

For the operations managed by the City, ADE acquired detailed expenditure and payroll information from the City itself. This information was used to compile an expenditure profile of the Airport operations, which tracks the extent to which the Airport operations create supplier relationships with other businesses.

Because many of the operational data for the City covers all administrative activities for both SDM and MYF, the analysis made the calculations for all operations. The allocation of economic impacts by individual airport proportionally divided the operational impacts based on the number of workers based at each airport – 16 workers at MYF and six workers at SDM.

ADE used this information as the basis for customizing the IMPLAN Pro model, and ensuring that the results will be more specific to the City's operations. Once the profile was done, the expenditure categories from the City were matched up with industry categories from the IMPLAN Pro model, which uses a sectoring scheme consisting of 536 different categories. For those expenditures categories that had a broader description, ADE assigned the expenditures to multiple IMPLAN categories. These expenditures were proportionally assigned based on the default purchase pattern data from the IMPLAN model for the transportation support services and sightseeing transportation sector.

The expenditure pattern used in the analysis is shown in **Table 7.11** below. The coefficients represent the overall percentage of operational revenues corresponding to an expense category. The IMPLAN model also geographically assigns the percentage of these expenditures that occur within the County using data on regional purchase percentages. It should be noted that the expenditures are categorized using the IMPLAN coding system.

Because no detailed staffing or payroll information was available for personnel employed by the FAA, the analysis was based on an assumption of 19 FAA workers based at the Airport. The employment served as the primary data input into the IMPLAN model for those workers. The impacts and labor income are based on the benchmark averages for the IMPLAN sector that aggregates transportation support services (NAICS code 488) and sightseeing transportation (NAICS code 487).

The overall operational impacts for the Airport combined the results from the City's operations and the estimated impacts from the assumed FAA employment. It should be noted that the analysis does not include city police and fire services, and excludes other federal personnel not employed by the FAA.

Table 7.11 – Expenditure Pattern for Airport Operations Used for IMPLAN Model

IMPLAN Code	Industry Description	Coefficient
49	Electric power transmission and distribution	0.027155
50	Natural gas distribution	0.000066
51	Water, sewage and other systems	0.009979
58	Construction of other new nonresidential structures	0.008548
64	Maintenance and repair construction of highways, streets, bridges, and tunnels	0.008740
106	Bottled and canned soft drinks & water	0.000055
114	Narrow fabric mills and schiffli machine embroidery	0.000010
129	Other cut and sew apparel manufacturing	0.001507
154	Printing	0.002267
157	Asphalt paving mixture and block manufacturing	0.000200
159	Petroleum lubricating oil and grease manufacturing	0.000002
164	Other basic inorganic chemical manufacturing	0.000966
205	Cement manufacturing	0.000000
236	Handtool manufacturing	0.000626
255	Plumbing fixture fitting and trim manufacturing	0.000392
277	Air conditioning, refrigeration, and warm air heating equipment manufacturing	0.000457
287	Pump and pumping equipment manufacturing	0.000083
301	Electronic computer manufacturing	0.000141
307	Audio and video equipment manufacturing	0.000000
326	Lighting fixture manufacturing	0.004681
336	Storage battery manufacturing	0.000056
387	Office supplies (except paper) manufacturing	0.001551
388	Sign manufacturing	0.001748
391	Fasteners, buttons, needles, and pins manufacturing	0.000009
395	Wholesale trade	0.013671
402	Retail - Gasoline stores	0.002418
412	Transit and ground passenger transportation	0.000547
415	Couriers and messengers	0.001301
418	Periodical publishers	0.000067
419	Book publishers	0.000042
422	Software publishers	0.000932
426	Cable and other subscription programming	0.000100
427	Wired telecommunications carriers	0.007493
428	Wireless telecommunications carriers (except satellite)	0.001573
430	Data processing, hosting, and related services	0.000823
437	Insurance carriers	0.009210
442	Automotive equipment rental and leasing	0.000000
445	Commercial and industrial machinery and equipment rental and leasing	0.018318
447	Legal services	-0.000007
448	Accounting, tax preparation, bookkeeping, and payroll services	0.000581

IMPLAN Code	Industry Description	Coefficient
449	**Architectural, engineering, and related services**	0.090308
451	**Custom computer programming services**	0.006928
453	**Other computer related services, including facilities management**	0.039346
457	**Advertising, public relations, and related services**	0.000101
463	**Facilities support services**	0.000005
465	**Business support services**	0.006474
466	**Travel arrangement and reservation services**	0.003624
467	**Investigation and security services**	0.025557
468	**Services to buildings**	0.006112
469	**Landscape and horticultural services**	0.011546
471	**Waste management and remediation services**	0.010913
474	**Other educational services**	0.001226
502	**Limited-service restaurants**	0.000252
507	**Commercial and industrial machinery and equipment repair and maintenance**	0.013429
512	**Other personal services**	0.000477
515	**Business and professional associations**	0.001440
518	**Postal service**	0.000082
526	**Other local government enterprises**	0.041565
533	**Local government**	0.067740

Source: ADE, Inc.; data from IMPLAN Pro input-output model, and City of San Diego Airports Division.

Airport Tenant Impacts

In addition to the impacts from Airport operations, the analysis also looked at the existing tenants for MYF. The tenant impacts only include those business operations located within the Airport property. The calculations do not include any of the other businesses located directly adjacent to the Airport boundary.

As a first step, the project team compiled a list of the businesses located at the Airport. This list was assembled from a combination of sources. For MYF, the City provided a list of tenants. Subsequent field visits to the Airport property found additional businesses that were not included in the original tenant list. Retail tenant information was provided by Cornerstone Property Management.

For third party verification of the business tenants, their contact information, and the number of employees, ADE purchased business database listings for the physical addresses located at the Airport from Salesgenie/InfoUSA. This database utilizes information from credit reports and other sources.

Verification of the tenant listings was done by either directly contacting businesses from the tenant list, the Salesgenie/InfoUSA listings, and/or looking up any available websites. The analysis excluded disconnected phone numbers, and businesses that have their primary base of operations located off-site. The analysis also did not include businesses whose presence at the Airport could not be verified by phone contact or site visit.

In order to calculate the tenant impacts, the analysis relied on entering the job counts for each type of tenant business. The job counts came from either direct contact with the businesses, or using the

information from the Salesgenie/InfoUSA database. The categorical assignments by industry sector came from the six-digit NAICS code found in the Salesgenie/InfoUSA database and any other information gained through direct contact with the businesses. For data entry into the IMPLAN model, the industry sectors for each tenant business were assigned to the IMPLAN sector that provided the match for the NAICS codes.

The IMPLAN model calculations utilized the benchmark productivity defaults for each business category. The dataruns combined the impacts for all of the tenant businesses.

Appendix A

Lease Parcel Inventory

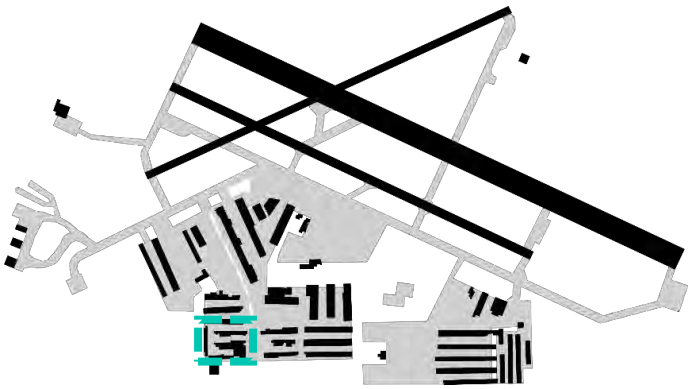
Lease Parcel Inventory

Coast Aircraft









Quick Facts

Total Lease Area	~3 ac.
Number of Hangars	38
SF of Hangars	44,200 SF
Number of Tie-downs	4

Description

Located in the southwest corner of the apron area. It consists of a number of modular T-hangars and one large maintenance hangar with attached office space. There are several aircraft tie-downs mixed in with the T-hangars. Advanced Aircraft Services is a maintenance shop operated on this leasehold that is a Factory Authorized Cessna Service Center and works on GA aircraft as well as some turboprop aircraft. This area is owned and operated by the City.

Challenges

- Non-standard taxilane safety areas
- Hangars in fair condition
- Pavement in poor condition

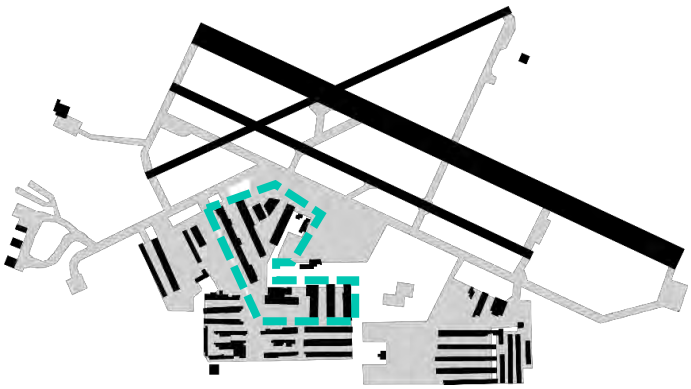
Lease Parcel Inventory

Crownair









Quick Facts

Total Lease Area	~16.5 ac.
Number of Hangars	42
SF of Hangars	217,800 SF
Transient Aircraft Ramp	64,000 SF

Description

All of the hangars within this leasehold are mid- to large-size conventional hangars. The hangars and pavement are in good condition. The main business on this leasehold is Crownair Aviation, a full-service FBO catering to corporate aircraft. Crownair services include aircraft refueling, aircraft maintenance from single-engine piston to light jets, and transient aircraft tie-downs. Additional business within this lease include Coast Flight Training, Conquest Charter Inc., and Corporate Helicopters, the only helicopter repair service available at the Airport.

Challenges

- Non-standard taxilane safety areas
- Limited parking
- Lack of office space

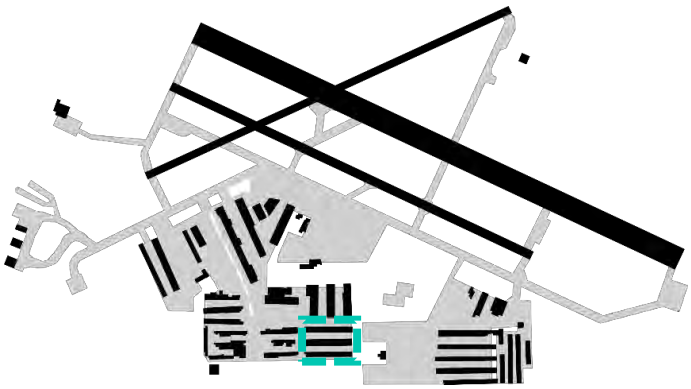
Lease Parcel Inventory

Flattop East









Quick Facts

Total Lease Area	~2.5 ac.
Number of Hangars	48
SF of Hangars	56,800 SF
Number of Tie-downs	1

Description

The Flattop East leasehold encompasses the first block of hangars at the corner of John J. Montgomery Drive and Gibbs Drive. This area is primarily filled with modular T-hangars, but has several single aircraft conventional hangars as well. This area is owned by the City and ground leased to individual tenants. Lessees are currently on month-to-month leases, but work is underway to transition to 15-year term leases.

Challenges

- Non-standard taxilane safety areas
- Hangars in good to fair condition
- Pavement in poor condition

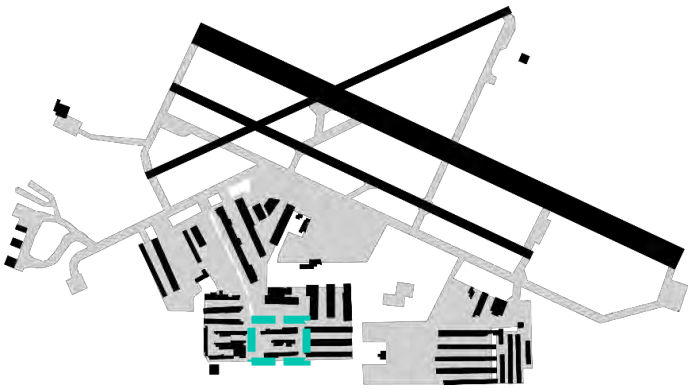
Lease Parcel Inventory

Flattop West









Quick Facts

Total Lease Area	~2 ac.
Number of Hangars	25
SF of Hangars	33,300 SF
Number of Tie-downs	8

Description

The Flattop West leasehold is made up of the group of hangars north of the midway point of Gibbs Drive. The buildings are a mix of T-hangars and single aircraft conventional hangars with aircraft tie-downs dispersed in between. This area is owned by the City and ground leased to individual tenants. Lessees are currently on month-to-month leases, but work is underway to transition to 15-year term leases.

Challenges

- Non-standard taxilane safety areas
- Hangars in good to fair condition
- Pavement in poor condition

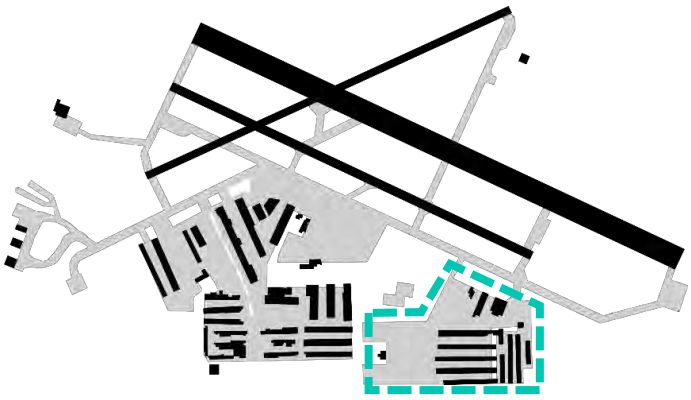
Lease Parcel Inventory

Gibbs Flying Service









Quick Facts

Total Lease Area	~23 ac.
Number of Hangars	101
SF of Hangars	182,200 SF
Number of Tie-downs	171

Description

The Gibbs Flying Service leasehold is the oldest at the Airport and consists of an FBO, a large aircraft tie-down area, conventional hangars, T-hangars, and a row of covered tie-downs. Services offered include aircraft fueling, aircraft cleaning and catering, and aircraft maintenance. They are certified to work on both single and multi-engine piston aircraft as well as the Allison and PT-6 turboprop engines.

Challenges

- Hangars ranging from good to fair condition
- Erosion behind the maintenance shop and several T-hangars
- Pavement in poor condition and failing in several areas
- Non-standard taxilane safety areas

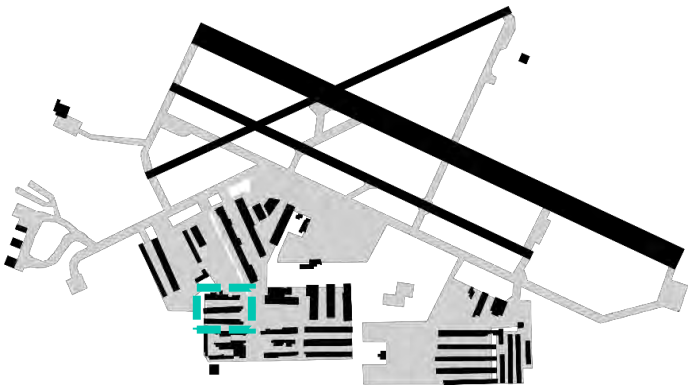
Lease Parcel Inventory

Marigold Spots









Quick Facts

Total Lease Area	~2 ac.
Number of Hangars	26
SF of Hangars	40,900 SF
Number of Tie-downs	1

Description

This leasehold is located at the end of Glenn H. Curtiss Road. It is a mix of T-hangars and single aircraft conventional hangars. This area is owned by the City and ground leased to individual tenants. Lessees are currently on month-to-month leases, but work is underway to transition to 15-year term leases.

Challenges

- Non-standard taxilane safety areas
- Hangars in good to fair condition
- Pavement in poor condition

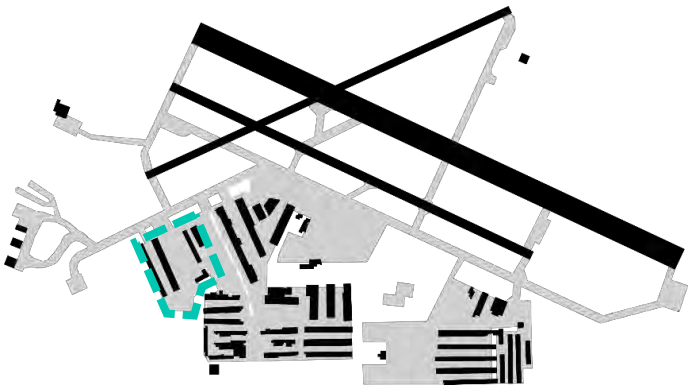
Lease Parcel Inventory

National Air College









Quick Facts

Total Lease Area	~9.5 ac.
Number of Hangars	46
SF of Hangars	76,500 SF
Number of Tie-downs	45

Description

This leasehold on the southwestern portion of the airfield is currently operated as an FBO catering to based and transient aircraft hangar storage and tie-downs. Services also include flight training, ground instruction, and aircraft rental.

Challenges

- T-hangars are in fair to poor condition
- Pavement in poor condition
- Main hangar in fair condition
- Non-standard taxilane safety areas
- Drainage issues

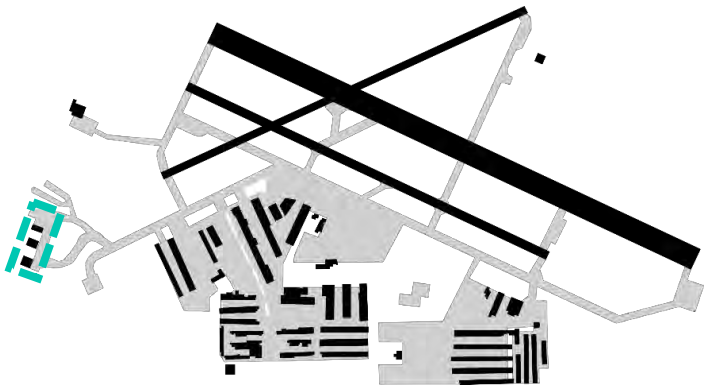
Lease Parcel Inventory

Spiders – Sorbi









Quick Facts

Total Lease Area	TBD
Number of Hangars	1
SF of Hangars	19,400 SF
Number of Tie-downs	TBD

Description

This leasehold is on the far western edge of airport property. In the past it was surrounded by T-hangars that have since been removed in order to comply with the Runway 5 RPZ, leaving the Spiders maintenance shop and two abandoned conventional hangars as the only development in the area. They specialize in small, fabric, seaplane, and light-sport aircraft repairs.

Challenges

- Pavement in poor condition
- Abandoned hangar with potential historical significance
- Separation from the center of the airfield
- Runway 5 RPZ limits the potential for future expansion

Appendix B

FAA Terminal Area Forecast (TAF)

APO TERMINAL AREA FORECAST DETAIL REPORT

Forecast Issued January 2017

Montgomery-Gibbs Executive Airport

	Enplanements			AIRCRAFT OPERATIONS								
				Itinerant Operations				Local Operations				
Fiscal Year	**Air Carrier**	**Commuter**	**Total**	**Air Carrier**	**Air Taxi & Commuter**	**GA**	**Military**	**Total**	**Civil**	**Military**	**Total**	**Total Ops**	**Based Aircraft**
1990	0	0	0	0	4,507	104,043	159	108,709	94,742	48	94,790	203,499	545
1991	0	0	0	0	7,463	133,562	145	141,170	118,057	24	118,081	259,251	545
1992	0	0	0	0	9,161	122,280	183	131,624	109,063	132	109,195	240,819	521
1993	0	605	605	0	9,346	115,964	134	125,444	106,064	54	106,118	231,562	521
1994	0	0	0	0	8,700	121,298	233	130,231	113,459	142	113,601	243,832	521
1995	0	0	0	0	7,641	122,830	413	130,884	102,323	91	102,414	233,298	521
1996	0	0	0	10	8,623	132,913	473	142,019	98,870	106	98,976	240,995	558
1997	0	0	0	18	7,841	131,527	350	139,736	98,205	35	98,240	237,976	546
1998	0	0	0	0	7,011	140,760	333	148,104	109,906	79	109,985	258,089	546
1999	0	0	0	12	7,375	152,447	351	160,185	111,709	37	111,746	271,931	630
2000	0	0	0	0	7,984	149,685	246	157,915	108,549	20	108,569	266,484	630
2001	0	0	0	16	7,249	126,157	169	133,591	85,052	119	85,171	218,762	630
2002	0	0	0	5	5,649	137,971	323	143,948	97,032	11	97,043	240,991	630
2003	0	0	0	0	4,819	132,109	128	137,056	85,011	57	85,068	222,124	646
2004	0	0	0	0	4,171	129,213	251	133,635	90,098	47	90,145	223,780	630
2005	0	0	0	0	3,730	127,671	201	131,602	109,692	27	109,719	241,321	630
2006	0	0	0	0	3,834	121,108	595	125,537	109,122	39	109,161	234,698	555
2007	0	0	0	0	3,549	121,652	288	125,489	96,882	1,039	97,921	223,410	555
2008	0	0	0	15	3,051	126,721	230	130,017	107,657	235	107,892	237,909	430
2009	0	0	0	0	3,382	117,596	214	121,192	83,134	443	83,577	204,769	430
2010	0	0	0	4	2,866	111,571	321	114,762	83,177	182	83,359	198,121	481
2011	452	3	455	0	2,505	106,391	261	109,157	87,208	47	87,255	196,412	478
2012	0	0	0	4	2,803	95,486	368	98,661	91,904	134	92,038	190,699	484
2013	0	0	0	10	2,302	88,950	569	91,831	85,343	104	85,447	177,278	505
2014	0	0	0	4	2,741	95,559	499	98,803	109,527	79	109,606	208,409	488
2015	465	0	465	9	3,401	119,740	645	123,795	99,420	101	99,521	223,316	461
2016*	317	0	317	0	3,361	99,844	668	103,873	87,463	142	87,605	191,478	470
2017*	317	0	317	0	3,361	91,027	668	95,056	87,057	142	87,199	182,255	477
2018*	317	0	317	0	3,361	91,223	668	95,252	87,318	142	87,460	182,712	484
2019*	317	0	317	0	3,361	91,419	668	95,448	87,580	142	87,722	183,170	491
2020*	317	0	317	0	3,361	91,615	668	95,644	87,580	142	87,985	183,629	498

APO TERMINAL AREA FORECAST DETAIL REPORT

Forecast Issued January 2017

Montgomery-Gibbs Executive Airport

	Enplanements			AIRCRAFT OPERATIONS								
				Itinerant Operations				Local Operations				
Fiscal Year	**Air Carrier**	**Commuter**	**Total**	**Air Carrier**	**Air Taxi & Commuter**	**GA**	**Military**	**Total**	**Civil**	**Military**	**Total**	**Total Ops**	**Based Aircraft**
2021*	317	0	317	0	3,361	91,812	668	95,841	88,106	142	88,248	184,089	505
2022*	317	0	317	0	3,361	92,009	668	96,038	88,370	142	88,512	184,550	512
2023*	317	0	317	0	3,361	92,206	668	96,235	88,636	142	88,778	185,013	521
2024*	317	0	317	0	3,361	92,403	668	96,432	88,902	142	89,044	185,476	528
2025*	317	0	317	0	3,361	92,601	668	96,630	89,169	142	89,311	185,941	535
2026*	317	0	317	0	3,361	92,800	668	96,829	89,437	142	89,579	186,408	542
2027*	317	0	317	0	3,361	92,999	668	97,028	89,705	142	89,847	186,875	549
2028*	317	0	317	0	3,361	93,199	668	97,228	89,974	142	90,116	187,344	556
2029*	317	0	317	0	3,361	93,399	668	97,428	90,244	142	90,386	187,814	563
2030*	317	0	317	0	3,361	93,600	668	97,629	90,514	142	90,656	188,285	571
2031*	317	0	317	0	3,361	93,801	668	97,830	90,785	142	90,927	188,757	579
2032*	317	0	317	0	3,361	94,003	668	98,032	91,058	142	91,200	189,232	587
2033*	317	0	317	0	3,361	94,205	668	98,234	91,332	142	91,474	189,708	595
2034*	317	0	317	0	3,361	94,407	668	98,436	91,606	142	91,748	190,184	603
2035*	317	0	317	0	3,361	94,609	668	98,638	91,881	142	92,023	190,661	612
2036*	317	0	317	0	3,361	94,812	668	98,841	92,157	142	92,299	191,140	621
2037*	317	0	317	0	3,361	95,016	668	99,045	92,433	142	92,575	191,620	630
2038*	317	0	317	0	3,361	95,220	668	99,249	92,710	142	92,852	192,101	639
2039*	317	0	317	0	3,361	95,425	668	99,454	92,988	142	93,130	192,584	648
2040*	317	0	317	0	3,361	95,630	668	99,659	93,268	142	93,410	193,069	657
2041*	317	0	317	0	3,361	95,836	668	99,865	93,548	142	93,690	193,555	666
2042*	317	0	317	0	3,361	96,042	668	100,071	93,829	142	93,971	194,042	675
2043*	317	0	317	0	3,361	96,249	668	100,278	94,111	142	94,253	194,531	684
2044*	317	0	317	0	3,361	96,456	668	100,485	94,393	142	94,535	195,020	693
2045*	317	0	317	0	3,361	96,663	668	100,692	94,676	142	94,818	195,510	703

Appendix C

Air Traffic Activity Data System (ATADS)

ATADS : Airport Operations : Standard Report

From 01/1990 To 03/2017 | Facility=MYF

Calendar Year	Facility	Air Carrier	Air Taxi	Itinerant General Aviation	Military	Total	Local Civil	Local Military	Local Total	Total Operations
1990	MYF	0	6,177	138,696	214	145,087	124,488	48	124,536	269,623
1991	MYF	0	8,001	131,398	148	139,547	114,907	50	114,957	254,504
1992	MYF	0	9,082	117,762	150	126,994	106,306	112	106,418	233,412
1993	MYF	0	9,623	118,296	137	128,056	110,373	50	110,423	238,479
1994	MYF	0	8,248	121,002	303	129,553	111,784	168	111,952	241,505
1995	MYF	0	7,672	124,003	355	132,030	95,694	123	95,817	227,847
1996	MYF	28	8,810	132,852	591	142,281	101,893	57	101,950	244,231
1997	MYF	0	7,222	132,570	242	140,034	100,727	27	100,754	240,788
1998	MYF	0	7,100	147,243	384	154,727	111,499	82	111,581	266,308
1999	MYF	12	7,899	153,626	366	161,903	112,936	38	112,974	274,877
2000	MYF	0	7,729	142,160	161	150,050	101,575	20	101,595	251,645
2001	MYF	19	6,812	123,505	192	130,528	84,547	114	84,661	215,189
2002	MYF	2	5,436	143,058	291	148,787	96,847	9	96,856	245,643
2003	MYF	0	4,723	127,645	151	132,519	83,983	69	84,052	216,571
2004	MYF	0	3,957	130,170	282	134,409	95,366	40	95,406	229,815
2005	MYF	0	3,739	126,780	166	130,685	114,511	38	114,549	245,234
2006	MYF	0	3,756	122,732	742	127,230	104,965	503	105,468	232,698
2007	MYF	0	3,428	121,088	156	124,672	97,069	751	97,820	222,492
2008	MYF	15	3,114	125,137	237	128,503	103,074	63	103,137	231,640
2009	MYF	0	3,232	115,034	203	118,469	83,719	440	84,159	202,628
2010	MYF	4	3,023	108,043	319	111,389	80,291	188	80,479	191,868
2011	MYF	2	2,251	106,819	298	109,370	89,747	24	89,771	199,141
2012	MYF	6	2,741	91,930	382	95,059	88,564	161	88,725	183,784
2013	MYF	8	2,433	91,117	619	94,177	91,915	100	92,015	186,192
2014	MYF	2	3,151	100,995	525	104,673	110,368	79	110,447	215,120
2015	MYF	9	3,143	118,774	587	122,513	91,245	90	91,335	213,848
2016	MYF	0	3,655	97,429	717	101,801	98,680	187	98,867	200,668
2017	MYF	0	1,115	22,178	214	23,507	25,360	16	25,376	48,883
Sub-Total for MYF		107	147,272	3,332,042	9,132	3,488,553	2,732,433	3,647	2,736,080	6,224,633
Total:		**107**	**147,272**	**3,332,042**	**9,132**	**3,488,553**	**2,732,433**	**3,647**	**2,736,080**	**6,224,633**
										223,307
										215,002

Report created on Thu May 18 16:23:30 EDT 2017

Sources: Air Traffic Activity System (ATADS)

Appendix D

National Based Aircraft Inventory Program Data

Federal Aviation Administration

FAQ's | User Guide | Security Notice | Contact us / Help Desk

National Based Aircraft Inventory Program

powered by gcr

My Airport » Version 5.7.0 You are logged in as mschmitzer . Logout

MONTGOMERY-GIBBS EXECUTIVE (MYF) SAN DIEGO, CA

Airport Details Users Report »
Edit Counts

Final Cleanup after the Aircraft List has been updated: Last Edit: 03/24/2017

Step 1. Eliminate any N-Number Duplicates in your own list. ?'s 0 Find these

Step 2. Review N-Numbers Reported by Other Airports. ?'s. 0 Find These Rpt

Step 3. Review '*' Commented N-Numbers. ?'s. 0 Find these Rpt

Step 4. Review N-Numbers not found in FAA Aircraft Reg. ?'s. 0 Find these

Step 5. Confirm your Counts. ?'s Show all aircraft

Preferred Contact Comments Airport
Matthew Schmitzer Manager 858-573-1440 MSchmitzer@sandiego.gov
Edit
n/a

Refresh

COUNT DATA

?

	5010 3/30/2017	Inventory	Currently Validated
Single Engine	430	497	497
Multi Engine	48	65	65
Jet	7	11	11
Helicopter	14	18	18
Total Single, Multi, Jet, and Heli	499	591	591
Glider	1	3	***
Military	0	***	***
Ultra-light	0	0	***
Non 5010 aircraft types		6	
Total Found in FAA Acft. Reg. Data		600	TOTAL 591
Total Not Found in FAA Acft. Reg. Data		0	
Total Entered in BasedAircraft.com		600	

Confirm aircraft data

Last Confirmed: 3/24/2017 by Matthew Schmitzer

N-Number Search: Go

Show: All aircraft

Remove Filter

Include deleted: No

Based Aircraft at this Airport

Add aircraft

Use multiple pages for faster loading?

= Edit = Delete IFR

N-Number	Make / Model	Type	Owner	Added	Type from FAA Aircraft Registration	Reported by Other Apts
N100FB	Beechcraft Bonanza P35	Single Engine		2/16/2010	Single Engine	
N100UW		Multi Engine		3/20/2017	Multi Engine	
N101G		Multi Engine		3/16/2017	Multi Engine	
N101GL		Single Engine		3/20/2017	Single Engine	
N104RM	Aircraft was seen during "Gibbs" hangar inspections. PIPER AEROSTAR 601P	Multi Engine		8/22/2007	Multi Engine	
N10F	FALCON 10			10/4/2007	Jet	
N10VE	EAGLE II RV	Single Engine		8/22/2007	Single Engine	

N10YV	Piper Supercub	Single Engine	2/16/2010	Single Engine
N1111Z	BONANZA	Single Engine	8/22/2007	Single Engine
N111TT	CIRRUS	Single Engine	8/22/2007	Single Engine
N11376	C-150L	Single Engine	8/22/2007	Single Engine
N1138D			9/28/2016	Single Engine
N113FT	Piper Meridian	Single Engine	2/18/2010	Single Engine
N1142Z	MOONEY M20J-201	Single Engine	8/22/2007	Single Engine
N114DT	ROCKWELL CDR 114-B	Single Engine	8/22/2007	Single Engine
N115CE		Single Engine	3/20/2017	Single Engine
N1172W	Aircraft was seen during "Gibbs" hangar inspections. M20K		8/5/2016	Single Engine
N1193W	GRUMMAN AG-5B	Single Engine	8/22/2007	Single Engine
N120MP	BONANZA V35	Single Engine	8/22/2007	Single Engine
N123FU		Single Engine	3/16/2017	Single Engine
N1275W	C-206	Single Engine	8/22/2007	Single Engine
N127MH		Single Engine	3/20/2017	Single Engine
N1283U	Cessna 172	Single Engine	2/18/2010	Single Engine
N128DP	PIPER CHEROKEE 140	Single Engine	8/22/2007	Single Engine
N129MD	Plane does not fly. C-175A	Single Engine	8/22/2007	Single Engine
N129SA		Single Engine	3/16/2017	Single Engine
N1339R	A/C is now based at MYF. Coast Flight Training. GRUMMAN AA-5A CHEETAH	Single Engine	8/22/2007	Single Engine
N13639	Cessna 172	Single Engine	2/18/2010	Single Engine
N136TE		Jet	3/16/2017	Jet
N1371D	C-170A	Single Engine	8/22/2007	Single Engine
N141PM	Jack Rosen One Design	Single Engine	6/1/2016	Single Engine
N141US		Single Engine	3/15/2017	Single Engine
N1424X	WARRIOR	Single Engine	8/22/2007	Single Engine
N144TP	R-112 COMMANDER	Single Engine	8/22/2007	Single Engine
N1459		Multi Engine	3/16/2017	Multi Engine

N145LF		Helicopter	3/16/2017	Helicopter
N1501J	COMMANDER 112TC	Single Engine	8/22/2007	Single Engine
N15068	SENECA	Multi Engine	8/22/2007	Multi Engine
N1512S		Single Engine	3/20/2017	Single Engine
N153NL	Beechcraft Baron	Multi Engine	2/18/2010	Multi Engine
N155MV		Single Engine	3/16/2017	Single Engine
N1581H	C-177RG	Single Engine	8/22/2007	Single Engine
N159BB	LongEZ	Single Engine	6/2/2016	Single Engine
	The aircraft was just recently seen during hangar inspections at MYF. Registration number is actually 159BB not 195BB			
N15LX		Single Engine	3/20/2017	Single Engine
N16069	MD-369E	Helicopter	8/22/2007	Helicopter
N1611X	C-T210L	Single Engine	8/22/2007	Single Engine
N1621L			9/28/2016	(Non 5010)
N162MD	DEBONAIR	Single Engine	8/22/2007	Single Engine
N166FA	CITATION	Multi Engine	8/22/2007	Jet
N16SH	Cessna 150	Single Engine	2/18/2010	Single Engine
N1715N	C-120	Single Engine	8/22/2007	Single Engine
N172RW	172N	Single Engine	8/22/2007	Single Engine
N1740G	BONANZA	Single Engine	8/22/2007	Single Engine
N175SA	KING AIR 200		10/4/2007	Multi Engine
N177CF	CESSNA C-177B	Single Engine	8/22/2007	Single Engine
N177HC	PIPER PA 46-350P		10/4/2007	Single Engine
N1783G	BEECHCRAFT BONANZA BE35-B33	Single Engine	8/22/2007	Single Engine
N17842	BONANZA	Single Engine	8/22/2007	Single Engine
N17846	BEECHCRAFT BONANZA F33A	Single Engine	8/22/2007	Single Engine
N1784R		Single Engine	3/20/2017	Single Engine
	A/C is now based at MYF. Plus One Flyers.			
N1786R	Cessna 182RG	Single Engine	2/16/2010	Single Engine
N1820Z		Single Engine	3/20/2017	Single Engine
N1825N	C-120	Single Engine	8/22/2007	Single Engine

N1839R	C-185	Single Engine	6/2/2016	Single Engine
	The aircraft was just recently seen during hangar inspections at MYF.			
N183V		Single Engine	3/16/2017	Single Engine
N1846Q	C-177RG	Single Engine	8/22/2007	Single Engine
N186SX		Single Engine	3/15/2017	Single Engine
N18745	Cessna 150	Single Engine	2/16/2010	Single Engine
N188PC	pilatus pc12		10/10/2008	Single Engine
N188RA	Decathalon	Single Engine	2/16/2010	Single Engine
N189DS	Diamond DA-40	Single Engine	2/18/2010	Single Engine
N18GE	Piper Supercub	Single Engine	2/16/2010	Single Engine
N19015			2/10/2016	Single Engine
N192BC	CIRRUS SR-22	Single Engine	8/22/2007	Single Engine
N19345		Single Engine	3/20/2017	Single Engine
	*			
N1976T	GRUMMAN AA-5B	Single Engine	8/22/2007	Single Engine
N1TY		Jet	3/20/2017	Jet
	A/C is now based at MYF. Seen everyday on Crownair Ramp.			
N201DG	N20J	Single Engine	8/22/2007	Single Engine
N201NV	MOONEY	Single Engine	8/22/2007	Single Engine
N20239	C-172	Single Engine	8/22/2007	Single Engine
N202WT		Helicopter	3/16/2017	Helicopter
N2049W	BE-35	Single Engine	8/22/2007	Single Engine
N20BY	SOCATA TB10	Single Engine	8/22/2007	Single Engine
N2103S	C-210L	Single Engine	8/22/2007	Single Engine
N210BX	C-210	Single Engine	8/22/2007	Single Engine
N210JC	CESSNA C-T210M	Single Engine	8/22/2007	Single Engine
	Spoke with the owner of the aircraft, he confirmed that the plane is based at MYF. Permanent tenent.			
N21226		Single Engine	3/20/2017	Single Engine
N2122N	PIPER TURBO ARROW	Single Engine	8/22/2007	Single Engine
N212DP	T28	Single Engine	2/18/2010	Single Engine
N21372	PIPER	Single	8/22/2007	Single Engine

	TURBO LANCE II	Engine		
N213AF	C-150M	Single Engine	8/22/2007	Single Engine
N2145S	C-T210L	Single Engine	8/22/2007	Single Engine
N214MJ	RV-6A	Single Engine	8/22/2007	Single Engine
N215AF	C-172N	Single Engine	8/22/2007	Single Engine
N215RV	Bellanca		8/5/2016	Single Engine
N216AF	C-172P	Single Engine	8/22/2007	Single Engine
N21754	Cessna 172	Single Engine	2/18/2010	Single Engine
N21796		Single Engine	3/20/2017	Single Engine
N217AF	C-177RG	Single Engine	8/22/2007	Single Engine
N21MX			2/10/2016	Single Engine
N21SH	V-35		8/5/2016	Single Engine
N22136	Piper Turbo Lance	Single Engine	2/18/2010	Single Engine
N221HR	Beechcraft Baron	Multi Engine	2/18/2010	Multi Engine
N2227H	PA-44-180 SEMINOLE	Multi Engine	8/22/2007	Multi Engine
N223RW			9/28/2016	Single Engine
N223WW	PA-28R-201 ARROWIII	Single Engine	8/22/2007	Single Engine
N2267A	BE-35	Single Engine	8/22/2007	Single Engine
N22761	CESSNA 182		10/4/2007	Single Engine
N228LL	PIPER MALIBU	Single Engine	8/22/2007	Single Engine
N231AJ	MOONEY M20K	Single Engine	8/22/2007	Single Engine
N2349E		Single Engine	3/20/2017	Single Engine
N234SB	CESSNA P210		10/4/2007	Single Engine
N2363T	NAVION G	Single Engine	8/22/2007	Single Engine
N2370X	C-206	Single Engine	8/22/2007	Single Engine
N2386G	CESSNA 182	Single Engine	8/22/2007	Single Engine
N240XP	MICHEL FITHIAN FALCON XP	Single Engine	8/22/2007	Single Engine
N241SG	Mooney M20 Ovation	Single Engine	2/16/2010	Single Engine
N2425M	PA-28	Single Engine	8/22/2007	Single Engine

N24334	C-172	Single Engine	8/22/2007	Single Engine
N2436F	C-172S	Single Engine	8/22/2007	Single Engine
N2436Q	172S	Single Engine	8/22/2007	Single Engine
N2441E	Cessna 172	Single Engine	2/18/2010	Single Engine
N2462P	C-182	Single Engine	8/22/2007	Single Engine
N24671	C-172R	Single Engine	8/22/2007	Single Engine
N24780	C-172R	Single Engine	8/22/2007	Single Engine
N248G			9/28/2016	Single Engine
N24GN	KING AIR 200		10/4/2007	Multi Engine
N24L	BEECH S-35	Single Engine	8/22/2007	Single Engine
N25055	PA-28	Single Engine	8/22/2007	Single Engine
N2508W	SIERRA B24R	Single Engine	8/22/2007	Single Engine
N252PR	Mooney M20	Single Engine	2/18/2010	Single Engine
N253TM	Mooney M20M	Single Engine		Single Engine
N2563C		Single Engine	3/20/2017	Single Engine
N257K	Eclipse 500	Jet	2/16/2010	Jet
N25860	C-152	Single Engine	8/22/2007	Single Engine
N2596K	C-A185F	Single Engine	8/22/2007	Single Engine
N25FS		Jet	10/10/2008	Jet
N262CM	C-T210L	Single Engine	8/22/2007	Single Engine
N262NJ		Single Engine	3/20/2017	Single Engine
N2630V	C-177RG	Single Engine	8/22/2007	Single Engine
N264AT	Piper Seminole	Multi Engine	2/18/2010	Multi Engine
N265AT	Aircraft is located at San Diego Branch of ATP Piper Seminole	Multi Engine	2/18/2010	Multi Engine
N265WD	Aircraft is located at the San Diego branch of ATP RV-10	Single Engine	8/5/2016	Single Engine
N26675			9/28/2016	Single Engine
N2726E	C-172	Single Engine	8/22/2007	Single Engine
N2764Q	CESSNA C-182	Single Engine	8/22/2007	Single Engine
N2818M	PIPER	Single	8/22/2007	Single Engine

	ARCHER II	Engine		
N282HP		Single Engine	3/16/2017	Single Engine
N2847H		Single Engine	3/20/2017	Single Engine
N28515	AA5		8/23/2016	Single Engine
N2875K	C-180	Single Engine	8/22/2007	Single Engine
N28819	AA5B	Single Engine	8/22/2007	Single Engine
N28RG	CESSNA 340	Multi Engine	8/22/2007	Multi Engine
N28RJ	C-172RG	Single Engine	8/22/2007	Single Engine
N29028	Cessna 172	Single Engine	2/18/2010	Single Engine
N2903A	PA-28-181 ARCHER II	Single Engine	8/22/2007	Single Engine
N29143		Single Engine	3/16/2017	Single Engine
N291PA		Multi Engine	3/16/2017	Multi Engine
N291T	BARON	Multi Engine	8/22/2007	Multi Engine
N2982M			2/10/2016	Single Engine
N30002	Piper Supercub	Single Engine	2/16/2010	Single Engine
N301MS	CESSNA 172		10/4/2007	Single Engine
N302RT	PA-32	Single Engine	8/22/2007	Single Engine
N3036Y		Single Engine	3/16/2017	Single Engine
N3039S	A/C is now based at MYF. Coast Flight Training. SOCATA TB20 TRINIDAD	Single Engine	8/22/2007	Single Engine
N3062Y	PIPER ARCHER II	Single Engine	8/22/2007	Single Engine
N306SR	Cirrus SR20	Single Engine	2/18/2010	Single Engine
N30868	C-177B CARDINAL	Single Engine	8/22/2007	Single Engine
N3091B		Single Engine	3/20/2017	Single Engine
N30JL	AMERICAN AA-1B	Single Engine	8/22/2007	Single Engine
N3133W	DEBONAIR	Single Engine	8/22/2007	Single Engine
N3150W	Varga	Single Engine	2/18/2010	Single Engine
N3159A		Single Engine	3/20/2017	Single Engine
N31735	Piper Turbo Arrow	Single Engine	2/18/2010	Single Engine
N3187M	PIPER PA-12	Single Engine	8/22/2007	Single Engine

N31GH	MOONEY	Single Engine	8/22/2007	Single Engine
N31LU		Single Engine	3/16/2017	Single Engine
N320GR	Lancair	Single Engine	2/18/2010	Single Engine
N320PL	P-AIRE-320	Single Engine	8/22/2007	Single Engine
N323EH		Single Engine	3/20/2017	Single Engine
N3242		Single Engine	2/18/2010	Single Engine
N3277S	Cessna 182	Single Engine	2/18/2010	Single Engine
N327ED	RV-4		8/5/2016	Single Engine
N3289F	MOONEY	Single Engine	8/22/2007	Single Engine
N329B	BEECH G-35	Single Engine	8/22/2007	Single Engine
N329CF		Jet	3/15/2017	Jet
N332L			2/10/2016	Single Engine
N333CX	COMANCHE PA-24-260	Single Engine	8/22/2007	Single Engine
N336JA	RV-8	Single Engine	6/2/2016	Single Engine
N33855			2/10/2016	(Non 5010)
N3386E	C-172	Single Engine	8/22/2007	Single Engine
N339SP	C-172S	Single Engine	8/22/2007	Single Engine
N33LU		Single Engine	3/16/2017	Single Engine
N340U	C-340A	Multi Engine	8/22/2007	Multi Engine
N3430T	CESSNA C-177	Single Engine	8/22/2007	Single Engine
N34650	STINSON 10A	Single Engine	8/22/2007	Single Engine
N3485X			2/10/2016	Single Engine
N3491Y	C-180 SKYWAGON	Single Engine	8/22/2007	Single Engine
N354TA	C-152	Single Engine	8/22/2007	Single Engine
N35922	C-206	Single Engine	8/22/2007	Single Engine
N3595Z	Piper Super Cub	Single Engine	2/18/2010	Single Engine
N3611N	MOONEY MARK M20G	Single Engine	8/22/2007	Single Engine
N3655H	MOONEY M20K	Single Engine	8/22/2007	Single Engine

N365PS	AA-5A			8/5/2016	Single Engine
N3676L				9/28/2016	Single Engine
N3692Q	BEECHCRAFT BONANZA A36TC	Single Engine		8/22/2007	Single Engine
N3716M	PIPER SUPER CUB PA-12	Single Engine		8/22/2007	Single Engine
N372TA	Cessna 172	Single Engine		2/18/2010	Single Engine
N3787N	BEECHCRAFT BONANZA B35	Single Engine		8/22/2007	Single Engine
N3788R	CESSNA C-172H	Single Engine		8/22/2007	Single Engine
N37BA	LANCAIR LC-40-550FG	Single Engine	Owner of A/C is a full time resident of San Diego CA.	2/16/2010	Single Engine
N3803E	DUCHESS	Multi Engine		8/22/2007	Multi Engine
N38168	BONANZA A36	Single Engine		8/22/2007	Single Engine
N38291				9/28/2016	Single Engine
N3829P	C-P210N	Single Engine	Aircraft seen during NAC hangar inspection.	8/22/2007	Single Engine
N38593	Piper J5	Single Engine		2/16/2010	Single Engine
N38603		Single Engine		3/16/2017	Single Engine
N38605	ARROW III PA-28R-201T	Single Engine	A/C is now based at MYF. Coast Flight Training.	8/22/2007	Single Engine
N392W		Single Engine		3/20/2017	Single Engine
N39457		Single Engine		3/16/2017	Single Engine
N3950M	PIPER CHEROKEE SIX	Single Engine		8/22/2007	Single Engine
N39639	Piper PA-32	Single Engine		6/1/2016	Single Engine
N3972V	C-170	Single Engine		8/22/2007	Single Engine
N3997Y	C-210	Single Engine		8/22/2007	Single Engine
N3SK	GRUMMAN	Single Engine		8/22/2007	Single Engine
N400GM		Multi Engine		3/16/2017	Multi Engine
N404V	BONANZA V35P	Single Engine		8/22/2007	Single Engine
N40972	PIPER PA-28-140	Single Engine		8/22/2007	Single Engine
N40BE	Varieze	Single Engine		6/2/2016	(Non 5010)
N4109K	Laister Sailplane LP-49 LP-49	Glider		6/1/2016	Single Engine
N411RJ	KING AIR	Multi Engine		8/22/2007	Multi Engine

N412DJ	CIRRUS	Single Engine	8/22/2007	Single Engine
N4135D		Single Engine	3/16/2017	Single Engine
	A/C is now based at MYF. Coast Flight Training.			
N414DL	CESSNA C-414	Multi Engine	8/22/2007	Multi Engine
N414RW	CESSNA CHANCELLOR 414A		10/4/2007	Multi Engine
N41520	PIPER ARROW	Single Engine	8/22/2007	Single Engine
N4169R	PIPER CHEROKEE SIX	Single Engine	8/22/2007	Single Engine
N4172D		Single Engine	3/16/2017	Single Engine
	A/C is now based at MYF. Coast Flight Training.			
N41757		Single Engine	3/16/2017	Single Engine
	A/C is now based at MYF. Coast Flight Training.			
N419ST		Single Engine	3/16/2017	Single Engine
N4203P	C-172R	Single Engine	8/22/2007	Single Engine
N421AX	C-421	Multi Engine	8/22/2007	Helicopter
N421BJ	BARON	Multi Engine	8/22/2007	Multi Engine
N421SM			2/10/2016	Multi Engine
N421WN	C-421	Multi Engine	8/22/2007	Multi Engine
N42242	Cessna 182	Single Engine	2/18/2010	Single Engine
N4232F	PIPER PA-28-140	Single Engine	8/22/2007	Single Engine
N4255T		Single Engine	3/20/2017	Single Engine
N425F		Multi Engine	3/15/2017	Multi Engine
N42764	WARRIOR	Single Engine	8/22/2007	Single Engine
N427MT	BELL 407		10/4/2007	Helicopter
N42946			9/28/2016	Single Engine
N4297Y	Piper Turbo Arrow	Single Engine	2/18/2010	Single Engine
N42LP	Laister Sailplane LP-49	Glider	6/1/2016	Glider
N4306H	MOONEY	Single Engine	8/22/2007	Single Engine
N43160	ARCHER	Single Engine	8/22/2007	Single Engine
N432AL	Cessna 172	Single Engine	2/18/2010	Single Engine
	Aircraft owner has a longterm lease for a hangar here at MYF. Aircraft registration address is actually an address at the airport.			
N4363Q	MALIBU	Single Engine	8/22/2007	Single Engine
N436CS		Single	8/5/2016	Single Engine

	C-172	Engine		
N4389X		Single Engine	3/20/2017	Single Engine
	A/C is now based at MYF. Plus One Flyers.			
N43983		Single Engine	3/16/2017	Single Engine
N440JP	Diamond	Single Engine	2/18/2010	Single Engine
N441SB		Multi Engine	3/16/2017	Multi Engine
N4427P	BELL 47G-2	Helicopter	8/22/2007	Helicopter
N4440K	CESSNA C-421	Multi Engine	8/22/2007	Multi Engine
N4485U			9/28/2016	Single Engine
N44891	PIPER TURBO DAKOTA	Single Engine	8/22/2007	Single Engine
N4496X	Piper Warrior	Single Engine	2/18/2010	Single Engine
	Aircraft is no longer based in Palos Alto. New owner lives in San Diego.			
N449PA		Multi Engine	3/16/2017	Multi Engine
	A/C is now based at MYF. Coast Flight Training.			
N44ZW	BELLANCA 8KCAB	Single Engine	8/22/2007	Single Engine
N45250	C-177RG	Single Engine	8/22/2007	Single Engine
N4526L	GRUMAN TIGER AA-5A	Single Engine	8/22/2007	Single Engine
N4539L	GRUMMAN TIGER	Single Engine	8/22/2007	Single Engine
N453WM			9/28/2016	Single Engine
N45582	C-150M	Single Engine	8/22/2007	Single Engine
N456BR	C-P210N	Single Engine	8/22/2007	Single Engine
N456MP		Single Engine	3/20/2017	Single Engine
N45740	LUSCOMBE 8A	Single Engine	8/22/2007	Single Engine
N4624K	CESSNA P210	Single Engine	8/22/2007	Single Engine
N4625G	C-172N	Single Engine	8/22/2007	Single Engine
N46275	C-152	Single Engine	8/22/2007	Single Engine
N462MA		Multi Engine	3/16/2017	Multi Engine
N4649L	C-152	Single Engine	8/22/2007	Single Engine
N464GS	Cessna 206	Single Engine	2/18/2010	Single Engine
N4658F	Cessna 206	Single Engine	2/18/2010	Single Engine
	Aircraft has been sold to a new owner who is based in San Diego.			
N4688E	CHAMPION	Single	8/22/2007	Single Engine

	7EC	Engine		
N4728E	CHAMPION 7EC	Single Engine	2/16/2010	Single Engine
N47454	Taylorcraft 65	Single Engine	2/18/2010	Single Engine
N47657	CESSNA C-172N	Single Engine	8/22/2007	Single Engine
N476PS	Diamond	Single Engine	2/18/2010	Single Engine
N47885	PA-28-181 ARCHER II	Single Engine	8/22/2007	Single Engine
N479HB	CESSNA 206/G		10/4/2007	Single Engine
N48007	SH-4		8/5/2016	Single Engine
N480MA	MITSUBISHI MU2	Multi Engine	8/22/2007	Multi Engine
N4844V	C-172RG	Single Engine	8/22/2007	Single Engine
N4870H	VAGABOND PA-15	Single Engine	8/22/2007	Single Engine
N4918Y	C-210	Single Engine	8/22/2007	Single Engine
N4922D	C-172	Single Engine	8/22/2007	Single Engine
N4955L	ARROW PA-28R-180	Single Engine	8/22/2007	Single Engine
N4975F	C-172	Single Engine	8/22/2007	Single Engine
N4YL	LANCAIR 360		10/4/2007	Single Engine
N500T	TB-10	Single Engine	8/22/2007	Single Engine
N501AD	Cessna Citation	Jet	2/18/2010	Jet
N502GL	GT LAKES	Single Engine	8/22/2007	Single Engine
N5033T	C-182T	Single Engine	6/2/2016	Single Engine
N5034Q	CESSNA C310N	Multi Engine	8/22/2007	Multi Engine
N5054L	Bellanca	Single Engine	2/18/2010	Single Engine
N506RB		Single Engine	3/16/2017	Single Engine
N506WS	A/C is now based at MYF. Coast Flight Training.	Single Engine	3/20/2017	Single Engine
N50763	CESSNA 150	Single Engine	8/22/2007	Multi Engine
N50BD	Beech Bonanza	Single Engine	2/16/2010	Single Engine
N5106Q	CESSNA 210	Single Engine	8/22/2007	Single Engine
N5120C	BEECH 35 BONANZA	Single Engine	8/22/2007	Single Engine
N5140C	BEECHCRAFT BONANZA A35	Single Engine	8/22/2007	Single Engine

N5144J	C-340		6/2/2016	Multi Engine
N514NY		Single Engine	3/16/2017	Single Engine
N519XL	LIBERTY XL-2	Single Engine	8/22/2007	Single Engine
N51WA	BEECHCRAFT BONANZA FEE	Single Engine	8/22/2007	Single Engine
N5208D		Single Engine	3/20/2017	Single Engine
N5223E	C-172R	Single Engine	8/22/2007	Single Engine
	A/C is now based at MYF. Plus One Flyers.			
N52318	CESSNA C-172	Single Engine	8/22/2007	Single Engine
N5241D	Cessna 172	Single Engine	2/18/2010	Single Engine
N52503	MOONEY	Single Engine	8/22/2007	Single Engine
N52689	C-182		8/5/2016	Single Engine
N5268K	C-172	Single Engine	8/22/2007	Single Engine
	On Coast Aircraft leasehold.			
N5300M	ALON A2	Single Engine	8/22/2007	Single Engine
N5350N	Cessna 182	Single Engine	2/18/2010	Single Engine
N535JD	BONANZA	Single Engine	8/22/2007	Single Engine
	Aircraft owner has a long term lease here ay MYF. Aircraft registration address is located here at the airport.			
N53651		Single Engine	3/16/2017	Single Engine
N5388Y	CESSNA C-210N	Single Engine	8/22/2007	Single Engine
N5396E		Single Engine	3/20/2017	Single Engine
N5425M	Beech Sundowner	Single Engine	2/18/2010	Single Engine
N542PG	Cirrus SR 22	Single Engine	2/16/2010	Single Engine
N54391		Single Engine	3/16/2017	Single Engine
N543AL	C-172	Single Engine	8/22/2007	Single Engine
N545ND		Single Engine	3/16/2017	Single Engine
N54LG	Cirrus SR22	Single Engine	2/18/2010	Single Engine
N5550Q	MOONEY M20E	Single Engine	8/22/2007	Single Engine
N5593C	Beechcraft A36		6/1/2016	Single Engine
N559DS	DA40	Single Engine	8/22/2007	Single Engine
N55TP	Robinson R44	Helicopter	6/1/2016	Helicopter
N55WW			9/28/2016	**Single** Engine

N5619K	BONANZA	Single Engine	8/22/2007	Single Engine
N5633P	COMANCHE PA-24-180	Single Engine	8/22/2007	Single Engine
N5674D	TWIN BONANZA	Multi Engine	8/22/2007	Multi Engine
N567RM	BE-36	Single Engine	8/22/2007	Single Engine
N57355	Piper Turbo Arrow	Single Engine	2/18/2010	Single Engine
N57361		Single Engine	3/20/2017	Single Engine
N5808F	MOONEY M20K	Single Engine	8/22/2007	Single Engine
N58GR		Multi Engine	3/16/2017	Multi Engine
N58H	C-414A	Multi Engine	8/22/2007	Multi Engine
N58JG	BEECH BARON B58G		10/4/2007	Multi Engine
N5908S	BEECHCRAFT BONANZA 35-C33	Single Engine	8/22/2007	Single Engine
N59307	C-T210L	Single Engine	8/22/2007	Single Engine
N597SR	CIRRUS	Single Engine	8/22/2007	Single Engine
N5998M	C-421	Multi Engine	8/22/2007	Multi Engine
N59LF	Cessna 182	Single Engine	2/16/2010	Single Engine
N5BM		Single Engine	3/16/2017	Single Engine
N5UT	C-421	Multi Engine	8/22/2007	Multi Engine
N6009K	DUCHESS	Multi Engine	8/22/2007	Single Engine
N6012Z		Single Engine	3/16/2017	Single Engine
N6013X	BEECH 76	Multi Engine	8/22/2007	Multi Engine
N6029W	PA-28-140	Single Engine	8/22/2007	Single Engine
N60458	CESSNA T182T	Single Engine	8/22/2007	Single Engine
N6055Y	BONANZA A36	Single Engine	8/22/2007	Single Engine
N6056Q		Single Engine	3/20/2017	Single Engine
N60683	Cessna 172	Single Engine	2/16/2010	Helicopter
N6071S	BONANZA	Single Engine	8/22/2007	(Non 5010)
N6077C	PITTS	Single Engine	8/22/2007	Single Engine
N6089T	CESSNA C-210	Single Engine	8/22/2007	Single Engine

N60W		Single Engine	3/20/2017	Single Engine
N6103H	Piper J-3 Cub		6/1/2016	Single Engine
N61183	C-150J	Single Engine	8/22/2007	Single Engine
N616AR	Piper PA-32	Single Engine	6/1/2016	Single Engine
N61960	CESSNA 172M	Single Engine	8/22/2007	Single Engine
N6198B	C-182	Single Engine	8/22/2007	Single Engine
N619RJ	Eclipse 500	Jet	2/18/2010	Jet
N61DW	C-TU206G	Single Engine	8/22/2007	Single Engine
N6220K	CESSNA 152M	Single Engine	8/22/2007	Single Engine
N622CM	Cessna 172	Single Engine	2/16/2010	Single Engine
N6244P	PA-24		8/5/2016	Single Engine
N6253V	CESSNA C-182	Single Engine	8/22/2007	Single Engine
N6254J		Single Engine	3/16/2017	Single Engine
N625CD	CIRRUS SR22		10/4/2007	Single Engine
N6261R	C-182		6/2/2016	Single Engine
N626FT		Single Engine	3/20/2017	Single Engine
	A/C is now based at MYF. Plus One Flyers.			
N632SF	HOMEBUILT RV-4	Single Engine	8/22/2007	Single Engine
N6360D	172N	Single Engine	8/22/2007	Single Engine
N6365C	PIPER ARCHER II	Single Engine	8/22/2007	Single Engine
N637Q	BONANZA 35K	Single Engine	8/22/2007	Single Engine
N6455N	Beechcraft F-33	Single Engine	8/22/2007	Single Engine
N65845		Single Engine	3/20/2017	Single Engine
N6662H		Single Engine	3/20/2017	Single Engine
	Aircraft was seen during "Gibbs" hangar inspections.			
N6677L	BARON	Single Engine	8/22/2007	Multi Engine
N6706Y	DUCHESS	Multi Engine	8/22/2007	Multi Engine
N6715F	BEECHCRAFT C23	Single Engine	8/22/2007	Single Engine
N6716U	Mooney M20	Single Engine	2/18/2010	Single Engine
N678JM	Extra EA 300	Single Engine	2/16/2010	Single Engine
N67BB	Cessna	Single	2/16/2010	(Non 5010)

	A185F	Engine		
N6802H	Cessna 172	Single Engine	2/18/2010	Single Engine
N681SP	TWINCOM	Multi Engine	8/22/2007	Multi Engine
N684SR		Single Engine	3/20/2017	Single Engine
N688SR		Single Engine	3/20/2017	Single Engine
N6912C	ARCHER	Single Engine	8/22/2007	Single Engine
N6921N	MOONEY M20	Single Engine	8/22/2007	Single Engine
N693SR	Cirrus SR-22	Single Engine	6/1/2016	Single Engine
N6953L	C-310	Multi Engine	8/22/2007	Multi Engine
N6957V	MOONEY RANGER M20C	Single Engine	8/22/2007	Single Engine
N696F	BONANZA V35C	Single Engine	8/22/2007	Single Engine
N6AP	Beechcraft Bonanza	Single Engine	2/18/2010	Single Engine
N6L	SWEARINGEN SX300	Single Engine	8/22/2007	Single Engine
N701SD	C-R182	Single Engine	8/22/2007	Single Engine
N702SD	Cessna 182	Single Engine	2/18/2010	Single Engine
N70597	C-172S	Single Engine	8/22/2007	Single Engine
N7064D	ROBINSON SR22		10/4/2007	Helicopter
N707SD	Eurocopter 350	Helicopter	2/18/2010	Helicopter
N708SD	Eurocopter 350	Helicopter	2/18/2010	Helicopter
N709SD	Eurocopter 350	Helicopter	2/18/2010	Helicopter
N710SD	Eurocopter 350	Helicopter	2/18/2010	Helicopter
N710VE	RV-7	Single Engine	8/22/2007	Single Engine
N711YK	BEECHCRAFT BARON E55	Multi Engine	8/22/2007	Multi Engine
N7123F	Cessna 150	Single Engine	2/18/2010	Single Engine
N7142P	COMANCHE	Single Engine	8/22/2007	Single Engine
N7145U	Mooney M20	Single Engine	2/18/2010	Single Engine
	The aircraft owner now lives and is based in San Diego			
N714SX	C-152	Single Engine	8/22/2007	Single Engine
N717SN	Cirrus SR-22	Single Engine	6/1/2016	Single Engine
N721ZM	Grumman	Single	2/16/2010	Single Engine

	Tiger	Engine		
N722RJ	C-172	Single Engine	8/22/2007	Single Engine
N7233Y	TWIN COMANCHE	Multi Engine	8/22/2007	Multi Engine
N7257T	C-172R	Single Engine	8/22/2007	Single Engine
N726RJ	C-172N	Single Engine	8/22/2007	Single Engine
N727PX	U-15 Phoenix	Glider	6/2/2016	Glider
N7298R	BEECHCRAFT BONANZA F33A	Single Engine	8/22/2007	Single Engine
N72NG		Multi Engine	3/16/2017	Multi Engine
N72VJ	CITATION	Jet	8/22/2007	Jet
N731CY	CESSNA P210	Single Engine	8/22/2007	Single Engine
N732AD	C-T210L	Single Engine	8/22/2007	Single Engine
N7330C	Cessna 172	Single Engine	2/18/2010	Single Engine
N733FP	C-172	Single Engine	8/22/2007	Single Engine
	This aircraft is a derelict and will be removed from the City of San Diego managed tie-down area. Effective 8/31/2016.			
N733GK	Cessna 172	Single Engine	2/18/2010	Single Engine
N733JW		Single Engine	3/20/2017	Single Engine
N733NC		Single Engine	3/16/2017	Single Engine
N733UC	C-172N		8/22/2007	Single Engine
N734DN	C-172	Single Engine	8/22/2007	Single Engine
N734MY	C-172N	Single Engine	8/22/2007	Single Engine
N734VX	C-172	Single Engine	8/22/2007	Single Engine
N735EB	C-182Q	Single Engine	8/22/2007	Single Engine
N735WJ	CESSNA 182	Single Engine	8/22/2007	Single Engine
N7361Q	CESSNA C-182	Single Engine	8/22/2007	Single Engine
N736TB	C-172	Single Engine	8/22/2007	Single Engine
N737DD		Single Engine	3/20/2017	Single Engine
N737DE	C-172	Single Engine	8/22/2007	Single Engine
N737HY	C-172	Single Engine	8/22/2007	Single Engine
N737TZ	Cessna 172	Single Engine	2/18/2010	Single Engine
	Aircraft has a new owner who now lives in San Diego.			

N738FH	C-182RG	Single Engine		6/2/2016	Single Engine
	The aircraft was just recently seen during hangar inspections at MYF.				
N738GQ	Cessna 172	Single Engine		2/18/2010	Single Engine
	Aircraft is now owned by someone who is based in San Diego.				
N738LF	C-172	Single Engine		8/22/2007	Single Engine
N738LN	Cessna 172	Single Engine		2/18/2010	Single Engine
	A/C may be at KSEE as well.				
N738QA		Single Engine		3/20/2017	Single Engine
N738TB	C-172N	Single Engine		8/22/2007	Single Engine
N738ZY	Cessna 172	Single Engine		2/18/2010	Single Engine
N7417D	PA 22-150 TRIPACER	Single Engine		8/22/2007	Single Engine
N74199		Multi Engine		3/20/2017	Multi Engine
N745CA	C-421C	Multi Engine		8/22/2007	Multi Engine
N7469R	BONANZA	Single Engine		8/22/2007	Single Engine
N746CA		Multi Engine		3/16/2017	Multi Engine
N74SB	Steen Skybolt			6/2/2016	Single Engine
N7523N	BEECH 36	Single Engine		8/22/2007	Single Engine
N7542E	CITABRIA CHAMPTION 7ECA	Single Engine		8/22/2007	Single Engine
N75651	C-172	Single Engine		8/22/2007	Single Engine
N756RA	C-182	Single Engine		6/21/2016	Single Engine
	This is a new purchase.				
N756XM	C-T182RG	Single Engine		8/22/2007	Single Engine
N756YL	Cessna TR182	Single Engine		2/17/2010	Single Engine
N757NT	C-152	Single Engine		8/22/2007	Single Engine
N757PE	C-182RG	Single Engine		8/22/2007	Single Engine
N757R	CESSNA C-T182	Single Engine		8/22/2007	Single Engine
N7590K	Piper Cub	Single Engine		2/17/2010	Single Engine
N75WR	Experimental Vari EZE	Single Engine		2/17/2010	Single Engine
N763CA	C-421C	Multi Engine		8/22/2007	Single Engine
N7673N	BE-36	Single Engine		8/22/2007	Single Engine
N7691X	CESSNA C-172	Single Engine		8/22/2007	Single Engine
N76RH	BOWERS FLY BABY	Single		8/22/2007	Single Engine

	1A	Engine		
N774SP	C-172	Single Engine	8/22/2007	Jet
N777FX	SOCATA TBM 700 C2		10/4/2007	Single Engine
N777VF	CESSNA C-414	Multi Engine	8/22/2007	Multi Engine
N779R	Aircraft now based at NAC Hangar#42 EXTRA 300L		10/4/2007	Single Engine
N77AT	MOONEY M20J-201	Single Engine	8/22/2007	Single Engine
N77LH	LOVEAIR 360		8/5/2016	Single Engine
N77NG		Multi Engine	3/16/2017	Multi Engine
N7801A	CHEROKEE 6	Single Engine	8/22/2007	Single Engine
N7841R	The A/C owner is a full time resident of San Diego.		9/28/2016	Multi Engine
N787DF		Single Engine	3/16/2017	Single Engine
N78929	CESSNA C-172	Single Engine	8/22/2007	Single Engine
N78948	Mooney M20	Single Engine	2/18/2010	Single Engine
N79442	CESSNA C-172	Single Engine	8/22/2007	Single Engine
N7974D	BEECH H-35 BONANZA	Single Engine	8/22/2007	Single Engine
N797RJ		Single Engine	3/20/2017	Single Engine
N7DU	BEECHCRAFT BONANZA F33	Single Engine	8/22/2007	Single Engine
N80669	C-150		8/5/2016	Single Engine
N8068U		Single Engine	3/20/2017	Single Engine
N807JS	Bell 412HP	Helicopter	2/18/2010	Helicopter
N80CD	Cirrus SR22	Single Engine	2/18/2010	Single Engine
N8109N	Beechcraft Bonanza	Single Engine	2/18/2010	Single Engine
N811DR		Single Engine	3/20/2017	Single Engine
N811LE	PA-30	Multi Engine	8/5/2016	Multi Engine
N811TW		Single Engine	3/20/2017	Single Engine
N8148F	Cirrus SR22	Single Engine	2/17/2010	Single Engine
N8150B	C-172		6/2/2016	Single Engine
N8162H	GLASAIR-SUPER-2SRG		8/5/2016	Single Engine
N8179T	Cessna	Single	2/17/2010	Single Engine

	175	Engine		
N8183R	Beechcraft V-35		6/2/2016	Single Engine
N81852	EXPERIMENTAL PLANE	Single Engine	8/22/2007	Single Engine
N8204D	BONANZA H35	Single Engine	8/22/2007	Single Engine
N8210M		Single Engine	3/20/2017	Single Engine
N821BT	CESSNA C-310R	Multi Engine	8/22/2007	Multi Engine
N8228Z	A-36	Single Engine	8/22/2007	Single Engine
N8229Q	CESSNA C-414	Multi Engine	8/22/2007	Multi Engine
N8236E	Beech Bonanza	Single Engine	2/17/2010	Single Engine
N823TH	Mooney M20	Single Engine	2/17/2010	Single Engine
N8254B	SARATOGA PA-32R-301T	Single Engine	8/22/2007	Single Engine
N825KA		Multi Engine	3/16/2017	Multi Engine
N8275J	A/C is now based at MYF. Confirmed by Airport Ops. 1/1/2017 Varga	Single Engine	2/18/2010	Single Engine
N8276H	PA-28		6/2/2016	Single Engine
N82JT	BEECHCRAFT BONANZA	Single Engine	8/22/2007	Single Engine
N82RG	Experimental Vari EZE	Single Engine	2/17/2010	Single Engine
N831TD		Single Engine	3/15/2017	Single Engine
N83679	Piper Cub	Single Engine	6/2/2016	Single Engine
N8371P	COMANCHE PA-24-180	Single Engine	8/22/2007	Single Engine
N84037	CESSNA C-172	Single Engine	8/22/2007	Single Engine
N8425U	C-177F	Single Engine	8/22/2007	Single Engine
N8451	WARRIOR	Single Engine	8/22/2007	Single Engine
N851DS	C-182	Single Engine	8/22/2007	Single Engine
N852JP		Multi Engine	3/16/2017	Multi Engine
N8561N	PA-28-235	Single Engine	8/22/2007	Single Engine
N8585N	Piper Cherokee	Single Engine	2/17/2010	Single Engine
N858SC		Single Engine	3/20/2017	Single Engine
N8612B	C172	Single Engine	8/22/2007	Single Engine

N862DP	RUTAN VARIEZE	Single Engine		8/22/2007	Single Engine
N86PS	Pitts Special	Single Engine		2/18/2010	Single Engine
N8708Y	Piper Twin Comanche	Multi Engine		2/17/2010	Multi Engine
N8753	Citabria	Single Engine		8/5/2016	Single Engine
N8774Z	C-206	Single Engine		8/22/2007	Single Engine
N87SC	BEECHCRAFT BARON B55	Multi Engine		8/22/2007	Helicopter
N882JP		Multi Engine		3/16/2017	Multi Engine
N8858C	SUPER CUB PA-18A-135	Single Engine		8/22/2007	Single Engine
N888N	CESSNA 340	Multi Engine		8/22/2007	Multi Engine
N888SC		Multi Engine		3/20/2017	Multi Engine
N88PP	Aircraft was seen during "Gibbs" hangar inspections. Bell 206B	Helicopter		2/16/2010	Helicopter
N88RF	PIPER SUPER CUB	Single Engine		8/22/2007	Single Engine
N8976Y	TWIN COMANCHE PA-39-250	Multi Engine		8/22/2007	Multi Engine
N8EY	C-210	Single Engine		6/2/2016	Single Engine
N8SK				9/28/2016	Single Engine
N900KK		Single Engine		3/20/2017	Single Engine
N90120	CESSNA 140	Single Engine		8/22/2007	Single Engine
N901JG	C-T182RG	Single Engine		8/22/2007	Single Engine
N901TG	Piper Warrior	Single Engine		2/17/2010	(Non 5010)
N9046F				9/28/2016	Single Engine
N9067K	STINSON 108	Single Engine		8/22/2007	Single Engine
N90AL		Helicopter		3/16/2017	Helicopter
N9117J		Single Engine		3/20/2017	Single Engine
N911G	Aircraft was seen during "Gibbs" hangar inspections. Beech Bonanza	Single Engine		2/17/2010	Single Engine
N913MS	PA-28	Single Engine		8/22/2007	Single Engine
N9141S	F33A	Single Engine		8/22/2007	Single Engine
N9146A	C-170	Single Engine		8/22/2007	Single Engine
N9155V	Mooney M20	Single Engine		2/18/2010	Single Engine

N91630	CADET	Single Engine	8/22/2007	Single Engine
N91712	C-172M	Single Engine	8/22/2007	Single Engine
	The owner of the aircraft is a full time resident of San Diego.			
N9200S	SIERRA B24R	Single Engine	8/22/2007	Single Engine
N9206N	PA-28-161 WARRIOR II	Single Engine	8/22/2007	Single Engine
N92628	Piper Cub	Single Engine	6/2/2016	Single Engine
N9277F	Piper Saratoga	Single Engine	2/17/2010	Single Engine
N928LA		Helicopter	3/16/2017	Helicopter
N9293X	CESSNA C-182E	Single Engine	8/22/2007	Single Engine
N936GW	C-172	Single Engine	8/22/2007	Single Engine
N9470G	CESSNA C-206	Single Engine	8/22/2007	Single Engine
N9488G	C-172	Single Engine	8/22/2007	Single Engine
N949B	BONANZA	Single Engine	8/22/2007	Single Engine
N9587M	Mooney M20	Single Engine	2/17/2010	Single Engine
N95952	C-172	Single Engine	8/22/2007	Single Engine
N95WH	Beechcraft Baron	Multi Engine	2/18/2010	Multi Engine
N9612V	Mooney M20	Single Engine	2/18/2010	Single Engine
N96144	Taylorcraft BC12-D		8/5/2016	Single Engine
N9648V	C-172N	Single Engine	8/22/2007	Single Engine
N965CT	DA20C1	Single Engine	8/22/2007	Single Engine
N96VE	Vari-eze	Single Engine	2/18/2010	Single Engine
N975MB	CESSNA C-T206H	Single Engine	8/22/2007	Single Engine
N97748	CESSNA C-182	Single Engine	8/22/2007	Single Engine
	The A/C is based at MYF, visually confirmed.			
N9777R	BEECHCRAFT BONANZA M35	Single Engine	8/22/2007	Single Engine
N977LR	MOONEY M20M		10/4/2007	Single Engine
N979T	Beechcraft Bonanza	Single Engine	2/18/2010	Single Engine
N98115	PIPER CUB J-3	Single Engine	8/22/2007	Single Engine
N9811X	Piper Cub	Single Engine	6/2/2016	Single Engine
N9842E	Cessna 172	Single Engine	2/18/2010	Single Engine
N98863		Single	8/5/2016	Single Engine

	J-3	Engine			
N9914U	GRUMMAN AA-5A	Single Engine	8/22/2007	Single Engine	
N997MA		Single Engine	3/20/2017	Single Engine	
N997SG	Piper Cherokee	Single Engine	2/18/2010	Single Engine	
N999NF		Multi Engine	3/16/2017	Multi Engine	
N9FN	PA-28R-201 ARROW III	Single Engine	8/22/2007	Single Engine	
N9UY		Glider	6/2/2016	Glider	

Appendix E

Traffic Flow Management System Counts (TFMSC)

TFMSC Report (MYF)

From 01/2016 To 12/2016 | Airport=MYF

#	Date	Flight Type	User Class	Physical Class	Aircraft	Departures	Arrivals	Total Operations	Departure Seats	Average Departure	Arrival Seats	Average Arrival
1	Jan-16	US to Foreign	General Aviation	Turbine	BE20 - Beech 200 Super King	1	0	1	5	5	0	0
2	Jan-16	US to Foreign	General Aviation	Turbine	TBM8 - Socata TBM-850	1	0	1	0	0	0	0
3	Jan-16	Domestic	?	-	-1 - unknown	0	1	1	0	0	0	0
4	Jan-16	Domestic	Air Carrier	-	-1 - unknown	0	2	2	0	0	0	0
5	Jan-16	Domestic	Air Carrier	Jet	C25B - Cessna Citation CJ3	0	1	1	0	0	5	5
6	Jan-16	Domestic	Air Carrier	Jet	C510 - Cessna Citation Mustang	1	1	2	6	6	6	6
7	Jan-16	Domestic	Air Carrier	Jet	C525 - Cessna CitationJet/CJ1	2	2	4	10	5	10	5
8	Jan-16	Domestic	Air Carrier	Jet	C56X - Cessna Excel/XLS	1	1	2	15	15	15	15
9	Jan-16	Domestic	Air Carrier	Jet	E50P - Embraer Phenom 100	2	2	4	12	6	12	6
10	Jan-16	Domestic	Air Carrier	Jet	EA50 - Eclipse 500	1	1	2	6	6	6	6
11	Jan-16	Domestic	Air Carrier	Piston	C206 - Cessna 206 Stationair	0	1	1	0	0	4	4
12	Jan-16	Domestic	Air Carrier	Turbine	BE10 - Beech King Air 100 A/B	3	3	6	12	4	12	4
13	Jan-16	Domestic	Air Carrier	Turbine	BE20 - Beech 200 Super King	24	27	51	120	5	135	5
14	Jan-16	Domestic	Air Carrier	Turbine	BE30 - Raytheon 300 Super King Air	1	1	2	8	8	8	8
15	Jan-16	Domestic	Air Carrier	Turbine	EC35 - Eurocopter EC-135	4	1	5	28	7	7	7
16	Jan-16	Domestic	Freight	Piston	BE99 - Beech Airliner 99	5	6	11	0	0	0	0
17	Jan-16	Domestic	General Aviation	-	-1 - unknown	5	2	7	0	0	0	0
18	Jan-16	Domestic	General Aviation	-	BT36 - unknown	0	1	1	0	0	0	0
19	Jan-16	Domestic	General Aviation	-	LJ75 - Learjet 75	0	1	1	0	0	0	0
20	Jan-16	Domestic	General Aviation	-	S22T - Cirrus SR-22 Turbo	1	0	1	0	0	0	0
21	Jan-16	Domestic	General Aviation	Jet	BE40 - Raytheon/Beech Beechjet 400/T-1	2	2	4	10	5	10	5
22	Jan-16	Domestic	General Aviation	Jet	C25A - Cessna Citation CJ2	3	3	6	24	8	24	8
23	Jan-16	Domestic	General Aviation	Jet	C25B - Cessna Citation CJ3	8	8	16	40	5	40	5
24	Jan-16	Domestic	General Aviation	Jet	C25C - Cessna Citation CJ4	6	6	12	0	0	0	0
25	Jan-16	Domestic	General Aviation	Jet	C501 - Cessna I/SP	6	5	11	36	6	30	6
26	Jan-16	Domestic	General Aviation	Jet	C510 - Cessna Citation Mustang	9	6	15	54	6	36	6
27	Jan-16	Domestic	General Aviation	Jet	C525 - Cessna CitationJet/CJ1	11	12	23	55	5	60	5
28	Jan-16	Domestic	General Aviation	Jet	C550 - Cessna Citation II/Bravo	13	10	23	130	10	100	10
29	Jan-16	Domestic	General Aviation	Jet	C551 - Cessna Citation II/SP	2	1	3	12	6	6	6
30	Jan-16	Domestic	General Aviation	Jet	C56X - Cessna Excel/XLS	2	2	4	30	15	30	15
31	Jan-16	Domestic	General Aviation	Jet	E50P - Embraer Phenom 100	3	3	6	18	6	18	6
32	Jan-16	Domestic	General Aviation	Jet	EA50 - Eclipse 500	23	19	42	0	0	0	0
33	Jan-16	Domestic	General Aviation	Jet	FA10 - Dassault Falcon/Mystère 10	2	1	3	8	4	4	4
34	Jan-16	Domestic	General Aviation	Jet	FA20 - Dassault Falcon/Mystère 20	0	1	1	0	0	10	10
35	Jan-16	Domestic	General Aviation	Jet	LJ35 - Bombardier Learjet 35/36	3	3	6	24	8	24	8
36	Jan-16	Domestic	General Aviation	Jet	PRM1 - Raytheon Premier 1/390 Premier 1	3	2	5	18	6	12	6
37	Jan-16	Domestic	General Aviation	Piston	AA5 - American AA-5 Traveler	0	1	1	0	0	3	3
38	Jan-16	Domestic	General Aviation	Piston	AC11 - North American Commander 112	0	1	1	0	0	4	4
39	Jan-16	Domestic	General Aviation	Piston	AC95 - Gulfstream Jetprop Commander 1000	2	1	3	12	6	6	6
40	Jan-16	Domestic	General Aviation	Piston	BE33 - Beech Bonanza 33	4	3	7	20	5	15	5
41	Jan-16	Domestic	General Aviation	Piston	BE35 - Beech Bonanza 35	8	6	14	32	4	24	4
42	Jan-16	Domestic	General Aviation	Piston	BE36 - Beech Bonanza 36	12	7	19	48	4	28	4
43	Jan-16	Domestic	General Aviation	Piston	BE55 - Beech Baron 55	4	3	7	24	6	18	6
44	Jan-16	Domestic	General Aviation	Piston	BE58 - Beech 58	9	11	20	36	4	44	4
45	Jan-16	Domestic	General Aviation	Piston	BE60 - Beech 60 Duke	3	2	5	18	6	12	6
46	Jan-16	Domestic	General Aviation	Piston	BE95 - Beech 95 Travel Air	1	1	2	4	4	4	4
47	Jan-16	Domestic	General Aviation	Piston	C172 - Cessna Skyhawk 172/Cutlass	57	54	111	228	4	216	4
48	Jan-16	Domestic	General Aviation	Piston	C177 - Cessna 177 Cardinal	1	0	1	4	4	0	0
49	Jan-16	Domestic	General Aviation	Piston	C180 - Cessna 180	2	3	5	8	4	12	4
50	Jan-16	Domestic	General Aviation	Piston	C182 - Cessna Skylane 182	17	12	29	68	4	48	4
51	Jan-16	Domestic	General Aviation	Piston	C205 - Cessna 205	1	1	2	6	6	6	6
52	Jan-16	Domestic	General Aviation	Piston	C206 - Cessna 206 Stationair	1	2	3	4	4	8	4
53	Jan-16	Domestic	General Aviation	Piston	C210 - Cessna 210 Centurion	5	3	8	30	6	18	6
54	Jan-16	Domestic	General Aviation	Piston	C310 - Cessna 310	2	0	2	12	6	0	0

TFMSC Report (MYF)

From 01/2016 To 12/2016 | Airport=MYF

#	Date	Flight Type	User Class	Physical Class	Aircraft	Departures	Arrivals	Total Operations	Departure Seats	Average Departure	Arrival Seats	Average Arrival
55	Jan-16	Domestic	General Aviation	Piston	C340 - Cessna 340	2	5	7	12	6	30	6
56	Jan-16	Domestic	General Aviation	Piston	C414 - Cessna Chancellor 414	5	6	11	30	6	36	6
57	Jan-16	Domestic	General Aviation	Piston	C421 - Cessna Golden Eagle 421	3	6	9	24	8	48	8
58	Jan-16	Domestic	General Aviation	Piston	C72R - Cessna Cutlass RG	2	3	5	8	4	12	4
59	Jan-16	Domestic	General Aviation	Piston	C82R - Cessna Skylane RG	7	8	15	28	4	32	4
60	Jan-16	Domestic	General Aviation	Piston	COL4 - Lancair LC-41 Columbia 400	4	4	8	16	4	16	4
61	Jan-16	Domestic	General Aviation	Piston	DA40 - Diamond Star DA40	6	4	10	36	6	24	6
62	Jan-16	Domestic	General Aviation	Piston	DA42 - Diamond Twin Star	0	2	2	0	0	0	0
63	Jan-16	Domestic	General Aviation	Piston	LNC2 - Lancair 360	1	1	2	4	4	4	4
64	Jan-16	Domestic	General Aviation	Piston	LNC4 - Lancair 4	1	1	2	4	4	4	4
65	Jan-16	Domestic	General Aviation	Piston	M20 - Mooney M-20C Ranger	1	0	1	4	4	0	0
66	Jan-16	Domestic	General Aviation	Piston	M20P - Mooney M-20C Ranger	10	8	18	40	4	32	4
67	Jan-16	Domestic	General Aviation	Piston	M20T - Turbo Mooney M20K	4	3	7	16	4	12	4
68	Jan-16	Domestic	General Aviation	Piston	MO20 - Mooney M-20	0	2	2	0	0	8	4
69	Jan-16	Domestic	General Aviation	Piston	P210 - Riley Super P210	3	2	5	18	6	12	6
70	Jan-16	Domestic	General Aviation	Piston	P28A - Piper Cherokee	22	18	40	88	4	72	4
71	Jan-16	Domestic	General Aviation	Piston	P28R - Cherokee Arrow/Turbo	3	1	4	12	4	4	4
72	Jan-16	Domestic	General Aviation	Piston	P32R - Piper 32	1	1	2	4	4	4	4
73	Jan-16	Domestic	General Aviation	Piston	PA24 - Piper PA-24	3	4	7	15	5	20	5
74	Jan-16	Domestic	General Aviation	Piston	PA27 - Piper Aztec	1	1	2	4	4	4	4
75	Jan-16	Domestic	General Aviation	Piston	PA28 - Piper Cherokee	1	6	7	28	28	168	28
76	Jan-16	Domestic	General Aviation	Piston	PA30 - Piper PA-30	0	1	1	0	0	6	6
77	Jan-16	Domestic	General Aviation	Piston	PA31 - Piper Navajo PA-31	1	1	2	8	8	8	8
78	Jan-16	Domestic	General Aviation	Piston	PA32 - Piper Cherokee Six	2	1	3	12	6	6	6
79	Jan-16	Domestic	General Aviation	Piston	PA34 - Piper PA-34 Seneca	1	1	2	6	6	6	6
80	Jan-16	Domestic	General Aviation	Piston	PA44 - Piper Seminole	12	11	23	48	4	44	4
81	Jan-16	Domestic	General Aviation	Piston	PA46 - Piper Malibu	9	8	17	54	6	48	6
82	Jan-16	Domestic	General Aviation	Piston	RV7 - Experimental RV-7	1	0	1	2	2	0	0
83	Jan-16	Domestic	General Aviation	Piston	RV9 - Experimental	0	1	1	0	0	2	2
84	Jan-16	Domestic	General Aviation	Piston	SR20 - Cirrus SR-20	8	10	18	32	4	40	4
85	Jan-16	Domestic	General Aviation	Piston	SR22 - Cirrus SR 22	33	28	61	132	4	112	4
86	Jan-16	Domestic	General Aviation	Piston	TB20 - Taylorcraft Seabird	1	0	1	4	4	0	0
87	Jan-16	Domestic	General Aviation	Turbine	AC80 - Aero Commander Turbo 680	2	3	5	8	4	12	4
88	Jan-16	Domestic	General Aviation	Turbine	B190 - Beech 1900/C-12J	49	52	101	931	19	988	19
89	Jan-16	Domestic	General Aviation	Turbine	B350 - Beech Super King Air 350	5	3	8	30	6	18	6
90	Jan-16	Domestic	General Aviation	Turbine	BE20 - Beech 200 Super King	27	31	58	135	5	155	5
91	Jan-16	Domestic	General Aviation	Turbine	BE30 - Raytheon 300 Super King Air	0	1	1	0	0	8	8
92	Jan-16	Domestic	General Aviation	Turbine	BE9L - Beech King Air 90	4	2	6	24	6	12	6
93	Jan-16	Domestic	General Aviation	Turbine	BE9T - Beech F90 King Air	2	1	3	8	4	4	4
94	Jan-16	Domestic	General Aviation	Turbine	C425 - Cessna 425 Corsair	2	2	4	8	4	8	4
95	Jan-16	Domestic	General Aviation	Turbine	C441 - Cessna Conquest	5	5	10	30	6	30	6
96	Jan-16	Domestic	General Aviation	Turbine	EC35 - Eurocopter EC-135	1	0	1	7	7	0	0
97	Jan-16	Domestic	General Aviation	Turbine	MU2 - Mitsubishi Marquise/Solitaire	1	0	1	6	6	0	0
98	Jan-16	Domestic	General Aviation	Turbine	P46T - Piper Malibu Meridian	6	4	10	36	6	24	6
99	Jan-16	Domestic	General Aviation	Turbine	PC12 - Pilatus PC-12	9	12	21	81	9	108	9
100	Jan-16	Domestic	General Aviation	Turbine	TBM7 - Socata TBM-7	4	4	8	16	4	16	4
101	Jan-16	Domestic	General Aviation	Turbine	TBM8 - Socata TBM-850	2	4	6	0	0	0	0
102	Jan-16	Domestic	Military	-	H60 - Sikorsky SH-60 Seahawk	0	2	2	0	0	8	4
103	Jan-16	Domestic	Military	Piston	C180 - Cessna 180	1	0	1	4	4	0	0
104	Jan-16	Domestic	Military	Piston	P28A - Piper Cherokee	6	5	11	24	4	20	4
105	Jan-16	Domestic	Military	Turbine	B350 - Beech Super King Air 350	3	3	6	18	6	18	6
106	Jan-16	Domestic	Military	Turbine	BE20 - Beech 200 Super King	3	9	12	15	5	45	5
107	Jan-16	Domestic	Military	Turbine	BE30 - Raytheon 300 Super King Air	1	3	4	8	8	24	8
108	Jan-16	Domestic	Military	Turbine	EC35 - Eurocopter EC-135	2	1	3	14	7	7	7

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#	Date	Flight Type	User Class	Physical Class	Aircraft	Departures	Arrivals	Total Operations	Departure Seats	Average Departure	Arrival Seats	Average Arrival
109	Jan-16	Domestic	Military	Turbine	EC45 - Eurocopter EC-145	0	1	1	0	0	10	10
110	Jan-16	Domestic	Other	-	-1 - unknown	0	1	1	0	0	0	0
111	Jan-16	Domestic	Other	Jet	C25A - Cessna Citation CJ2	1	1	2	8	8	8	8
112	Jan-16	Domestic	Other	Jet	C525 - Cessna CitationJet/CJ1	2	1	3	10	5	5	5
113	Jan-16	Domestic	Other	Jet	C560 - Cessna Citation V/Ultra/Encore	1	1	2	8	8	8	8
114	Jan-16	Domestic	Other	Jet	LJ35 - Bombardier Learjet 35/36	2	2	4	16	8	16	8
115	Jan-16	Domestic	Other	Piston	-1 - unknown	0	5	5	0	0	0	0
116	Jan-16	Domestic	Other	Piston	C421 - Cessna Golden Eagle 421	25	21	46	200	8	168	8
117	Jan-16	Domestic	Other	Turbine	BE9L - Beech King Air 90	1	3	4	6	6	18	6
118	Jan-16	Domestic	Other	Turbine	C425 - Cessna 425 Corsair	1	1	2	4	4	4	4
119	Jan-16	Domestic	Other	Turbine	EC35 - Eurocopter EC-135	0	1	1	0	0	7	7
120	Jan-16	Domestic	Air Taxi	Jet	C560 - Cessna Citation V/Ultra/Encore	1	1	2	8	8	8	8
121	Jan-16	Domestic	Air Taxi	Jet	C56X - Cessna Excel/XLS	1	1	2	15	15	15	15
122	Feb-16	Foreign to US	General Aviation	Turbine	PC12 - Pilatus PC-12	0	1	1	0	0	9	9
123	Feb-16	US to Foreign	General Aviation	Jet	C25A - Cessna Citation CJ2	1	0	1	8	8	0	0
124	Feb-16	US to Foreign	General Aviation	Jet	C25B - Cessna Citation CJ3	1	0	1	5	5	0	0
125	Feb-16	US to Foreign	General Aviation	Piston	C206 - Cessna 206 Stationair	1	0	1	4	4	0	0
126	Feb-16	US to Foreign	General Aviation	Piston	C310 - Cessna 310	1	0	1	6	6	0	0
127	Feb-16	US to Foreign	General Aviation	Turbine	C441 - Cessna Conquest	1	0	1	6	6	0	0
128	Feb-16	US to Foreign	Military	Piston	C210 - Cessna 210 Centurion	1	0	1	6	6	0	0
129	Feb-16	US to Foreign	Military	Piston	PA28 - Piper Cherokee	1	0	1	28	28	0	0
130	Feb-16	US to Foreign	Other	-	S76 - Sikorsky S-76	1	0	1	12	12	0	0
131	Feb-16	US to Foreign	Other	Jet	C25B - Cessna Citation CJ3	1	0	1	5	5	0	0
132	Feb-16	Domestic	Air Carrier	-	-1 - unknown	1	0	1	0	0	0	0
133	Feb-16	Domestic	Air Carrier	Jet	C510 - Cessna Citation Mustang	3	2	5	18	6	12	6
134	Feb-16	Domestic	Air Carrier	Jet	C560 - Cessna Citation V/Ultra/Encore	0	1	1	0	0	8	8
135	Feb-16	Domestic	Air Carrier	Jet	E50P - Embraer Phenom 100	3	3	6	18	6	18	6
136	Feb-16	Domestic	Air Carrier	Piston	C172 - Cessna Skyhawk 172/Cutlass	1	0	1	4	4	0	0
137	Feb-16	Domestic	Air Carrier	Piston	C340 - Cessna 340	1	0	1	6	6	0	0
138	Feb-16	Domestic	Air Carrier	Turbine	B350 - Beech Super King Air 350	4	4	8	24	6	24	6
139	Feb-16	Domestic	Air Carrier	Turbine	BE10 - Beech King Air 100 A/B	1	1	2	4	4	4	4
140	Feb-16	Domestic	Air Carrier	Turbine	BE20 - Beech 200 Super King	17	19	36	85	5	95	5
141	Feb-16	Domestic	Air Carrier	Turbine	EC35 - Eurocopter EC-135	1	7	8	7	7	49	7
142	Feb-16	Domestic	Freight	Piston	BE99 - Beech Airliner 99	4	3	7	0	0	0	0
143	Feb-16	Domestic	General Aviation	-	-1 - unknown	0	2	2	0	0	0	0
144	Feb-16	Domestic	General Aviation	-	LJ75 - Learjet 75	1	0	1	0	0	0	0
145	Feb-16	Domestic	General Aviation	Jet	BE40 - Raytheon/Beech Beechjet 400/T-1	2	2	4	10	5	10	5
146	Feb-16	Domestic	General Aviation	Jet	C25A - Cessna Citation CJ2	4	5	9	32	8	40	8
147	Feb-16	Domestic	General Aviation	Jet	C25B - Cessna Citation CJ3	7	8	15	35	5	40	5
148	Feb-16	Domestic	General Aviation	Jet	C25C - Cessna Citation CJ4	7	7	14	0	0	0	0
149	Feb-16	Domestic	General Aviation	Jet	C500 - Cessna 500/Citation I	2	3	5	12	6	18	6
150	Feb-16	Domestic	General Aviation	Jet	C501 - Cessna I/SP	3	4	7	18	6	24	6
151	Feb-16	Domestic	General Aviation	Jet	C510 - Cessna Citation Mustang	8	9	17	48	6	54	6
152	Feb-16	Domestic	General Aviation	Jet	C525 - Cessna CitationJet/CJ1	12	11	23	60	5	55	5
153	Feb-16	Domestic	General Aviation	Jet	C550 - Cessna Citation II/Bravo	10	10	20	100	10	100	10
154	Feb-16	Domestic	General Aviation	Jet	C560 - Cessna Citation V/Ultra/Encore	3	3	6	24	8	24	8
155	Feb-16	Domestic	General Aviation	Jet	C56X - Cessna Excel/XLS	6	6	12	90	15	90	15
156	Feb-16	Domestic	General Aviation	Jet	EA50 - Eclipse 500	18	21	39	0	0	0	0
157	Feb-16	Domestic	General Aviation	Jet	F900 - Dassault Falcon 900	1	1	2	15	15	15	15
158	Feb-16	Domestic	General Aviation	Jet	FA10 - Dassault Falcon/Mystère 10	3	2	5	12	4	8	4
159	Feb-16	Domestic	General Aviation	Jet	LJ35 - Bombardier Learjet 35/36	3	4	7	24	8	32	8
160	Feb-16	Domestic	General Aviation	Jet	PRM1 - Raytheon Premier 1/390 Premier 1	4	4	8	24	6	24	6
161	Feb-16	Domestic	General Aviation	Piston	AA5 - American AA-5 Traveler	3	2	5	9	3	6	3
162	Feb-16	Domestic	General Aviation	Piston	AC11 - North American Commander 112	1	1	2	4	4	4	4

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#	Date	Flight Type	User Class	Physical Class	Aircraft	Departures	Arrivals	Total Operations	Departure Seats	Average Departure	Arrival Seats	Average Arrival
163	Feb-16	Domestic	General Aviation	Piston	AC50 - Aero Commander 500	1	1	2	4	4	4	4
164	Feb-16	Domestic	General Aviation	Piston	AC95 - Gulfstream Jetprop Commander 1000	1	1	2	6	6	6	6
165	Feb-16	Domestic	General Aviation	Piston	BE33 - Beech Bonanza 33	5	5	10	25	5	25	5
166	Feb-16	Domestic	General Aviation	Piston	BE35 - Beech Bonanza 35	3	3	6	12	4	12	4
167	Feb-16	Domestic	General Aviation	Piston	BE36 - Beech Bonanza 36	8	10	18	32	4	40	4
168	Feb-16	Domestic	General Aviation	Piston	BE55 - Beech Baron 55	3	3	6	18	6	18	6
169	Feb-16	Domestic	General Aviation	Piston	BE58 - Beech 58	7	4	11	28	4	16	4
170	Feb-16	Domestic	General Aviation	Piston	BE60 - Beech 60 Duke	2	2	4	12	6	12	6
171	Feb-16	Domestic	General Aviation	Piston	BE76 - Beech 76 Duchess	1	1	2	4	4	4	4
172	Feb-16	Domestic	General Aviation	Piston	BE95 - Beech 95 Travel Air	3	3	6	12	4	12	4
173	Feb-16	Domestic	General Aviation	Piston	C172 - Cessna Skyhawk 172/Cutlass	38	32	70	152	4	128	4
174	Feb-16	Domestic	General Aviation	Piston	C180 - Cessna 180	2	1	3	8	4	4	4
175	Feb-16	Domestic	General Aviation	Piston	C182 - Cessna Skylane 182	18	13	31	72	4	52	4
176	Feb-16	Domestic	General Aviation	Piston	C185 - Cessna Skywagon 185	0	1	1	0	0	6	6
177	Feb-16	Domestic	General Aviation	Piston	C206 - Cessna 206 Stationair	2	1	3	8	4	4	4
178	Feb-16	Domestic	General Aviation	Piston	C210 - Cessna 210 Centurion	8	10	18	48	6	60	6
179	Feb-16	Domestic	General Aviation	Piston	C310 - Cessna 310	1	2	3	6	6	12	6
180	Feb-16	Domestic	General Aviation	Piston	C340 - Cessna 340	5	5	10	30	6	30	6
181	Feb-16	Domestic	General Aviation	Piston	C414 - Cessna Chancellor 414	3	3	6	18	6	18	6
182	Feb-16	Domestic	General Aviation	Piston	C421 - Cessna Golden Eagle 421	2	0	2	16	8	0	0
183	Feb-16	Domestic	General Aviation	Piston	C82 - Fairchild F-78 Packet	1	0	1	0	0	0	0
184	Feb-16	Domestic	General Aviation	Piston	C82R - Cessna Skylane RG	7	7	14	28	4	28	4
185	Feb-16	Domestic	General Aviation	Piston	COL4 - Lancair LC-41 Columbia 400	9	6	15	36	4	24	4
186	Feb-16	Domestic	General Aviation	Piston	CRUZ - CRUZ FELIX SKYBOLT	1	0	1	0	0	0	0
187	Feb-16	Domestic	General Aviation	Piston	DA40 - Diamond Star DA40	5	4	9	30	6	24	6
188	Feb-16	Domestic	General Aviation	Piston	DA42 - Diamond Twin Star	1	1	2	0	0	0	0
189	Feb-16	Domestic	General Aviation	Piston	M20P - Mooney M-20C Ranger	8	2	10	32	4	8	4
190	Feb-16	Domestic	General Aviation	Piston	M20T - Turbo Mooney M20K	5	4	9	20	4	16	4
191	Feb-16	Domestic	General Aviation	Piston	P210 - Riley Super P210	3	3	6	18	6	18	6
192	Feb-16	Domestic	General Aviation	Piston	P28A - Piper Cherokee	17	9	26	68	4	36	4
193	Feb-16	Domestic	General Aviation	Piston	P28B - Piper Turbo Dakota	2	1	3	8	4	4	4
194	Feb-16	Domestic	General Aviation	Piston	P28R - Cherokee Arrow/Turbo	1	1	2	4	4	4	4
195	Feb-16	Domestic	General Aviation	Piston	PA24 - Piper PA-24	4	2	6	20	5	10	5
196	Feb-16	Domestic	General Aviation	Piston	PA28 - Piper Cherokee	4	5	9	112	28	140	28
197	Feb-16	Domestic	General Aviation	Piston	PA31 - Piper Navajo PA-31	1	1	2	8	8	8	8
198	Feb-16	Domestic	General Aviation	Piston	PA32 - Piper Cherokee Six	3	2	5	18	6	12	6
199	Feb-16	Domestic	General Aviation	Piston	PA34 - Piper PA-34 Seneca	1	1	2	6	6	6	6
200	Feb-16	Domestic	General Aviation	Piston	PA44 - Piper Seminole	8	7	15	32	4	28	4
201	Feb-16	Domestic	General Aviation	Piston	PA46 - Piper Malibu	13	11	24	78	6	66	6
202	Feb-16	Domestic	General Aviation	Piston	RV10 - Experimental	2	2	4	0	0	0	0
203	Feb-16	Domestic	General Aviation	Piston	RV7 - Experimental RV-7	0	2	2	0	0	4	2
204	Feb-16	Domestic	General Aviation	Piston	RV8 - RV-4/6/7/8; VANS	1	0	1	2	2	0	0
205	Feb-16	Domestic	General Aviation	Piston	SR20 - Cirrus SR-20	11	6	17	44	4	24	4
206	Feb-16	Domestic	General Aviation	Piston	SR22 - Cirrus SR 22	32	29	61	128	4	116	4
207	Feb-16	Domestic	General Aviation	Turbine	AC90 - Gulfstream Commander	0	1	1	0	0	4	4
208	Feb-16	Domestic	General Aviation	Turbine	B190 - Beech 1900/C-12J	46	46	92	874	19	874	19
209	Feb-16	Domestic	General Aviation	Turbine	B350 - Beech Super King Air 350	6	4	10	36	6	24	6
210	Feb-16	Domestic	General Aviation	Turbine	BE20 - Beech 200 Super King	31	32	63	155	5	160	5
211	Feb-16	Domestic	General Aviation	Turbine	BE9L - Beech King Air 90	12	10	22	72	6	60	6
212	Feb-16	Domestic	General Aviation	Turbine	BE9T - Beech F90 King Air	3	3	6	12	4	12	4
213	Feb-16	Domestic	General Aviation	Turbine	C10T - Cessna P210 (Turbo)	1	1	2	4	4	4	4
214	Feb-16	Domestic	General Aviation	Turbine	C425 - Cessna 425 Corsair	3	3	6	12	4	12	4
215	Feb-16	Domestic	General Aviation	Turbine	C441 - Cessna Conquest	4	4	8	24	6	24	6
216	Feb-16	Domestic	General Aviation	Turbine	P46T - Piper Malibu Meridian	4	5	9	24	6	30	6

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217	Feb-16	Domestic	General Aviation	Turbine	PAY2 - Piper Cheyenne 2	2	0	2	12	6	0	0
218	Feb-16	Domestic	General Aviation	Turbine	PC12 - Pilatus PC-12	7	8	15	63	9	72	9
219	Feb-16	Domestic	General Aviation	Turbine	TBM7 - Socata TBM-7	16	14	30	64	4	56	4
220	Feb-16	Domestic	General Aviation	Turbine	TBM8 - Socata TBM-850	3	3	6	0	0	0	0
221	Feb-16	Domestic	Military	-	-1 - unknown	0	1	1	0	0	0	0
222	Feb-16	Domestic	Military	-	H60 - Sikorsky SH-60 Seahawk	0	1	1	0	0	4	4
223	Feb-16	Domestic	Military	Piston	C172 - Cessna Skyhawk 172/Cutlass	1	0	1	4	4	0	0
224	Feb-16	Domestic	Military	Piston	C310 - Cessna 310	0	1	1	0	0	6	6
225	Feb-16	Domestic	Military	Piston	P28A - Piper Cherokee	1	1	2	4	4	4	4
226	Feb-16	Domestic	Military	Piston	PA44 - Piper Seminole	1	1	2	4	4	4	4
227	Feb-16	Domestic	Military	Turbine	B350 - Beech Super King Air 350	1	1	2	6	6	6	6
228	Feb-16	Domestic	Military	Turbine	BE20 - Beech 200 Super King	1	2	3	5	5	10	5
229	Feb-16	Domestic	Military	Turbine	BE30 - Raytheon 300 Super King Air	2	2	4	16	8	16	8
230	Feb-16	Domestic	Other	-	-1 - unknown	0	1	1	0	0	0	0
231	Feb-16	Domestic	Other	Jet	ASTR - IAI Astra 1125	1	1	2	6	6	6	6
232	Feb-16	Domestic	Other	Jet	C25B - Cessna Citation CJ3	0	1	1	0	0	5	5
233	Feb-16	Domestic	Other	Jet	C525 - Cessna CitationJet/CJ1	1	1	2	5	5	5	5
234	Feb-16	Domestic	Other	Jet	C560 - Cessna Citation V/Ultra/Encore	1	1	2	8	8	8	8
235	Feb-16	Domestic	Other	Jet	LJ35 - Bombardier Learjet 35/36	3	2	5	24	8	16	8
236	Feb-16	Domestic	Other	Piston	-1 - unknown	0	6	6	0	0	0	0
237	Feb-16	Domestic	Other	Piston	C421 - Cessna Golden Eagle 421	5	8	13	40	8	64	8
238	Feb-16	Domestic	Other	Piston	SR22 - Cirrus SR 22	1	1	2	4	4	4	4
239	Feb-16	Domestic	Other	Turbine	BE9L - Beech King Air 90	0	3	3	0	0	18	6
240	Feb-16	Domestic	Other	Turbine	PAY2 - Piper Cheyenne 2	0	2	2	0	0	12	6
241	Feb-16	Domestic	Other	Turbine	PC12 - Pilatus PC-12	1	2	3	9	9	18	9
242	Mar-16	US to Foreign	General Aviation	Piston	C206 - Cessna 206 Stationair	1	0	1	4	4	0	0
243	Mar-16	US to Foreign	General Aviation	Piston	PA32 - Piper Cherokee Six	1	0	1	6	6	0	0
244	Mar-16	US to Foreign	General Aviation	Turbine	BE20 - Beech 200 Super King	1	0	1	5	5	0	0
245	Mar-16	US to Foreign	General Aviation	Turbine	P180 - Piaggio P-180 Avanti	1	0	1	9	9	0	0
246	Mar-16	US to Foreign	General Aviation	Turbine	P46T - Piper Malibu Meridian	1	0	1	6	6	0	0
247	Mar-16	US to Foreign	General Aviation	Turbine	PAY2 - Piper Cheyenne 2	1	0	1	6	6	0	0
248	Mar-16	US to Foreign	Other	Jet	C501 - Cessna I/SP	1	0	1	6	6	0	0
249	Mar-16	Domestic	?	-	-1 - unknown	0	1	1	0	0	0	0
250	Mar-16	Domestic	Air Carrier	-	-1 - unknown	0	2	2	0	0	0	0
251	Mar-16	Domestic	Air Carrier	Jet	C550 - Cessna Citation II/Bravo	1	1	2	10	10	10	10
252	Mar-16	Domestic	Air Carrier	Jet	C560 - Cessna Citation V/Ultra/Encore	1	0	1	8	8	0	0
253	Mar-16	Domestic	Air Carrier	Jet	C56X - Cessna Excel/XLS	1	1	2	15	15	15	15
254	Mar-16	Domestic	Air Carrier	Piston	C182 - Cessna Skylane 182	1	1	2	4	4	4	4
255	Mar-16	Domestic	Air Carrier	Turbine	B350 - Beech Super King Air 350	4	5	9	24	6	30	6
256	Mar-16	Domestic	Air Carrier	Turbine	BE10 - Beech King Air 100 A/B	1	1	2	4	4	4	4
257	Mar-16	Domestic	Air Carrier	Turbine	BE20 - Beech 200 Super King	19	18	37	95	5	90	5
258	Mar-16	Domestic	Air Carrier	Turbine	BE30 - Raytheon 300 Super King Air	3	1	4	24	8	8	8
259	Mar-16	Domestic	Air Carrier	Turbine	EC35 - Eurocopter EC-135	4	6	10	28	7	42	7
260	Mar-16	Domestic	Air Carrier	Turbine	PC12 - Pilatus PC-12	1	0	1	9	9	0	0
261	Mar-16	Domestic	Freight	Piston	BE99 - Beech Airliner 99	4	4	8	0	0	0	0
262	Mar-16	Domestic	General Aviation	-	-1 - unknown	3	2	5	0	0	0	0
263	Mar-16	Domestic	General Aviation	-	AS32 - Aérospatiale AS-332 Super Puma	1	0	1	21	21	0	0
264	Mar-16	Domestic	General Aviation	-	M2OP - Mooney M-20C Ranger	1	0	1	4	4	0	0
265	Mar-16	Domestic	General Aviation	-	R44 - Robinson R-44 Raven	1	1	2	4	4	4	4
266	Mar-16	Domestic	General Aviation	-	S22T - Cirrus SR-22 Turbo	2	2	4	0	0	0	0
267	Mar-16	Domestic	General Aviation	-	T206 - Cessna T-206	0	1	1	0	0	6	6
268	Mar-16	Domestic	General Aviation	Jet	C25A - Cessna Citation CJ2	5	6	11	40	8	48	8
269	Mar-16	Domestic	General Aviation	Jet	C25B - Cessna Citation CJ3	8	9	17	40	5	45	5
270	Mar-16	Domestic	General Aviation	Jet	C25C - Cessna Citation CJ4	8	8	16	0	0	0	0

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271	Mar-16	Domestic	General Aviation	Jet	C500 - Cessna 500/Citation I	2	2	4	12	6	12	6
272	Mar-16	Domestic	General Aviation	Jet	C501 - Cessna I/SP	6	4	10	36	6	24	6
273	Mar-16	Domestic	General Aviation	Jet	C510 - Cessna Citation Mustang	9	9	18	54	6	54	6
274	Mar-16	Domestic	General Aviation	Jet	C525 - Cessna CitationJet/CJ1	13	14	27	65	5	70	5
275	Mar-16	Domestic	General Aviation	Jet	C550 - Cessna Citation II/Bravo	7	7	14	70	10	70	10
276	Mar-16	Domestic	General Aviation	Jet	C56X - Cessna Excel/XLS	1	1	2	15	15	15	15
277	Mar-16	Domestic	General Aviation	Jet	DA20 - Diamond DA 20	1	0	1	2	2	0	0
278	Mar-16	Domestic	General Aviation	Jet	E50P - Embraer Phenom 100	2	2	4	12	6	12	6
279	Mar-16	Domestic	General Aviation	Jet	EA50 - Eclipse 500	20	22	42	0	0	0	0
280	Mar-16	Domestic	General Aviation	Jet	FA10 - Dassault Falcon/Mystère 10	1	1	2	4	4	4	4
281	Mar-16	Domestic	General Aviation	Jet	LJ35 - Bombardier Learjet 35/36	5	12	17	40	8	96	8
282	Mar-16	Domestic	General Aviation	Jet	LJ45 - Bombardier Learjet 45	2	2	4	20	10	20	10
283	Mar-16	Domestic	General Aviation	Jet	PRM1 - Raytheon Premier 1/390 Premier 1	2	2	4	12	6	12	6
284	Mar-16	Domestic	General Aviation	Piston	AA5 - American AA-5 Traveler	5	5	10	15	3	15	3
285	Mar-16	Domestic	General Aviation	Piston	AC11 - North American Commander 112	1	0	1	4	4	0	0
286	Mar-16	Domestic	General Aviation	Piston	BE33 - Beech Bonanza 33	5	4	9	25	5	20	5
287	Mar-16	Domestic	General Aviation	Piston	BE35 - Beech Bonanza 35	8	7	15	32	4	28	4
288	Mar-16	Domestic	General Aviation	Piston	BE36 - Beech Bonanza 36	18	17	35	72	4	68	4
289	Mar-16	Domestic	General Aviation	Piston	BE55 - Beech Baron 55	3	7	10	18	6	42	6
290	Mar-16	Domestic	General Aviation	Piston	BE58 - Beech 58	11	10	21	44	4	40	4
291	Mar-16	Domestic	General Aviation	Piston	BE60 - Beech 60 Duke	2	2	4	12	6	12	6
292	Mar-16	Domestic	General Aviation	Piston	BE76 - Beech 76 Duchess	0	1	1	0	0	4	4
293	Mar-16	Domestic	General Aviation	Piston	BE95 - Beech 95 Travel Air	1	0	1	4	4	0	0
294	Mar-16	Domestic	General Aviation	Piston	BKUT - Berkut	1	1	2	2	2	2	2
295	Mar-16	Domestic	General Aviation	Piston	C172 - Cessna Skyhawk 172/Cutlass	41	44	85	164	4	176	4
296	Mar-16	Domestic	General Aviation	Piston	C180 - Cessna 180	1	2	3	4	4	8	4
297	Mar-16	Domestic	General Aviation	Piston	C182 - Cessna Skylane 182	19	17	36	76	4	68	4
298	Mar-16	Domestic	General Aviation	Piston	C185 - Cessna Skywagon 185	1	1	2	6	6	6	6
299	Mar-16	Domestic	General Aviation	Piston	C206 - Cessna 206 Stationair	0	1	1	0	0	4	4
300	Mar-16	Domestic	General Aviation	Piston	C210 - Cessna 210 Centurion	8	9	17	48	6	54	6
301	Mar-16	Domestic	General Aviation	Piston	C310 - Cessna 310	2	2	4	12	6	12	6
302	Mar-16	Domestic	General Aviation	Piston	C340 - Cessna 340	4	2	6	24	6	12	6
303	Mar-16	Domestic	General Aviation	Piston	C414 - Cessna Chancellor 414	4	4	8	24	6	24	6
304	Mar-16	Domestic	General Aviation	Piston	C421 - Cessna Golden Eagle 421	9	9	18	72	8	72	8
305	Mar-16	Domestic	General Aviation	Piston	C72R - Cessna Cutlass RG	1	0	1	4	4	0	0
306	Mar-16	Domestic	General Aviation	Piston	C82R - Cessna Skylane RG	3	1	4	12	4	4	4
307	Mar-16	Domestic	General Aviation	Piston	CH7B - Bellanca 7GCBC Citabria	0	1	1	0	0	4	4
308	Mar-16	Domestic	General Aviation	Piston	COL3 - Lancair LC-40 Columbia 400	1	0	1	4	4	0	0
309	Mar-16	Domestic	General Aviation	Piston	COL4 - Lancair LC-41 Columbia 400	3	5	8	12	4	20	4
310	Mar-16	Domestic	General Aviation	Piston	DA40 - Diamond Star DA40	6	4	10	36	6	24	6
311	Mar-16	Domestic	General Aviation	Piston	DA42 - Diamond Twin Star	2	1	3	0	0	0	0
312	Mar-16	Domestic	General Aviation	Piston	M20P - Mooney M-20C Ranger	10	11	21	40	4	44	4
313	Mar-16	Domestic	General Aviation	Piston	M20T - Turbo Mooney M20K	6	2	8	24	4	8	4
314	Mar-16	Domestic	General Aviation	Piston	MO20 - Mooney M-20	1	1	2	4	4	4	4
315	Mar-16	Domestic	General Aviation	Piston	P210 - Riley Super P210	2	4	6	12	6	24	6
316	Mar-16	Domestic	General Aviation	Piston	P28A - Piper Cherokee	15	12	27	60	4	48	4
317	Mar-16	Domestic	General Aviation	Piston	P32R - Piper 32	1	0	1	4	4	0	0
318	Mar-16	Domestic	General Aviation	Piston	PA24 - Piper PA-24	1	1	2	5	5	5	5
319	Mar-16	Domestic	General Aviation	Piston	PA28 - Piper Cherokee	2	2	4	56	28	56	28
320	Mar-16	Domestic	General Aviation	Piston	PA32 - Piper Cherokee Six	7	3	10	42	6	18	6
321	Mar-16	Domestic	General Aviation	Piston	PA44 - Piper Seminole	8	8	16	32	4	32	4
322	Mar-16	Domestic	General Aviation	Piston	PA46 - Piper Malibu	8	8	16	48	6	48	6
323	Mar-16	Domestic	General Aviation	Piston	RV10 - Experimental	1	1	2	0	0	0	0
324	Mar-16	Domestic	General Aviation	Piston	RV7 - Experimental RV-7	0	1	1	0	0	2	2

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#	Date	Flight Type	User Class	Physical Class	Aircraft	Departures	Arrivals	Total Operations	Departure Seats	Average Departure	Arrival Seats	Average Arrival
325	Mar-16	Domestic	General Aviation	Piston	SR20 - Cirrus SR-20	7	6	13	28	4	24	4
326	Mar-16	Domestic	General Aviation	Piston	SR22 - Cirrus SR 22	53	48	101	212	4	192	4
327	Mar-16	Domestic	General Aviation	Turbine	AC80 - Aero Commander Turbo 680	1	1	2	4	4	4	4
328	Mar-16	Domestic	General Aviation	Turbine	B190 - Beech 1900/C-12J	64	65	129	1,216	19	1,235	19
329	Mar-16	Domestic	General Aviation	Turbine	B350 - Beech Super King Air 350	2	2	4	12	6	12	6
330	Mar-16	Domestic	General Aviation	Turbine	BE20 - Beech 200 Super King	17	22	39	85	5	110	5
331	Mar-16	Domestic	General Aviation	Turbine	BE9L - Beech King Air 90	22	18	40	132	6	108	6
332	Mar-16	Domestic	General Aviation	Turbine	BE9T - Beech F90 King Air	2	3	5	8	4	12	4
333	Mar-16	Domestic	General Aviation	Turbine	C425 - Cessna 425 Corsair	1	1	2	4	4	4	4
334	Mar-16	Domestic	General Aviation	Turbine	C441 - Cessna Conquest	7	8	15	42	6	48	6
335	Mar-16	Domestic	General Aviation	Turbine	EC35 - Eurocopter EC-135	1	0	1	7	7	0	0
336	Mar-16	Domestic	General Aviation	Turbine	EPIC - Dynasty	2	2	4	0	0	0	0
337	Mar-16	Domestic	General Aviation	Turbine	P180 - Piaggio P-180 Avanti	1	2	3	9	9	18	9
338	Mar-16	Domestic	General Aviation	Turbine	P46T - Piper Malibu Meridian	6	8	14	36	6	48	6
339	Mar-16	Domestic	General Aviation	Turbine	PAY2 - Piper Cheyenne 2	0	2	2	0	0	12	6
340	Mar-16	Domestic	General Aviation	Turbine	PC12 - Pilatus PC-12	23	22	45	207	9	198	9
341	Mar-16	Domestic	General Aviation	Turbine	TBM7 - Socata TBM-7	10	11	21	40	4	44	4
342	Mar-16	Domestic	General Aviation	Turbine	TBM8 - Socata TBM-850	9	9	18	0	0	0	0
343	Mar-16	Domestic	Military	-	-1 - unknown	0	1	1	0	0	0	0
344	Mar-16	Domestic	Military	-	H60 - Sikorsky SH-60 Seahawk	1	2	3	4	4	8	4
345	Mar-16	Domestic	Military	-	HELO - Helicoper	0	1	1	0	0	4	4
346	Mar-16	Domestic	Military	Piston	C172 - Cessna Skyhawk 172/Cutlass	2	0	2	8	4	0	0
347	Mar-16	Domestic	Military	Piston	P28A - Piper Cherokee	1	0	1	4	4	0	0
348	Mar-16	Domestic	Military	Piston	SR22 - Cirrus SR 22	2	0	2	8	4	0	0
349	Mar-16	Domestic	Military	Piston	T34 - Beech T 34	0	1	1	0	0	2	2
350	Mar-16	Domestic	Military	Turbine	BE20 - Beech 200 Super King	3	1	4	15	5	5	5
351	Mar-16	Domestic	Military	Turbine	BE30 - Raytheon 300 Super King Air	1	0	1	8	8	0	0
352	Mar-16	Domestic	Military	Turbine	EC35 - Eurocopter EC-135	1	0	1	7	7	0	0
353	Mar-16	Domestic	Military	Turbine	EC45 - Eurocopter EC-145	3	3	6	30	10	30	10
354	Mar-16	Domestic	Other	Jet	C525 - Cessna CitationJet/CJ1	1	0	1	5	5	0	0
355	Mar-16	Domestic	Other	Jet	LJ35 - Bombardier Learjet 35/36	5	0	5	40	8	0	0
356	Mar-16	Domestic	Other	Piston	-1 - unknown	0	3	3	0	0	0	0
357	Mar-16	Domestic	Other	Piston	C206 - Cessna 206 Stationair	0	1	1	0	0	4	4
358	Mar-16	Domestic	Other	Piston	C421 - Cessna Golden Eagle 421	11	7	18	88	8	56	8
359	Mar-16	Domestic	Other	Piston	PA44 - Piper Seminole	0	1	1	0	0	4	4
360	Mar-16	Domestic	Other	Piston	SR22 - Cirrus SR 22	1	1	2	4	4	4	4
361	Mar-16	Domestic	Other	Turbine	BE20 - Beech 200 Super King	2	0	2	10	5	0	0
362	Mar-16	Domestic	Other	Turbine	BE9L - Beech King Air 90	1	3	4	6	6	18	6
363	Mar-16	Domestic	Other	Turbine	PAY2 - Piper Cheyenne 2	0	1	1	0	0	6	6
364	Mar-16	Domestic	Air Taxi	-	LJ75 - Learjet 75	1	1	2	8	8	8	8
365	Apr-16	US to Foreign	General Aviation	Jet	C25B - Cessna Citation CJ3	1	0	1	5	5	0	0
366	Apr-16	US to Foreign	General Aviation	Jet	C510 - Cessna Citation Mustang	2	0	2	12	6	0	0
367	Apr-16	US to Foreign	General Aviation	Piston	BE35 - Beech Bonanza 35	1	0	1	4	4	0	0
368	Apr-16	US to Foreign	General Aviation	Piston	C210 - Cessna 210 Centurion	1	0	1	6	6	0	0
369	Apr-16	US to Foreign	General Aviation	Turbine	B350 - Beech Super King Air 350	1	0	1	6	6	0	0
370	Apr-16	US to Foreign	General Aviation	Turbine	BE20 - Beech 200 Super King	1	0	1	5	5	0	0
371	Apr-16	Domestic	Air Carrier	Jet	C525 - Cessna CitationJet/CJ1	1	0	1	5	5	0	0
372	Apr-16	Domestic	Air Carrier	Jet	C56X - Cessna Excel/XLS	2	2	4	30	15	30	15
373	Apr-16	Domestic	Air Carrier	Jet	CL60 - Bombardier Challenger 600/601/604	1	1	2	15	15	15	15
374	Apr-16	Domestic	Air Carrier	Jet	E50P - Embraer Phenom 100	1	1	2	6	6	6	6
375	Apr-16	Domestic	Air Carrier	Jet	EA50 - Eclipse 500	1	1	2	6	6	6	6
376	Apr-16	Domestic	Air Carrier	Piston	BE36 - Beech Bonanza 36	0	1	1	0	0	4	4
377	Apr-16	Domestic	Air Carrier	Piston	C172 - Cessna Skyhawk 172/Cutlass	1	0	1	4	4	0	0
378	Apr-16	Domestic	Air Carrier	Piston	C340 - Cessna 340	0	1	1	0	0	6	6

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#	Date	Flight Type	User Class	Physical Class	Aircraft	Departures	Arrivals	Total Operations	Departure Seats	Average Departure	Arrival Seats	Average Arrival
379	Apr-16	Domestic	Air Carrier	Piston	P28A - Piper Cherokee	1	0	1	4	4	0	0
380	Apr-16	Domestic	Air Carrier	Piston	SR22 - Cirrus SR 22	3	3	6	12	4	12	4
381	Apr-16	Domestic	Air Carrier	Turbine	B350 - Beech Super King Air 350	1	2	3	6	6	12	6
382	Apr-16	Domestic	Air Carrier	Turbine	BE20 - Beech 200 Super King	13	10	23	65	5	50	5
383	Apr-16	Domestic	Air Carrier	Turbine	EC35 - Eurocopter EC-135	1	4	5	7	7	28	7
384	Apr-16	Domestic	Air Carrier	Turbine	P46T - Piper Malibu Meridian	0	1	1	0	0	6	6
385	Apr-16	Domestic	Air Carrier	Turbine	PC12 - Pilatus PC-12	0	1	1	0	0	9	9
386	Apr-16	Domestic	Freight	Piston	BE99 - Beech Airliner 99	5	5	10	0	0	0	0
387	Apr-16	Domestic	General Aviation	-	-1 - unknown	3	2	5	0	0	0	0
388	Apr-16	Domestic	General Aviation	-	BE9 - Beechcraft C99 Airliner; Beech Aircraft	0	1	1	0	0	19	19
389	Apr-16	Domestic	General Aviation	-	H35 - Beech/Raytheon H 35 Bonanza	1	0	1	0	0	0	0
390	Apr-16	Domestic	General Aviation	-	S22T - Cirrus SR-22 Turbo	2	2	4	0	0	0	0
391	Apr-16	Domestic	General Aviation	-	T210 - Cessna T210M	1	1	2	2	2	2	2
392	Apr-16	Domestic	General Aviation	Jet	C25A - Cessna Citation CJ2	4	4	8	32	8	32	8
393	Apr-16	Domestic	General Aviation	Jet	C25B - Cessna Citation CJ3	3	4	7	15	5	20	5
394	Apr-16	Domestic	General Aviation	Jet	C25C - Cessna Citation CJ4	5	5	10	0	0	0	0
395	Apr-16	Domestic	General Aviation	Jet	C500 - Cessna 500/Citation I	3	3	6	18	6	18	6
396	Apr-16	Domestic	General Aviation	Jet	C501 - Cessna I/SP	0	1	1	0	0	6	6
397	Apr-16	Domestic	General Aviation	Jet	C510 - Cessna Citation Mustang	4	5	9	24	6	30	6
398	Apr-16	Domestic	General Aviation	Jet	C525 - Cessna CitationJet/CJ1	18	18	36	90	5	90	5
399	Apr-16	Domestic	General Aviation	Jet	C550 - Cessna Citation II/Bravo	4	4	8	40	10	40	10
400	Apr-16	Domestic	General Aviation	Jet	C551 - Cessna Citation II/SP	0	1	1	0	0	6	6
401	Apr-16	Domestic	General Aviation	Jet	C560 - Cessna Citation V/Ultra/Encore	5	5	10	40	8	40	8
402	Apr-16	Domestic	General Aviation	Jet	C56X - Cessna Excel/XLS	1	1	2	15	15	15	15
403	Apr-16	Domestic	General Aviation	Jet	C680 - Cessna Citation Sovereign	2	2	4	24	12	24	12
404	Apr-16	Domestic	General Aviation	Jet	DA20 - Diamond DA 20	1	0	1	2	2	0	0
405	Apr-16	Domestic	General Aviation	Jet	EA50 - Eclipse 500	22	19	41	0	0	0	0
406	Apr-16	Domestic	General Aviation	Jet	LJ31 - Bombardier Learjet 31/A/B	1	1	2	8	8	8	8
407	Apr-16	Domestic	General Aviation	Jet	LJ35 - Bombardier Learjet 35/36	4	7	11	32	8	56	8
408	Apr-16	Domestic	General Aviation	Jet	PRM1 - Raytheon Premier 1/390 Premier 1	2	1	3	12	6	6	6
409	Apr-16	Domestic	General Aviation	Piston	AA5 - American AA-5 Traveler	5	3	8	15	3	9	3
410	Apr-16	Domestic	General Aviation	Piston	BE33 - Beech Bonanza 33	7	4	11	35	5	20	5
411	Apr-16	Domestic	General Aviation	Piston	BE35 - Beech Bonanza 35	10	10	20	40	4	40	4
412	Apr-16	Domestic	General Aviation	Piston	BE36 - Beech Bonanza 36	8	8	16	32	4	32	4
413	Apr-16	Domestic	General Aviation	Piston	BE55 - Beech Baron 55	7	6	13	42	6	36	6
414	Apr-16	Domestic	General Aviation	Piston	BE58 - Beech 58	15	16	31	60	4	64	4
415	Apr-16	Domestic	General Aviation	Piston	BE76 - Beech 76 Duchess	5	3	8	20	4	12	4
416	Apr-16	Domestic	General Aviation	Piston	C172 - Cessna Skyhawk 172/Cutlass	41	42	83	164	4	168	4
417	Apr-16	Domestic	General Aviation	Piston	C177 - Cessna 177 Cardinal	1	1	2	4	4	4	4
418	Apr-16	Domestic	General Aviation	Piston	C180 - Cessna 180	3	3	6	12	4	12	4
419	Apr-16	Domestic	General Aviation	Piston	C182 - Cessna Skylane 182	21	15	36	84	4	60	4
420	Apr-16	Domestic	General Aviation	Piston	C185 - Cessna Skywagon 185	1	1	2	6	6	6	6
421	Apr-16	Domestic	General Aviation	Piston	C206 - Cessna 206 Stationair	4	3	7	16	4	12	4
422	Apr-16	Domestic	General Aviation	Piston	C210 - Cessna 210 Centurion	11	6	17	66	6	36	6
423	Apr-16	Domestic	General Aviation	Piston	C310 - Cessna 310	2	1	3	12	6	6	6
424	Apr-16	Domestic	General Aviation	Piston	C340 - Cessna 340	10	13	23	60	6	78	6
425	Apr-16	Domestic	General Aviation	Piston	C414 - Cessna Chancellor 414	6	5	11	36	6	30	6
426	Apr-16	Domestic	General Aviation	Piston	C421 - Cessna Golden Eagle 421	8	11	19	64	8	88	8
427	Apr-16	Domestic	General Aviation	Piston	C82R - Cessna Skylane RG	4	6	10	16	4	24	4
428	Apr-16	Domestic	General Aviation	Piston	COL4 - Lancair LC-41 Columbia 400	9	7	16	36	4	28	4
429	Apr-16	Domestic	General Aviation	Piston	DA40 - Diamond Star DA40	7	10	17	42	6	60	6
430	Apr-16	Domestic	General Aviation	Piston	DA42 - Diamond Twin Star	0	2	2	0	0	0	0
431	Apr-16	Domestic	General Aviation	Piston	E300 - Extra EA-300	1	1	2	2	2	2	2
432	Apr-16	Domestic	General Aviation	Piston	LGEZ - Rutan 61 Long-EZ	1	1	2	2	2	2	2

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433	Apr-16	Domestic	General Aviation	Piston	LNC4 - Lancair 4	0	1	1	0	0	4	4
434	Apr-16	Domestic	General Aviation	Piston	M20P - Mooney M-20C Ranger	5	4	9	20	4	16	4
435	Apr-16	Domestic	General Aviation	Piston	M20T - Turbo Mooney M20K	6	4	10	24	4	16	4
436	Apr-16	Domestic	General Aviation	Piston	MO20 - Mooney M-20	0	1	1	0	0	4	4
437	Apr-16	Domestic	General Aviation	Piston	P210 - Riley Super P210	6	3	9	36	6	18	6
438	Apr-16	Domestic	General Aviation	Piston	P28A - Piper Cherokee	20	11	31	80	4	44	4
439	Apr-16	Domestic	General Aviation	Piston	P28B - Piper Turbo Dakota	1	1	2	4	4	4	4
440	Apr-16	Domestic	General Aviation	Piston	P28R - Cherokee Arrow/Turbo	1	4	5	4	4	16	4
441	Apr-16	Domestic	General Aviation	Piston	P32R - Piper 32	1	1	2	4	4	4	4
442	Apr-16	Domestic	General Aviation	Piston	PA23 - Piper PA-23	1	1	2	5	5	5	5
443	Apr-16	Domestic	General Aviation	Piston	PA24 - Piper PA-24	2	1	3	10	5	5	5
444	Apr-16	Domestic	General Aviation	Piston	PA28 - Piper Cherokee	2	3	5	56	28	84	28
445	Apr-16	Domestic	General Aviation	Piston	PA30 - Piper PA-30	1	1	2	6	6	6	6
446	Apr-16	Domestic	General Aviation	Piston	PA31 - Piper Navajo PA-31	1	1	2	8	8	8	8
447	Apr-16	Domestic	General Aviation	Piston	PA32 - Piper Cherokee Six	7	3	10	42	6	18	6
448	Apr-16	Domestic	General Aviation	Piston	PA34 - Piper PA-34 Seneca	1	1	2	6	6	6	6
449	Apr-16	Domestic	General Aviation	Piston	PA44 - Piper Seminole	9	7	16	36	4	28	4
450	Apr-16	Domestic	General Aviation	Piston	PA46 - Piper Malibu	12	6	18	72	6	36	6
451	Apr-16	Domestic	General Aviation	Piston	RV10 - Experimental	1	1	2	0	0	0	0
452	Apr-16	Domestic	General Aviation	Piston	RV6 - AIEP Air Beetle	1	2	3	2	2	4	2
453	Apr-16	Domestic	General Aviation	Piston	RV7 - Experimental RV-7	2	2	4	4	2	4	2
454	Apr-16	Domestic	General Aviation	Piston	SR20 - Cirrus SR-20	7	1	8	28	4	4	4
455	Apr-16	Domestic	General Aviation	Piston	SR22 - Cirrus SR 22	48	45	93	192	4	180	4
456	Apr-16	Domestic	General Aviation	Piston	TRIN - Socata TB-21 Trinidad	1	0	1	4	4	0	0
457	Apr-16	Domestic	General Aviation	Turbine	AC80 - Aero Commander Turbo 680	3	2	5	12	4	8	4
458	Apr-16	Domestic	General Aviation	Turbine	AC90 - Gulfstream Commander	0	1	1	0	0	4	4
459	Apr-16	Domestic	General Aviation	Turbine	B190 - Beech 1900/C-12J	58	58	116	1,102	19	1,102	19
460	Apr-16	Domestic	General Aviation	Turbine	B350 - Beech Super King Air 350	5	6	11	30	6	36	6
461	Apr-16	Domestic	General Aviation	Turbine	BE20 - Beech 200 Super King	24	21	45	120	5	105	5
462	Apr-16	Domestic	General Aviation	Turbine	BE30 - Raytheon 300 Super King Air	3	1	4	24	8	8	8
463	Apr-16	Domestic	General Aviation	Turbine	BE9L - Beech King Air 90	12	10	22	72	6	60	6
464	Apr-16	Domestic	General Aviation	Turbine	BE9T - Beech F90 King Air	1	1	2	4	4	4	4
465	Apr-16	Domestic	General Aviation	Turbine	C208 - Cessna 208 Caravan	1	2	3	14	14	28	14
466	Apr-16	Domestic	General Aviation	Turbine	C425 - Cessna 425 Corsair	1	1	2	4	4	4	4
467	Apr-16	Domestic	General Aviation	Turbine	C441 - Cessna Conquest	5	6	11	30	6	36	6
468	Apr-16	Domestic	General Aviation	Turbine	DHC6 - DeHavilland Twin Otter	5	1	6	50	10	10	10
469	Apr-16	Domestic	General Aviation	Turbine	EVOT - Lancair Evolution Turbine	1	1	2	0	0	0	0
470	Apr-16	Domestic	General Aviation	Turbine	LNP4 - Lancair Propjet four-seat	1	1	2	0	0	0	0
471	Apr-16	Domestic	General Aviation	Turbine	MU2 - Mitsubishi Marquise/Solitaire	2	2	4	12	6	12	6
472	Apr-16	Domestic	General Aviation	Turbine	P46T - Piper Malibu Meridian	9	5	14	54	6	30	6
473	Apr-16	Domestic	General Aviation	Turbine	PAY2 - Piper Cheyenne 2	2	2	4	12	6	12	6
474	Apr-16	Domestic	General Aviation	Turbine	PC12 - Pilatus PC-12	15	13	28	135	9	117	9
475	Apr-16	Domestic	General Aviation	Turbine	SW3 - Fairchild Swearingen SA-226T/TB Merlin 3	1	1	2	20	20	20	20
476	Apr-16	Domestic	General Aviation	Turbine	TBM7 - Socata TBM-7	11	10	21	44	4	40	4
477	Apr-16	Domestic	General Aviation	Turbine	TBM8 - Socata TBM-850	4	5	9	0	0	0	0
478	Apr-16	Domestic	Military	-	H60 - Sikorsky SH-60 Seahawk	1	1	2	4	4	4	4
479	Apr-16	Domestic	Military	Piston	C206 - Cessna 206 Stationair	1	0	1	4	4	0	0
480	Apr-16	Domestic	Military	Piston	PA28 - Piper Cherokee	0	1	1	0	0	28	28
481	Apr-16	Domestic	Military	Piston	PA32 - Piper Cherokee Six	1	0	1	6	6	0	0
482	Apr-16	Domestic	Military	Piston	SR20 - Cirrus SR-20	2	0	2	8	4	0	0
483	Apr-16	Domestic	Military	Turbine	B190 - Beech 1900/C-12J	1	0	1	19	19	0	0
484	Apr-16	Domestic	Military	Turbine	BE20 - Beech 200 Super King	3	8	11	15	5	40	5
485	Apr-16	Domestic	Military	Turbine	BE30 - Raytheon 300 Super King Air	2	1	3	16	8	8	8
486	Apr-16	Domestic	Military	Turbine	EC35 - Eurocopter EC-135	1	0	1	7	7	0	0

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#	Date	Flight Type	User Class	Physical Class	Aircraft	Departures	Arrivals	Total Operations	Departure Seats	Average Departure	Arrival Seats	Average Arrival
487	Apr-16	Domestic	Military	Turbine	EC45 - Eurocopter EC-145	2	4	6	20	10	40	10
488	Apr-16	Domestic	Military	Turbine	PC12 - Pilatus PC-12	0	1	1	0	0	9	9
489	Apr-16	Domestic	Other	Jet	C525 - Cessna CitationJet/CJ1	1	1	2	5	5	5	5
490	Apr-16	Domestic	Other	Jet	LJ35 - Bombardier Learjet 35/36	6	3	9	48	8	24	8
491	Apr-16	Domestic	Other	Piston	-1 - unknown	1	2	3	0	0	0	0
492	Apr-16	Domestic	Other	Piston	C206 - Cessna 206 Stationair	1	0	1	4	4	0	0
493	Apr-16	Domestic	Other	Piston	C421 - Cessna Golden Eagle 421	8	13	21	64	8	104	8
494	Apr-16	Domestic	Other	Piston	PA24 - Piper PA-24	0	1	1	0	0	5	5
495	Apr-16	Domestic	Other	Turbine	B350 - Beech Super King Air 350	1	1	2	6	6	6	6
496	Apr-16	Domestic	Other	Turbine	BE9L - Beech King Air 90	1	5	6	6	6	30	6
497	Apr-16	Domestic	Air Taxi	Jet	BE40 - Raytheon/Beech Beechjet 400/T-1	0	1	1	0	0	5	5
498	Apr-16	Domestic	Air Taxi	Jet	C56X - Cessna Excel/XLS	1	2	3	15	15	30	15
499	Apr-16	Domestic	Air Taxi	Jet	CL30 - Bombardier (Canadair) Challenger 300	1	1	2	8	8	8	8
500	May-16	US to Foreign	General Aviation	Jet	C25A - Cessna Citation CJ2	1	0	1	8	8	0	0
501	May-16	US to Foreign	General Aviation	Jet	C510 - Cessna Citation Mustang	1	0	1	6	6	0	0
502	May-16	US to Foreign	General Aviation	Piston	BE33 - Beech Bonanza 33	1	0	1	5	5	0	0
503	May-16	US to Foreign	General Aviation	Piston	BE35 - Beech Bonanza 35	1	0	1	4	4	0	0
504	May-16	US to Foreign	General Aviation	Piston	C210 - Cessna 210 Centurion	1	0	1	6	6	0	0
505	May-16	US to Foreign	General Aviation	Piston	C414 - Cessna Chancellor 414	1	0	1	6	6	0	0
506	May-16	US to Foreign	General Aviation	Turbine	B350 - Beech Super King Air 350	2	0	2	12	6	0	0
507	May-16	US to Foreign	General Aviation	Turbine	BE20 - Beech 200 Super King	1	0	1	5	5	0	0
508	May-16	US to Foreign	Military	Piston	SR22 - Cirrus SR 22	1	0	1	4	4	0	0
509	May-16	US to Foreign	Military	Turbine	BE30 - Raytheon 300 Super King Air	1	0	1	8	8	0	0
510	May-16	Domestic	Air Carrier	-	HELO - Helicoper	1	0	1	0	0	0	0
511	May-16	Domestic	Air Carrier	Jet	C525 - Cessna CitationJet/CJ1	1	1	2	5	5	5	5
512	May-16	Domestic	Air Carrier	Jet	C56X - Cessna Excel/XLS	1	1	2	15	15	15	15
513	May-16	Domestic	Air Carrier	Jet	CL60 - Bombardier Challenger 600/601/604	1	1	2	15	15	15	15
514	May-16	Domestic	Air Carrier	Jet	E50P - Embraer Phenom 100	1	1	2	6	6	6	6
515	May-16	Domestic	Air Carrier	Jet	F900 - Dassault Falcon 900	1	1	2	8	8	8	8
516	May-16	Domestic	Air Carrier	Piston	BE33 - Beech Bonanza 33	0	1	1	0	0	5	5
517	May-16	Domestic	Air Carrier	Piston	C182 - Cessna Skylane 182	4	1	5	16	4	4	4
518	May-16	Domestic	Air Carrier	Piston	P68 - Partenavia P68 Victor	1	0	1	6	6	0	0
519	May-16	Domestic	Air Carrier	Piston	PA32 - Piper Cherokee Six	1	1	2	6	6	6	6
520	May-16	Domestic	Air Carrier	Piston	SR20 - Cirrus SR-20	1	1	2	4	4	4	4
521	May-16	Domestic	Air Carrier	Turbine	B350 - Beech Super King Air 350	7	7	14	42	6	42	6
522	May-16	Domestic	Air Carrier	Turbine	BE20 - Beech 200 Super King	19	20	39	95	5	100	5
523	May-16	Domestic	Air Carrier	Turbine	EC35 - Eurocopter EC-135	15	9	24	105	7	63	7
524	May-16	Domestic	Air Carrier	Turbine	PC12 - Pilatus PC-12	1	1	2	9	9	9	9
525	May-16	Domestic	Freight	Piston	BE99 - Beech Airliner 99	4	4	8	0	0	0	0
526	May-16	Domestic	General Aviation	-	-1 - unknown	3	2	5	0	0	0	0
527	May-16	Domestic	General Aviation	-	LMC2 - unknown	1	0	1	0	0	0	0
528	May-16	Domestic	General Aviation	-	M20K - Mooney M-20	1	0	1	4	4	0	0
529	May-16	Domestic	General Aviation	-	S22T - Cirrus SR-22 Turbo	1	0	1	0	0	0	0
530	May-16	Domestic	General Aviation	-	T210 - Cessna T210M	2	1	3	4	2	2	2
531	May-16	Domestic	General Aviation	Jet	BE40 - Raytheon/Beech Beechjet 400/T-1	1	1	2	5	5	5	5
532	May-16	Domestic	General Aviation	Jet	C25A - Cessna Citation CJ2	8	8	16	64	8	64	8
533	May-16	Domestic	General Aviation	Jet	C25B - Cessna Citation CJ3	6	7	13	30	5	35	5
534	May-16	Domestic	General Aviation	Jet	C25C - Cessna Citation CJ4	5	5	10	0	0	0	0
535	May-16	Domestic	General Aviation	Jet	C500 - Cessna 500/Citation I	1	1	2	6	6	6	6
536	May-16	Domestic	General Aviation	Jet	C501 - Cessna I/SP	0	1	1	0	0	6	6
537	May-16	Domestic	General Aviation	Jet	C510 - Cessna Citation Mustang	13	14	27	78	6	84	6
538	May-16	Domestic	General Aviation	Jet	C525 - Cessna CitationJet/CJ1	13	13	26	65	5	65	5
539	May-16	Domestic	General Aviation	Jet	C550 - Cessna Citation II/Bravo	8	9	17	80	10	90	10
540	May-16	Domestic	General Aviation	Jet	C560 - Cessna Citation V/Ultra/Encore	4	4	8	32	8	32	8

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#	Date	Flight Type	User Class	Physical Class	Aircraft	Departures	Arrivals	Total Operations	Departure Seats	Average Departure	Arrival Seats	Average Arrival
541	May-16	Domestic	General Aviation	Jet	C56X - Cessna Excel/XLS	2	2	4	30	15	30	15
542	May-16	Domestic	General Aviation	Jet	C680 - Cessna Citation Sovereign	1	1	2	12	12	12	12
543	May-16	Domestic	General Aviation	Jet	E50P - Embraer Phenom 100	1	1	2	6	6	6	6
544	May-16	Domestic	General Aviation	Jet	E55P - Embraer Phenom 300	2	2	4	16	8	16	8
545	May-16	Domestic	General Aviation	Jet	EA50 - Eclipse 500	22	24	46	0	0	0	0
546	May-16	Domestic	General Aviation	Jet	FA10 - Dassault Falcon/Mystère 10	2	1	3	8	4	4	4
547	May-16	Domestic	General Aviation	Jet	LJ35 - Bombardier Learjet 35/36	2	2	4	16	8	16	8
548	May-16	Domestic	General Aviation	Jet	LJ45 - Bombardier Learjet 45	1	1	2	10	10	10	10
549	May-16	Domestic	General Aviation	Jet	PRM1 - Raytheon Premier 1/390 Premier 1	2	2	4	12	6	12	6
550	May-16	Domestic	General Aviation	Piston	AA5 - American AA-5 Traveler	7	6	13	21	3	18	3
551	May-16	Domestic	General Aviation	Piston	AC11 - North American Commander 112	1	1	2	4	4	4	4
552	May-16	Domestic	General Aviation	Piston	AC50 - Aero Commander 500	1	1	2	4	4	4	4
553	May-16	Domestic	General Aviation	Piston	AC95 - Gulfstream Jetprop Commander 1000	1	2	3	6	6	12	6
554	May-16	Domestic	General Aviation	Piston	AEST - Piper Aero Star	1	1	2	4	4	4	4
555	May-16	Domestic	General Aviation	Piston	BE33 - Beech Bonanza 33	8	9	17	40	5	45	5
556	May-16	Domestic	General Aviation	Piston	BE35 - Beech Bonanza 35	12	9	21	48	4	36	4
557	May-16	Domestic	General Aviation	Piston	BE36 - Beech Bonanza 36	25	17	42	100	4	68	4
558	May-16	Domestic	General Aviation	Piston	BE55 - Beech Baron 55	4	4	8	24	6	24	6
559	May-16	Domestic	General Aviation	Piston	BE58 - Beech 58	16	15	31	64	4	60	4
560	May-16	Domestic	General Aviation	Piston	BE76 - Beech 76 Duchess	4	4	8	16	4	16	4
561	May-16	Domestic	General Aviation	Piston	C172 - Cessna Skyhawk 172/Cutlass	72	55	127	288	4	220	4
562	May-16	Domestic	General Aviation	Piston	C177 - Cessna 177 Cardinal	3	2	5	12	4	8	4
563	May-16	Domestic	General Aviation	Piston	C180 - Cessna 180	1	0	1	4	4	0	0
564	May-16	Domestic	General Aviation	Piston	C182 - Cessna Skylane 182	30	20	50	120	4	80	4
565	May-16	Domestic	General Aviation	Piston	C185 - Cessna Skywagon 185	2	2	4	12	6	12	6
566	May-16	Domestic	General Aviation	Piston	C205 - Cessna 205	1	1	2	6	6	6	6
567	May-16	Domestic	General Aviation	Piston	C206 - Cessna 206 Stationair	1	0	1	4	4	0	0
568	May-16	Domestic	General Aviation	Piston	C210 - Cessna 210 Centurion	9	10	19	54	6	60	6
569	May-16	Domestic	General Aviation	Piston	C310 - Cessna 310	4	2	6	24	6	12	6
570	May-16	Domestic	General Aviation	Piston	C340 - Cessna 340	6	5	11	36	6	30	6
571	May-16	Domestic	General Aviation	Piston	C414 - Cessna Chancellor 414	8	5	13	48	6	30	6
572	May-16	Domestic	General Aviation	Piston	C421 - Cessna Golden Eagle 421	19	12	31	152	8	96	8
573	May-16	Domestic	General Aviation	Piston	C72R - Cessna Cutlass RG	1	1	2	4	4	4	4
574	May-16	Domestic	General Aviation	Piston	C82R - Cessna Skylane RG	4	4	8	16	4	16	4
575	May-16	Domestic	General Aviation	Piston	COL4 - Lancair LC-41 Columbia 400	9	9	18	36	4	36	4
576	May-16	Domestic	General Aviation	Piston	DA40 - Diamond Star DA40	5	3	8	30	6	18	6
577	May-16	Domestic	General Aviation	Piston	DA42 - Diamond Twin Star	3	1	4	0	0	0	0
578	May-16	Domestic	General Aviation	Piston	E300 - Extra EA-300	2	2	4	4	2	4	2
579	May-16	Domestic	General Aviation	Piston	LNC2 - Lancair 360	2	0	2	8	4	0	0
580	May-16	Domestic	General Aviation	Piston	LNC4 - Lancair 4	1	1	2	4	4	4	4
581	May-16	Domestic	General Aviation	Piston	M20 - Mooney M-20C Ranger	1	0	1	4	4	0	0
582	May-16	Domestic	General Aviation	Piston	M20P - Mooney M-20C Ranger	12	12	24	48	4	48	4
583	May-16	Domestic	General Aviation	Piston	M20T - Turbo Mooney M20K	8	4	12	32	4	16	4
584	May-16	Domestic	General Aviation	Piston	P210 - Riley Super P210	9	4	13	54	6	24	6
585	May-16	Domestic	General Aviation	Piston	P28A - Piper Cherokee	30	27	57	120	4	108	4
586	May-16	Domestic	General Aviation	Piston	P28R - Cherokee Arrow/Turbo	3	1	4	12	4	4	4
587	May-16	Domestic	General Aviation	Piston	P32R - Piper 32	0	1	1	0	0	4	4
588	May-16	Domestic	General Aviation	Piston	PA23 - Piper PA-23	3	2	5	15	5	10	5
589	May-16	Domestic	General Aviation	Piston	PA24 - Piper PA-24	4	4	8	20	5	20	5
590	May-16	Domestic	General Aviation	Piston	PA28 - Piper Cherokee	6	3	9	168	28	84	28
591	May-16	Domestic	General Aviation	Piston	PA31 - Piper Navajo PA-31	5	5	10	40	8	40	8
592	May-16	Domestic	General Aviation	Piston	PA32 - Piper Cherokee Six	9	9	18	54	6	54	6
593	May-16	Domestic	General Aviation	Piston	PA34 - Piper PA-34 Seneca	2	1	3	12	6	6	6
594	May-16	Domestic	General Aviation	Piston	PA44 - Piper Seminole	13	12	25	52	4	48	4

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#	Date	Flight Type	User Class	Physical Class	Aircraft	Departures	Arrivals	Total Operations	Departure Seats	Average Departure	Arrival Seats	Average Arrival
595	May-16	Domestic	General Aviation	Piston	PA46 - Piper Malibu	10	10	20	60	6	60	6
596	May-16	Domestic	General Aviation	Piston	RV10 - Experimental	1	0	1	0	0	0	0
597	May-16	Domestic	General Aviation	Piston	RV7 - Experimental RV-7	1	1	2	2	2	2	2
598	May-16	Domestic	General Aviation	Piston	SR20 - Cirrus SR-20	4	2	6	16	4	8	4
599	May-16	Domestic	General Aviation	Piston	SR22 - Cirrus SR 22	64	54	118	256	4	216	4
600	May-16	Domestic	General Aviation	Piston	TBM - Grumman G-40 Avenger	0	1	1	0	0	2	2
601	May-16	Domestic	General Aviation	Turbine	AC80 - Aero Commander Turbo 680	0	1	1	0	0	4	4
602	May-16	Domestic	General Aviation	Turbine	AC90 - Gulfstream Commander	1	1	2	4	4	4	4
603	May-16	Domestic	General Aviation	Turbine	B350 - Beech Super King Air 350	59	59	118	354	6	354	6
604	May-16	Domestic	General Aviation	Turbine	BE10 - Beech King Air 100 A/B	1	1	2	4	4	4	4
605	May-16	Domestic	General Aviation	Turbine	BE20 - Beech 200 Super King	40	36	76	200	5	180	5
606	May-16	Domestic	General Aviation	Turbine	BE9L - Beech King Air 90	15	15	30	90	6	90	6
607	May-16	Domestic	General Aviation	Turbine	BE9T - Beech F90 King Air	2	1	3	8	4	4	4
608	May-16	Domestic	General Aviation	Turbine	C425 - Cessna 425 Corsair	2	1	3	8	4	4	4
609	May-16	Domestic	General Aviation	Turbine	C441 - Cessna Conquest	5	5	10	30	6	30	6
610	May-16	Domestic	General Aviation	Turbine	EC35 - Eurocopter EC-135	2	2	4	14	7	14	7
611	May-16	Domestic	General Aviation	Turbine	P46T - Piper Malibu Meridian	5	3	8	30	6	18	6
612	May-16	Domestic	General Aviation	Turbine	PAY1 - Piper Cheyenne 1	1	1	2	4	4	4	4
613	May-16	Domestic	General Aviation	Turbine	PC12 - Pilatus PC-12	22	23	45	198	9	207	9
614	May-16	Domestic	General Aviation	Turbine	SW3 - Fairchild Swearingen SA-226T/TB Merlin 3	1	1	2	20	20	20	20
615	May-16	Domestic	General Aviation	Turbine	TBM7 - Socata TBM-7	7	8	15	28	4	32	4
616	May-16	Domestic	General Aviation	Turbine	TBM8 - Socata TBM-850	6	4	10	0	0	0	0
617	May-16	Domestic	Military	-	B300 - Beech 300 Super King	1	0	1	6	6	0	0
618	May-16	Domestic	Military	-	H60 - Sikorsky SH-60 Seahawk	0	1	1	0	0	4	4
619	May-16	Domestic	Military	Piston	BE76 - Beech 76 Duchess	2	0	2	8	4	0	0
620	May-16	Domestic	Military	Piston	C172 - Cessna Skyhawk 172/Cutlass	1	0	1	4	4	0	0
621	May-16	Domestic	Military	Piston	C182 - Cessna Skylane 182	2	0	2	8	4	0	0
622	May-16	Domestic	Military	Piston	C82R - Cessna Skylane RG	1	0	1	4	4	0	0
623	May-16	Domestic	Military	Piston	P28A - Piper Cherokee	3	0	3	12	4	0	0
624	May-16	Domestic	Military	Piston	PA23 - Piper PA-23	1	0	1	5	5	0	0
625	May-16	Domestic	Military	Piston	PA31 - Piper Navajo PA-31	1	0	1	8	8	0	0
626	May-16	Domestic	Military	Piston	PA32 - Piper Cherokee Six	1	0	1	6	6	0	0
627	May-16	Domestic	Military	Piston	PA44 - Piper Seminole	2	0	2	8	4	0	0
628	May-16	Domestic	Military	Piston	SR22 - Cirrus SR 22	1	0	1	4	4	0	0
629	May-16	Domestic	Military	Turbine	B350 - Beech Super King Air 350	3	0	3	18	6	0	0
630	May-16	Domestic	Military	Turbine	BE20 - Beech 200 Super King	2	6	8	10	5	30	5
631	May-16	Domestic	Military	Turbine	BE30 - Raytheon 300 Super King Air	4	3	7	32	8	24	8
632	May-16	Domestic	Military	Turbine	EC35 - Eurocopter EC-135	2	2	4	14	7	14	7
633	May-16	Domestic	Military	Turbine	EC45 - Eurocopter EC-145	2	0	2	20	10	0	0
634	May-16	Domestic	Military	Turbine	PC12 - Pilatus PC-12	1	0	1	9	9	0	0
635	May-16	Domestic	Other	Jet	C525 - Cessna CitationJet/CJ1	1	0	1	5	5	0	0
636	May-16	Domestic	Other	Jet	C560 - Cessna Citation V/Ultra/Encore	1	1	2	8	8	8	8
637	May-16	Domestic	Other	Jet	LJ35 - Bombardier Learjet 35/36	3	2	5	24	8	16	8
638	May-16	Domestic	Other	Piston	-1 - unknown	1	4	5	0	0	0	0
639	May-16	Domestic	Other	Piston	C206 - Cessna 206 Stationair	2	1	3	8	4	4	4
640	May-16	Domestic	Other	Piston	C421 - Cessna Golden Eagle 421	11	9	20	88	8	72	8
641	May-16	Domestic	Other	Piston	PA24 - Piper PA-24	1	0	1	5	5	0	0
642	May-16	Domestic	Other	Turbine	BE9L - Beech King Air 90	0	4	4	0	0	24	6
643	May-16	Domestic	Air Taxi	Jet	CL30 - Bombardier (Canadair) Challenger 300	1	1	2	8	8	8	8
644	Jun-16	US to Foreign	General Aviation	Jet	C25B - Cessna Citation CJ3	1	0	1	5	5	0	0
645	Jun-16	US to Foreign	General Aviation	Jet	C525 - Cessna CitationJet/CJ1	2	0	2	10	5	0	0
646	Jun-16	US to Foreign	General Aviation	Jet	C550 - Cessna Citation II/Bravo	1	0	1	10	10	0	0
647	Jun-16	US to Foreign	General Aviation	Piston	PA32 - Piper Cherokee Six	1	0	1	6	6	0	0
648	Jun-16	US to Foreign	General Aviation	Turbine	BE20 - Beech 200 Super King	1	0	1	5	5	0	0

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#	Date	Flight Type	User Class	Physical Class	Aircraft	Departures	Arrivals	Total Operations	Departure Seats	Average Departure	Arrival Seats	Average Arrival
649	Jun-16	US to Foreign	Military	Jet	EA50 - Eclipse 500	1	0	1	0	0	0	0
650	Jun-16	US to Foreign	Other	Jet	C25C - Cessna Citation CJ4	1	0	1	0	0	0	0
651	Jun-16	Domestic	Air Carrier	Jet	C525 - Cessna CitationJet/CJ1	1	1	2	5	5	5	5
652	Jun-16	Domestic	Air Carrier	Jet	C56X - Cessna Excel/XLS	3	3	6	45	15	45	15
653	Jun-16	Domestic	Air Carrier	Piston	C182 - Cessna Skylane 182	1	1	2	4	4	4	4
654	Jun-16	Domestic	Air Carrier	Piston	SR22 - Cirrus SR 22	1	1	2	4	4	4	4
655	Jun-16	Domestic	Air Carrier	Turbine	B350 - Beech Super King Air 350	2	2	4	12	6	12	6
656	Jun-16	Domestic	Air Carrier	Turbine	BE20 - Beech 200 Super King	10	9	19	50	5	45	5
657	Jun-16	Domestic	Air Carrier	Turbine	BE9L - Beech King Air 90	3	2	5	18	6	12	6
658	Jun-16	Domestic	Air Carrier	Turbine	EC35 - Eurocopter EC-135	8	3	11	56	7	21	7
659	Jun-16	Domestic	Freight	Piston	BE99 - Beech Airliner 99	4	4	8	0	0	0	0
660	Jun-16	Domestic	General Aviation	-	-1 - unknown	4	1	5	0	0	0	0
661	Jun-16	Domestic	General Aviation	-	AC12 - Rockwell Commander 112	0	1	1	0	0	4	4
662	Jun-16	Domestic	General Aviation	-	M20G - unknown	1	0	1	4	4	0	0
663	Jun-16	Domestic	General Aviation	-	M2OP - Mooney M-20C Ranger	1	0	1	4	4	0	0
664	Jun-16	Domestic	General Aviation	-	R44 - Robinson R-44 Raven	1	1	2	4	4	4	4
665	Jun-16	Domestic	General Aviation	Jet	BE40 - Raytheon/Beech Beechjet 400/T-1	2	2	4	10	5	10	5
666	Jun-16	Domestic	General Aviation	Jet	C25A - Cessna Citation CJ2	1	2	3	8	8	16	8
667	Jun-16	Domestic	General Aviation	Jet	C25B - Cessna Citation CJ3	11	10	21	55	5	50	5
668	Jun-16	Domestic	General Aviation	Jet	C25C - Cessna Citation CJ4	7	8	15	0	0	0	0
669	Jun-16	Domestic	General Aviation	Jet	C501 - Cessna I/SP	2	1	3	12	6	6	6
670	Jun-16	Domestic	General Aviation	Jet	C510 - Cessna Citation Mustang	9	7	16	54	6	42	6
671	Jun-16	Domestic	General Aviation	Jet	C525 - Cessna CitationJet/CJ1	16	14	30	80	5	70	5
672	Jun-16	Domestic	General Aviation	Jet	C550 - Cessna Citation II/Bravo	12	11	23	120	10	110	10
673	Jun-16	Domestic	General Aviation	Jet	C560 - Cessna Citation V/Ultra/Encore	1	1	2	8	8	8	8
674	Jun-16	Domestic	General Aviation	Jet	C56X - Cessna Excel/XLS	9	11	20	135	15	165	15
675	Jun-16	Domestic	General Aviation	Jet	E50P - Embraer Phenom 100	3	3	6	18	6	18	6
676	Jun-16	Domestic	General Aviation	Jet	E55P - Embraer Phenom 300	1	1	2	8	8	8	8
677	Jun-16	Domestic	General Aviation	Jet	EA50 - Eclipse 500	27	22	49	0	0	0	0
678	Jun-16	Domestic	General Aviation	Jet	FA10 - Dassault Falcon/Mystère 10	1	1	2	4	4	4	4
679	Jun-16	Domestic	General Aviation	Jet	HDJT - HONDA HA-420 HondaJet	1	1	2	0	0	0	0
680	Jun-16	Domestic	General Aviation	Jet	LJ35 - Bombardier Learjet 35/36	2	5	7	16	8	40	8
681	Jun-16	Domestic	General Aviation	Jet	LJ45 - Bombardier Learjet 45	1	1	2	10	10	10	10
682	Jun-16	Domestic	General Aviation	Jet	PRM1 - Raytheon Premier 1/390 Premier 1	7	7	14	42	6	42	6
683	Jun-16	Domestic	General Aviation	Jet	SBR1 - North American Rockwell Sabre 40/60	1	1	2	5	5	5	5
684	Jun-16	Domestic	General Aviation	Piston	AA5 - American AA-5 Traveler	8	5	13	24	3	15	3
685	Jun-16	Domestic	General Aviation	Piston	AC11 - North American Commander 112	3	1	4	12	4	4	4
686	Jun-16	Domestic	General Aviation	Piston	BE33 - Beech Bonanza 33	7	6	13	35	5	30	5
687	Jun-16	Domestic	General Aviation	Piston	BE35 - Beech Bonanza 35	18	9	27	72	4	36	4
688	Jun-16	Domestic	General Aviation	Piston	BE36 - Beech Bonanza 36	18	20	38	72	4	80	4
689	Jun-16	Domestic	General Aviation	Piston	BE55 - Beech Baron 55	2	1	3	12	6	6	6
690	Jun-16	Domestic	General Aviation	Piston	BE58 - Beech 58	13	14	27	52	4	56	4
691	Jun-16	Domestic	General Aviation	Piston	BE60 - Beech 60 Duke	1	2	3	6	6	12	6
692	Jun-16	Domestic	General Aviation	Piston	BE76 - Beech 76 Duchess	0	2	2	0	0	8	4
693	Jun-16	Domestic	General Aviation	Piston	C170 - Cessna 170	1	0	1	4	4	0	0
694	Jun-16	Domestic	General Aviation	Piston	C172 - Cessna Skyhawk 172/Cutlass	44	37	81	176	4	148	4
695	Jun-16	Domestic	General Aviation	Piston	C177 - Cessna 177 Cardinal	0	1	1	0	0	4	4
696	Jun-16	Domestic	General Aviation	Piston	C180 - Cessna 180	4	3	7	16	4	12	4
697	Jun-16	Domestic	General Aviation	Piston	C182 - Cessna Skylane 182	23	20	43	92	4	80	4
698	Jun-16	Domestic	General Aviation	Piston	C206 - Cessna 206 Stationair	3	3	6	12	4	12	4
699	Jun-16	Domestic	General Aviation	Piston	C210 - Cessna 210 Centurion	9	5	14	54	6	30	6
700	Jun-16	Domestic	General Aviation	Piston	C310 - Cessna 310	1	1	2	6	6	6	6
701	Jun-16	Domestic	General Aviation	Piston	C340 - Cessna 340	5	5	10	30	6	30	6
702	Jun-16	Domestic	General Aviation	Piston	C414 - Cessna Chancellor 414	5	4	9	30	6	24	6

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#	Date	Flight Type	User Class	Physical Class	Aircraft	Departures	Arrivals	Total Operations	Departure Seats	Average Departure	Arrival Seats	Average Arrival
703	Jun-16	Domestic	General Aviation	Piston	C421 - Cessna Golden Eagle 421	8	7	15	64	8	56	8
704	Jun-16	Domestic	General Aviation	Piston	C82R - Cessna Skylane RG	8	6	14	32	4	24	4
705	Jun-16	Domestic	General Aviation	Piston	COL4 - Lancair LC-41 Columbia 400	5	7	12	20	4	28	4
706	Jun-16	Domestic	General Aviation	Piston	DA40 - Diamond Star DA40	6	5	11	36	6	30	6
707	Jun-16	Domestic	General Aviation	Piston	E300 - Extra EA-300	1	1	2	2	2	2	2
708	Jun-16	Domestic	General Aviation	Piston	GA7 - Grumman American Cougar	1	1	2	4	4	4	4
709	Jun-16	Domestic	General Aviation	Piston	LNC2 - Lancair 360	2	0	2	8	4	0	0
710	Jun-16	Domestic	General Aviation	Piston	M20P - Mooney M-20C Ranger	5	4	9	20	4	16	4
711	Jun-16	Domestic	General Aviation	Piston	M20T - Turbo Mooney M20K	4	5	9	16	4	20	4
712	Jun-16	Domestic	General Aviation	Piston	NAVI - C335	1	0	1	4	4	0	0
713	Jun-16	Domestic	General Aviation	Piston	P210 - Riley Super P210	7	5	12	42	6	30	6
714	Jun-16	Domestic	General Aviation	Piston	P28A - Piper Cherokee	19	8	27	76	4	32	4
715	Jun-16	Domestic	General Aviation	Piston	P28B - Piper Turbo Dakota	0	1	1	0	0	4	4
716	Jun-16	Domestic	General Aviation	Piston	P28R - Cherokee Arrow/Turbo	5	3	8	20	4	12	4
717	Jun-16	Domestic	General Aviation	Piston	P32R - Piper 32	1	0	1	4	4	0	0
718	Jun-16	Domestic	General Aviation	Piston	PA24 - Piper PA-24	2	5	7	10	5	25	5
719	Jun-16	Domestic	General Aviation	Piston	PA28 - Piper Cherokee	0	2	2	0	0	56	28
720	Jun-16	Domestic	General Aviation	Piston	PA30 - Piper PA-30	2	2	4	12	6	12	6
721	Jun-16	Domestic	General Aviation	Piston	PA31 - Piper Navajo PA-31	1	1	2	8	8	8	8
722	Jun-16	Domestic	General Aviation	Piston	PA32 - Piper Cherokee Six	3	3	6	18	6	18	6
723	Jun-16	Domestic	General Aviation	Piston	PA34 - Piper PA-34 Seneca	0	1	1	0	0	6	6
724	Jun-16	Domestic	General Aviation	Piston	PA44 - Piper Seminole	9	6	15	36	4	24	4
725	Jun-16	Domestic	General Aviation	Piston	PA46 - Piper Malibu	5	3	8	30	6	18	6
726	Jun-16	Domestic	General Aviation	Piston	RV10 - Experimental	2	1	3	0	0	0	0
727	Jun-16	Domestic	General Aviation	Piston	SR20 - Cirrus SR-20	4	1	5	16	4	4	4
728	Jun-16	Domestic	General Aviation	Piston	SR22 - Cirrus SR 22	54	43	97	216	4	172	4
729	Jun-16	Domestic	General Aviation	Turbine	AC90 - Gulfstream Commander	3	3	6	12	4	12	4
730	Jun-16	Domestic	General Aviation	Turbine	B190 - Beech 1900/C-12J	23	23	46	437	19	437	19
731	Jun-16	Domestic	General Aviation	Turbine	B350 - Beech Super King Air 350	36	36	72	216	6	216	6
732	Jun-16	Domestic	General Aviation	Turbine	B36T - Allison 36 Turbine Bonanza	0	1	1	0	0	6	6
733	Jun-16	Domestic	General Aviation	Turbine	BE20 - Beech 200 Super King	21	25	46	105	5	125	5
734	Jun-16	Domestic	General Aviation	Turbine	BE30 - Raytheon 300 Super King Air	1	1	2	8	8	8	8
735	Jun-16	Domestic	General Aviation	Turbine	BE9L - Beech King Air 90	7	8	15	42	6	48	6
736	Jun-16	Domestic	General Aviation	Turbine	C10T - Cessna P210 (Turbo)	1	1	2	4	4	4	4
737	Jun-16	Domestic	General Aviation	Turbine	C208 - Cessna 208 Caravan	1	1	2	14	14	14	14
738	Jun-16	Domestic	General Aviation	Turbine	C425 - Cessna 425 Corsair	3	4	7	12	4	16	4
739	Jun-16	Domestic	General Aviation	Turbine	C441 - Cessna Conquest	3	2	5	18	6	12	6
740	Jun-16	Domestic	General Aviation	Turbine	EC35 - Eurocopter EC-135	1	0	1	7	7	0	0
741	Jun-16	Domestic	General Aviation	Turbine	P180 - Piaggio P-180 Avanti	1	1	2	9	9	9	9
742	Jun-16	Domestic	General Aviation	Turbine	P46T - Piper Malibu Meridian	3	4	7	18	6	24	6
743	Jun-16	Domestic	General Aviation	Turbine	PC12 - Pilatus PC-12	25	25	50	225	9	225	9
744	Jun-16	Domestic	General Aviation	Turbine	TBM7 - Socata TBM-7	13	13	26	52	4	52	4
745	Jun-16	Domestic	General Aviation	Turbine	TBM8 - Socata TBM-850	4	4	8	0	0	0	0
746	Jun-16	Domestic	Military	Piston	BE35 - Beech Bonanza 35	1	0	1	4	4	0	0
747	Jun-16	Domestic	Military	Piston	BE76 - Beech 76 Duchess	2	0	2	8	4	0	0
748	Jun-16	Domestic	Military	Piston	C172 - Cessna Skyhawk 172/Cutlass	5	1	6	20	4	4	4
749	Jun-16	Domestic	Military	Piston	C210 - Cessna 210 Centurion	1	0	1	6	6	0	0
750	Jun-16	Domestic	Military	Piston	C72R - Cessna Cutlass RG	1	0	1	4	4	0	0
751	Jun-16	Domestic	Military	Piston	P28A - Piper Cherokee	5	1	6	20	4	4	4
752	Jun-16	Domestic	Military	Piston	PA34 - Piper PA-34 Seneca	1	0	1	6	6	0	0
753	Jun-16	Domestic	Military	Piston	PA44 - Piper Seminole	2	0	2	8	4	0	0
754	Jun-16	Domestic	Military	Piston	SR22 - Cirrus SR 22	4	0	4	16	4	0	0
755	Jun-16	Domestic	Military	Turbine	B350 - Beech Super King Air 350	7	5	12	42	6	30	6
756	Jun-16	Domestic	Military	Turbine	BE20 - Beech 200 Super King	7	7	14	35	5	35	5

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757	Jun-16	Domestic	Military	Turbine	BE30 - Raytheon 300 Super King Air	1	0	1	8	8	0	0
758	Jun-16	Domestic	Military	Turbine	EC45 - Eurocopter EC-145	1	2	3	10	10	20	10
759	Jun-16	Domestic	Other	-	-1 - unknown	1	0	1	0	0	0	0
760	Jun-16	Domestic	Other	Jet	C25C - Cessna Citation CJ4	0	1	1	0	0	0	0
761	Jun-16	Domestic	Other	Jet	C680 - Cessna Citation Sovereign	1	1	2	12	12	12	12
762	Jun-16	Domestic	Other	Jet	LJ35 - Bombardier Learjet 35/36	4	2	6	32	8	16	8
763	Jun-16	Domestic	Other	Piston	-1 - unknown	0	3	3	0	0	0	0
764	Jun-16	Domestic	Other	Piston	C421 - Cessna Golden Eagle 421	11	11	22	88	8	88	8
765	Jun-16	Domestic	Other	Turbine	BE20 - Beech 200 Super King	1	0	1	5	5	0	0
766	Jun-16	Domestic	Other	Turbine	BE9L - Beech King Air 90	0	1	1	0	0	6	6
767	Jul-16	US to Foreign	General Aviation	-	-1 - unknown	1	0	1	0	0	0	0
768	Jul-16	US to Foreign	General Aviation	Jet	C510 - Cessna Citation Mustang	1	0	1	6	6	0	0
769	Jul-16	US to Foreign	General Aviation	Piston	C206 - Cessna 206 Stationair	1	0	1	4	4	0	0
770	Jul-16	US to Foreign	General Aviation	Turbine	BE30 - Raytheon 300 Super King Air	1	0	1	8	8	0	0
771	Jul-16	US to Foreign	Military	Turbine	B350 - Beech Super King Air 350	1	0	1	6	6	0	0
772	Jul-16	US to Foreign	Other	Turbine	BE20 - Beech 200 Super King	1	0	1	5	5	0	0
773	Jul-16	Domestic	?	-	-1 - unknown	0	1	1	0	0	0	0
774	Jul-16	Domestic	Air Carrier	-	-1 - unknown	0	2	2	0	0	0	0
775	Jul-16	Domestic	Air Carrier	Jet	C510 - Cessna Citation Mustang	2	2	4	12	6	12	6
776	Jul-16	Domestic	Air Carrier	Jet	C56X - Cessna Excel/XLS	1	1	2	15	15	15	15
777	Jul-16	Domestic	Air Carrier	Jet	E50P - Embraer Phenom 100	3	3	6	18	6	18	6
778	Jul-16	Domestic	Air Carrier	Jet	EA50 - Eclipse 500	1	1	2	6	6	6	6
779	Jul-16	Domestic	Air Carrier	Piston	BE35 - Beech Bonanza 35	1	0	1	4	4	0	0
780	Jul-16	Domestic	Air Carrier	Piston	C172 - Cessna Skyhawk 172/Cutlass	1	0	1	4	4	0	0
781	Jul-16	Domestic	Air Carrier	Piston	SR22 - Cirrus SR 22	0	1	1	0	0	4	4
782	Jul-16	Domestic	Air Carrier	Turbine	B350 - Beech Super King Air 350	7	9	16	42	6	54	6
783	Jul-16	Domestic	Air Carrier	Turbine	BE10 - Beech King Air 100 A/B	1	1	2	4	4	4	4
784	Jul-16	Domestic	Air Carrier	Turbine	BE20 - Beech 200 Super King	11	12	23	55	5	60	5
785	Jul-16	Domestic	Air Carrier	Turbine	BE30 - Raytheon 300 Super King Air	1	1	2	8	8	8	8
786	Jul-16	Domestic	Air Carrier	Turbine	EC35 - Eurocopter EC-135	5	3	8	35	7	21	7
787	Jul-16	Domestic	Air Carrier	Turbine	PC12 - Pilatus PC-12	1	2	3	9	9	18	9
788	Jul-16	Domestic	Freight	Piston	BE99 - Beech Airliner 99	4	5	9	0	0	0	0
789	Jul-16	Domestic	General Aviation	-	-1 - unknown	6	3	9	0	0	0	0
790	Jul-16	Domestic	General Aviation	-	A109 - Agusta SAAF-109	1	1	2	4	4	4	4
791	Jul-16	Domestic	General Aviation	Jet	C25A - Cessna Citation CJ2	4	3	7	32	8	24	8
792	Jul-16	Domestic	General Aviation	Jet	C25B - Cessna Citation CJ3	6	8	14	30	5	40	5
793	Jul-16	Domestic	General Aviation	Jet	C25C - Cessna Citation CJ4	6	6	12	0	0	0	0
794	Jul-16	Domestic	General Aviation	Jet	C501 - Cessna I/SP	5	5	10	30	6	30	6
795	Jul-16	Domestic	General Aviation	Jet	C510 - Cessna Citation Mustang	6	8	14	36	6	48	6
796	Jul-16	Domestic	General Aviation	Jet	C525 - Cessna CitationJet/CJ1	25	25	50	125	5	125	5
797	Jul-16	Domestic	General Aviation	Jet	C550 - Cessna Citation II/Bravo	14	15	29	140	10	150	10
798	Jul-16	Domestic	General Aviation	Jet	C551 - Cessna Citation II/SP	0	1	1	0	0	6	6
799	Jul-16	Domestic	General Aviation	Jet	C560 - Cessna Citation V/Ultra/Encore	4	3	7	32	8	24	8
800	Jul-16	Domestic	General Aviation	Jet	C56X - Cessna Excel/XLS	4	3	7	60	15	45	15
801	Jul-16	Domestic	General Aviation	Jet	C680 - Cessna Citation Sovereign	1	1	2	12	12	12	12
802	Jul-16	Domestic	General Aviation	Jet	E50P - Embraer Phenom 100	3	3	6	18	6	18	6
803	Jul-16	Domestic	General Aviation	Jet	E55P - Embraer Phenom 300	2	2	4	16	8	16	8
804	Jul-16	Domestic	General Aviation	Jet	EA50 - Eclipse 500	23	24	47	0	0	0	0
805	Jul-16	Domestic	General Aviation	Jet	FA10 - Dassault Falcon/Mystère 10	4	6	10	16	4	24	4
806	Jul-16	Domestic	General Aviation	Jet	HDJT - HONDA HA-420 HondaJet	1	1	2	0	0	0	0
807	Jul-16	Domestic	General Aviation	Jet	LJ35 - Bombardier Learjet 35/36	3	7	10	24	8	56	8
808	Jul-16	Domestic	General Aviation	Jet	PRM1 - Raytheon Premier 1/390 Premier 1	7	8	15	42	6	48	6
809	Jul-16	Domestic	General Aviation	Jet	SBR1 - North American Rockwell Sabre 40/60	2	2	4	10	5	10	5
810	Jul-16	Domestic	General Aviation	Piston	AA5 - American AA-5 Traveler	7	2	9	21	3	6	3

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811	Jul-16	Domestic	General Aviation	Piston	AC11 - North American Commander 112	1	1	2	4	4	4	4
812	Jul-16	Domestic	General Aviation	Piston	AC95 - Gulfstream Jetprop Commander 1000	1	1	2	6	6	6	6
813	Jul-16	Domestic	General Aviation	Piston	BE33 - Beech Bonanza 33	6	4	10	30	5	20	5
814	Jul-16	Domestic	General Aviation	Piston	BE35 - Beech Bonanza 35	11	7	18	44	4	28	4
815	Jul-16	Domestic	General Aviation	Piston	BE36 - Beech Bonanza 36	24	18	42	96	4	72	4
816	Jul-16	Domestic	General Aviation	Piston	BE55 - Beech Baron 55	3	3	6	18	6	18	6
817	Jul-16	Domestic	General Aviation	Piston	BE58 - Beech 58	14	16	30	56	4	64	4
818	Jul-16	Domestic	General Aviation	Piston	BE60 - Beech 60 Duke	2	1	3	12	6	6	6
819	Jul-16	Domestic	General Aviation	Piston	C170 - Cessna 170	1	0	1	4	4	0	0
820	Jul-16	Domestic	General Aviation	Piston	C172 - Cessna Skyhawk 172/Cutlass	52	42	94	208	4	168	4
821	Jul-16	Domestic	General Aviation	Piston	C177 - Cessna 177 Cardinal	0	2	2	0	0	8	4
822	Jul-16	Domestic	General Aviation	Piston	C180 - Cessna 180	1	1	2	4	4	4	4
823	Jul-16	Domestic	General Aviation	Piston	C182 - Cessna Skylane 182	23	16	39	92	4	64	4
824	Jul-16	Domestic	General Aviation	Piston	C185 - Cessna Skywagon 185	2	1	3	12	6	6	6
825	Jul-16	Domestic	General Aviation	Piston	C206 - Cessna 206 Stationair	1	2	3	4	4	8	4
826	Jul-16	Domestic	General Aviation	Piston	C210 - Cessna 210 Centurion	7	8	15	42	6	48	6
827	Jul-16	Domestic	General Aviation	Piston	C310 - Cessna 310	1	0	1	6	6	0	0
828	Jul-16	Domestic	General Aviation	Piston	C340 - Cessna 340	4	5	9	24	6	30	6
829	Jul-16	Domestic	General Aviation	Piston	C414 - Cessna Chancellor 414	9	9	18	54	6	54	6
830	Jul-16	Domestic	General Aviation	Piston	C421 - Cessna Golden Eagle 421	7	6	13	56	8	48	8
831	Jul-16	Domestic	General Aviation	Piston	C72R - Cessna Cutlass RG	1	0	1	4	4	0	0
832	Jul-16	Domestic	General Aviation	Piston	C82R - Cessna Skylane RG	6	6	12	24	4	24	4
833	Jul-16	Domestic	General Aviation	Piston	COL4 - Lancair LC-41 Columbia 400	9	8	17	36	4	32	4
834	Jul-16	Domestic	General Aviation	Piston	DA40 - Diamond Star DA40	7	8	15	42	6	48	6
835	Jul-16	Domestic	General Aviation	Piston	DA42 - Diamond Twin Star	1	1	2	0	0	0	0
836	Jul-16	Domestic	General Aviation	Piston	LEG2 - Lancair Legacy 2000	1	1	2	2	2	2	2
837	Jul-16	Domestic	General Aviation	Piston	M20P - Mooney M-20C Ranger	8	5	13	32	4	20	4
838	Jul-16	Domestic	General Aviation	Piston	M20T - Turbo Mooney M20K	5	3	8	20	4	12	4
839	Jul-16	Domestic	General Aviation	Piston	MO20 - Mooney M-20	0	1	1	0	0	4	4
840	Jul-16	Domestic	General Aviation	Piston	P210 - Riley Super P210	8	8	16	48	6	48	6
841	Jul-16	Domestic	General Aviation	Piston	P28A - Piper Cherokee	53	35	88	212	4	140	4
842	Jul-16	Domestic	General Aviation	Piston	P28R - Cherokee Arrow/Turbo	4	3	7	16	4	12	4
843	Jul-16	Domestic	General Aviation	Piston	P32R - Piper 32	0	1	1	0	0	4	4
844	Jul-16	Domestic	General Aviation	Piston	PA20 - Piper PA-20 Pacer	0	1	1	0	0	4	4
845	Jul-16	Domestic	General Aviation	Piston	PA24 - Piper PA-24	1	2	3	5	5	10	5
846	Jul-16	Domestic	General Aviation	Piston	PA28 - Piper Cherokee	3	6	9	84	28	168	28
847	Jul-16	Domestic	General Aviation	Piston	PA30 - Piper PA-30	1	1	2	6	6	6	6
848	Jul-16	Domestic	General Aviation	Piston	PA32 - Piper Cherokee Six	9	6	15	54	6	36	6
849	Jul-16	Domestic	General Aviation	Piston	PA34 - Piper PA-34 Seneca	1	0	1	6	6	0	0
850	Jul-16	Domestic	General Aviation	Piston	PA44 - Piper Seminole	10	9	19	40	4	36	4
851	Jul-16	Domestic	General Aviation	Piston	PA46 - Piper Malibu	7	5	12	42	6	30	6
852	Jul-16	Domestic	General Aviation	Piston	RV10 - Experimental	1	0	1	0	0	0	0
853	Jul-16	Domestic	General Aviation	Piston	RV7 - Experimental RV-7	1	1	2	2	2	2	2
854	Jul-16	Domestic	General Aviation	Piston	SR20 - Cirrus SR-20	4	1	5	16	4	4	4
855	Jul-16	Domestic	General Aviation	Piston	SR22 - Cirrus SR 22	49	42	91	196	4	168	4
856	Jul-16	Domestic	General Aviation	Piston	TBM - Grumman G-40 Avenger	0	1	1	0	0	2	2
857	Jul-16	Domestic	General Aviation	Turbine	AC80 - Aero Commander Turbo 680	1	1	2	4	4	4	4
858	Jul-16	Domestic	General Aviation	Turbine	AC90 - Gulfstream Commander	1	1	2	4	4	4	4
859	Jul-16	Domestic	General Aviation	Turbine	B350 - Beech Super King Air 350	56	55	111	336	6	330	6
860	Jul-16	Domestic	General Aviation	Turbine	BE20 - Beech 200 Super King	26	26	52	130	5	130	5
861	Jul-16	Domestic	General Aviation	Turbine	BE30 - Raytheon 300 Super King Air	5	5	10	40	8	40	8
862	Jul-16	Domestic	General Aviation	Turbine	BE9L - Beech King Air 90	22	18	40	132	6	108	6
863	Jul-16	Domestic	General Aviation	Turbine	BE9T - Beech F90 King Air	1	1	2	4	4	4	4
864	Jul-16	Domestic	General Aviation	Turbine	C208 - Cessna 208 Caravan	4	4	8	56	14	56	14

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#	Date	Flight Type	User Class	Physical Class	Aircraft	Departures	Arrivals	Total Operations	Departure Seats	Average Departure	Arrival Seats	Average Arrival
865	Jul-16	Domestic	General Aviation	Turbine	C425 - Cessna 425 Corsair	4	3	7	16	4	12	4
866	Jul-16	Domestic	General Aviation	Turbine	C441 - Cessna Conquest	3	6	9	18	6	36	6
867	Jul-16	Domestic	General Aviation	Turbine	MU2 - Mitsubishi Marquise/Solitaire	1	1	2	6	6	6	6
868	Jul-16	Domestic	General Aviation	Turbine	P46T - Piper Malibu Meridian	7	4	11	42	6	24	6
869	Jul-16	Domestic	General Aviation	Turbine	PAY2 - Piper Cheyenne 2	1	0	1	6	6	0	0
870	Jul-16	Domestic	General Aviation	Turbine	PC12 - Pilatus PC-12	31	31	62	279	9	279	9
871	Jul-16	Domestic	General Aviation	Turbine	STAR - Beech 2000 Starship	1	1	2	8	8	8	8
872	Jul-16	Domestic	General Aviation	Turbine	TBM7 - Socata TBM-7	6	8	14	24	4	32	4
873	Jul-16	Domestic	General Aviation	Turbine	TBM8 - Socata TBM-850	5	8	13	0	0	0	0
874	Jul-16	Domestic	Military	-	-1 - unknown	0	1	1	0	0	0	0
875	Jul-16	Domestic	Military	-	NAV1 - North American NA-145	1	0	1	4	4	0	0
876	Jul-16	Domestic	Military	Piston	C172 - Cessna Skyhawk 172/Cutlass	3	0	3	12	4	0	0
877	Jul-16	Domestic	Military	Piston	C182 - Cessna Skylane 182	1	0	1	4	4	0	0
878	Jul-16	Domestic	Military	Piston	C210 - Cessna 210 Centurion	1	0	1	6	6	0	0
879	Jul-16	Domestic	Military	Piston	DA42 - Diamond Twin Star	2	2	4	0	0	0	0
880	Jul-16	Domestic	Military	Piston	M20P - Mooney M-20C Ranger	2	0	2	8	4	0	0
881	Jul-16	Domestic	Military	Piston	P28A - Piper Cherokee	4	2	6	16	4	8	4
882	Jul-16	Domestic	Military	Piston	SR20 - Cirrus SR-20	1	0	1	4	4	0	0
883	Jul-16	Domestic	Military	Piston	SR22 - Cirrus SR 22	3	0	3	12	4	0	0
884	Jul-16	Domestic	Military	Turbine	B350 - Beech Super King Air 350	4	2	6	24	6	12	6
885	Jul-16	Domestic	Military	Turbine	BE20 - Beech 200 Super King	2	3	5	10	5	15	5
886	Jul-16	Domestic	Military	Turbine	BE30 - Raytheon 300 Super King Air	3	2	5	24	8	16	8
887	Jul-16	Domestic	Military	Turbine	EC35 - Eurocopter EC-135	2	1	3	14	7	7	7
888	Jul-16	Domestic	Military	Turbine	EC45 - Eurocopter EC-145	1	0	1	10	10	0	0
889	Jul-16	Domestic	Other	Jet	C525 - Cessna CitationJet/CJ1	4	1	5	20	5	5	5
890	Jul-16	Domestic	Other	Jet	C560 - Cessna Citation V/Ultra/Encore	1	2	3	8	8	16	8
891	Jul-16	Domestic	Other	Jet	EA50 - Eclipse 500	1	0	1	0	0	0	0
892	Jul-16	Domestic	Other	Jet	LJ35 - Bombardier Learjet 35/36	5	0	5	40	8	0	0
893	Jul-16	Domestic	Other	Piston	-1 - unknown	0	2	2	0	0	0	0
894	Jul-16	Domestic	Other	Piston	C172 - Cessna Skyhawk 172/Cutlass	1	1	2	4	4	4	4
895	Jul-16	Domestic	Other	Piston	C421 - Cessna Golden Eagle 421	3	5	8	24	8	40	8
896	Jul-16	Domestic	Other	Turbine	BE20 - Beech 200 Super King	3	4	7	15	5	20	5
897	Jul-16	Domestic	Other	Turbine	BE9L - Beech King Air 90	0	2	2	0	0	12	6
898	Jul-16	Domestic	Air Taxi	Jet	C56X - Cessna Excel/XLS	2	2	4	30	15	30	15
899	Jul-16	Domestic	Air Taxi	Jet	CL30 - Bombardier (Canadair) Challenger 300	1	1	2	8	8	8	8
900	Aug-16	US to Foreign	General Aviation	Piston	BE58 - Beech 58	1	0	1	4	4	0	0
901	Aug-16	US to Foreign	General Aviation	Piston	C206 - Cessna 206 Stationair	1	0	1	4	4	0	0
902	Aug-16	US to Foreign	Military	Piston	SR22 - Cirrus SR 22	2	0	2	8	4	0	0
903	Aug-16	US to Foreign	Other	Jet	C750 - Cessna Citation X	1	0	1	14	14	0	0
904	Aug-16	US to Foreign	Other	Turbine	TBM8 - Socata TBM-850	1	0	1	0	0	0	0
905	Aug-16	Domestic	Air Carrier	Jet	C560 - Cessna Citation V/Ultra/Encore	1	1	2	8	8	8	8
906	Aug-16	Domestic	Air Carrier	Jet	CL30 - Bombardier (Canadair) Challenger 300	1	1	2	8	8	8	8
907	Aug-16	Domestic	Air Carrier	Jet	E50P - Embraer Phenom 100	3	2	5	18	6	12	6
908	Aug-16	Domestic	Air Carrier	Jet	EA50 - Eclipse 500	0	1	1	0	0	6	6
909	Aug-16	Domestic	Air Carrier	Piston	BE36 - Beech Bonanza 36	1	0	1	4	4	0	0
910	Aug-16	Domestic	Air Carrier	Piston	C182 - Cessna Skylane 182	0	1	1	0	0	4	4
911	Aug-16	Domestic	Air Carrier	Piston	C210 - Cessna 210 Centurion	0	1	1	0	0	6	6
912	Aug-16	Domestic	Air Carrier	Piston	C340 - Cessna 340	1	0	1	6	6	0	0
913	Aug-16	Domestic	Air Carrier	Piston	C82R - Cessna Skylane RG	0	1	1	0	0	4	4
914	Aug-16	Domestic	Air Carrier	Piston	DA42 - Diamond Twin Star	0	1	1	0	0	4	4
915	Aug-16	Domestic	Air Carrier	Piston	P28A - Piper Cherokee	1	0	1	4	4	0	0
916	Aug-16	Domestic	Air Carrier	Piston	SR20 - Cirrus SR-20	1	1	2	4	4	4	4
917	Aug-16	Domestic	Air Carrier	Piston	SR22 - Cirrus SR 22	4	4	8	16	4	16	4
918	Aug-16	Domestic	Air Carrier	Turbine	B350 - Beech Super King Air 350	6	5	11	36	6	30	6

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919	Aug-16	Domestic	Air Carrier	Turbine	BE10 - Beech King Air 100 A/B	3	3	6	12	4	12	4
920	Aug-16	Domestic	Air Carrier	Turbine	BE20 - Beech 200 Super King	9	8	17	45	5	40	5
921	Aug-16	Domestic	Air Carrier	Turbine	EC35 - Eurocopter EC-135	2	1	3	14	7	7	7
922	Aug-16	Domestic	Air Carrier	Turbine	TBM7 - Socata TBM-7	2	2	4	8	4	8	4
923	Aug-16	Domestic	Freight	Piston	BE99 - Beech Airliner 99	4	4	8	0	0	0	0
924	Aug-16	Domestic	General Aviation	-	-1 - unknown	5	2	7	0	0	0	0
925	Aug-16	Domestic	General Aviation	-	LF35 - unknown	0	1	1	0	0	0	0
926	Aug-16	Domestic	General Aviation	-	M20K - Mooney M-20	1	0	1	4	4	0	0
927	Aug-16	Domestic	General Aviation	-	P29A - unknown	1	0	1	4	4	0	0
928	Aug-16	Domestic	General Aviation	-	R44 - Robinson R-44 Raven	1	0	1	4	4	0	0
929	Aug-16	Domestic	General Aviation	Jet	C25A - Cessna Citation CJ2	4	5	9	32	8	40	8
930	Aug-16	Domestic	General Aviation	Jet	C25B - Cessna Citation CJ3	9	10	19	45	5	50	5
931	Aug-16	Domestic	General Aviation	Jet	C25C - Cessna Citation CJ4	6	6	12	0	0	0	0
932	Aug-16	Domestic	General Aviation	Jet	C500 - Cessna 500/Citation I	0	1	1	0	0	6	6
933	Aug-16	Domestic	General Aviation	Jet	C501 - Cessna I/SP	3	4	7	18	6	24	6
934	Aug-16	Domestic	General Aviation	Jet	C510 - Cessna Citation Mustang	10	12	22	60	6	72	6
935	Aug-16	Domestic	General Aviation	Jet	C525 - Cessna CitationJet/CJ1	10	11	21	50	5	55	5
936	Aug-16	Domestic	General Aviation	Jet	C550 - Cessna Citation II/Bravo	18	18	36	180	10	180	10
937	Aug-16	Domestic	General Aviation	Jet	C551 - Cessna Citation II/SP	1	0	1	6	6	0	0
938	Aug-16	Domestic	General Aviation	Jet	C560 - Cessna Citation V/Ultra/Encore	1	1	2	8	8	8	8
939	Aug-16	Domestic	General Aviation	Jet	C56X - Cessna Excel/XLS	4	4	8	60	15	60	15
940	Aug-16	Domestic	General Aviation	Jet	C680 - Cessna Citation Sovereign	1	1	2	12	12	12	12
941	Aug-16	Domestic	General Aviation	Jet	CL60 - Bombardier Challenger 600/601/604	0	1	1	0	0	15	15
942	Aug-16	Domestic	General Aviation	Jet	EA50 - Eclipse 500	26	28	54	0	0	0	0
943	Aug-16	Domestic	General Aviation	Jet	FA10 - Dassault Falcon/Mystère 10	0	1	1	0	0	4	4
944	Aug-16	Domestic	General Aviation	Jet	HDJT - HONDA HA-420 HondaJet	5	3	8	0	0	0	0
945	Aug-16	Domestic	General Aviation	Jet	LJ31 - Bombardier Learjet 31/A/B	0	1	1	0	0	8	8
946	Aug-16	Domestic	General Aviation	Jet	LJ35 - Bombardier Learjet 35/36	2	4	6	16	8	32	8
947	Aug-16	Domestic	General Aviation	Jet	LJ45 - Bombardier Learjet 45	1	1	2	10	10	10	10
948	Aug-16	Domestic	General Aviation	Jet	PRM1 - Raytheon Premier 1/390 Premier 1	7	8	15	42	6	48	6
949	Aug-16	Domestic	General Aviation	Jet	SBR1 - North American Rockwell Sabre 40/60	1	1	2	5	5	5	5
950	Aug-16	Domestic	General Aviation	Piston	AA5 - American AA-5 Traveler	6	3	9	18	3	9	3
951	Aug-16	Domestic	General Aviation	Piston	AC11 - North American Commander 112	1	1	2	4	4	4	4
952	Aug-16	Domestic	General Aviation	Piston	BE33 - Beech Bonanza 33	7	5	12	35	5	25	5
953	Aug-16	Domestic	General Aviation	Piston	BE35 - Beech Bonanza 35	18	11	29	72	4	44	4
954	Aug-16	Domestic	General Aviation	Piston	BE36 - Beech Bonanza 36	7	8	15	28	4	32	4
955	Aug-16	Domestic	General Aviation	Piston	BE55 - Beech Baron 55	0	3	3	0	0	18	6
956	Aug-16	Domestic	General Aviation	Piston	BE58 - Beech 58	15	13	28	60	4	52	4
957	Aug-16	Domestic	General Aviation	Piston	BE60 - Beech 60 Duke	2	2	4	12	6	12	6
958	Aug-16	Domestic	General Aviation	Piston	BE76 - Beech 76 Duchess	1	2	3	4	4	8	4
959	Aug-16	Domestic	General Aviation	Piston	BT36 - unknown	0	1	1	0	0	0	0
960	Aug-16	Domestic	General Aviation	Piston	C172 - Cessna Skyhawk 172/Cutlass	99	79	178	396	4	316	4
961	Aug-16	Domestic	General Aviation	Piston	C177 - Cessna 177 Cardinal	1	1	2	4	4	4	4
962	Aug-16	Domestic	General Aviation	Piston	C180 - Cessna 180	1	1	2	4	4	4	4
963	Aug-16	Domestic	General Aviation	Piston	C182 - Cessna Skylane 182	26	20	46	104	4	80	4
964	Aug-16	Domestic	General Aviation	Piston	C185 - Cessna Skywagon 185	0	1	1	0	0	6	6
965	Aug-16	Domestic	General Aviation	Piston	C206 - Cessna 206 Stationair	2	3	5	8	4	12	4
966	Aug-16	Domestic	General Aviation	Piston	C210 - Cessna 210 Centurion	16	12	28	96	6	72	6
967	Aug-16	Domestic	General Aviation	Piston	C340 - Cessna 340	3	3	6	18	6	18	6
968	Aug-16	Domestic	General Aviation	Piston	C414 - Cessna Chancellor 414	5	3	8	30	6	18	6
969	Aug-16	Domestic	General Aviation	Piston	C421 - Cessna Golden Eagle 421	8	6	14	64	8	48	8
970	Aug-16	Domestic	General Aviation	Piston	C72R - Cessna Cutlass RG	1	0	1	4	4	0	0
971	Aug-16	Domestic	General Aviation	Piston	C77R - Cessna Cardinal RG	1	0	1	4	4	0	0
972	Aug-16	Domestic	General Aviation	Piston	C82R - Cessna Skylane RG	9	8	17	36	4	32	4

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973	Aug-16	Domestic	General Aviation	Piston	COL3 - Lancair LC-40 Columbia 400	0	1	1	0	0	4	4
974	Aug-16	Domestic	General Aviation	Piston	COL4 - Lancair LC-41 Columbia 400	7	8	15	28	4	32	4
975	Aug-16	Domestic	General Aviation	Piston	DA40 - Diamond Star DA40	7	7	14	42	6	42	6
976	Aug-16	Domestic	General Aviation	Piston	DA42 - Diamond Twin Star	3	3	6	0	0	0	0
977	Aug-16	Domestic	General Aviation	Piston	LEG2 - Lancair Legacy 2000	0	1	1	0	0	2	2
978	Aug-16	Domestic	General Aviation	Piston	LNC2 - Lancair 360	2	0	2	8	4	0	0
979	Aug-16	Domestic	General Aviation	Piston	LNC4 - Lancair 4	1	1	2	4	4	4	4
980	Aug-16	Domestic	General Aviation	Piston	M020 - Mark 20, MO20	0	1	1	0	0	6	6
981	Aug-16	Domestic	General Aviation	Piston	M20P - Mooney M-20C Ranger	9	7	16	36	4	28	4
982	Aug-16	Domestic	General Aviation	Piston	M20T - Turbo Mooney M20K	5	1	6	20	4	4	4
983	Aug-16	Domestic	General Aviation	Piston	M7 - Maule M-7-235 Orion	0	1	1	0	0	5	5
984	Aug-16	Domestic	General Aviation	Piston	MO20 - Mooney M-20	0	1	1	0	0	4	4
985	Aug-16	Domestic	General Aviation	Piston	P210 - Riley Super P210	5	6	11	30	6	36	6
986	Aug-16	Domestic	General Aviation	Piston	P28A - Piper Cherokee	51	29	80	204	4	116	4
987	Aug-16	Domestic	General Aviation	Piston	P32R - Piper 32	1	1	2	4	4	4	4
988	Aug-16	Domestic	General Aviation	Piston	P337 - Cessna T337G Pressurized Skymaster	1	1	2	6	6	6	6
989	Aug-16	Domestic	General Aviation	Piston	P68 - Partenavia P68 Victor	0	1	1	0	0	6	6
990	Aug-16	Domestic	General Aviation	Piston	PA24 - Piper PA-24	2	0	2	10	5	0	0
991	Aug-16	Domestic	General Aviation	Piston	PA27 - Piper Aztec	1	2	3	4	4	8	4
992	Aug-16	Domestic	General Aviation	Piston	PA28 - Piper Cherokee	0	9	9	0	0	252	28
993	Aug-16	Domestic	General Aviation	Piston	PA29 - unknown	0	1	1	0	0	4	4
994	Aug-16	Domestic	General Aviation	Piston	PA31 - Piper Navajo PA-31	1	1	2	8	8	8	8
995	Aug-16	Domestic	General Aviation	Piston	PA32 - Piper Cherokee Six	8	6	14	48	6	36	6
996	Aug-16	Domestic	General Aviation	Piston	PA34 - Piper PA-34 Seneca	5	2	7	30	6	12	6
997	Aug-16	Domestic	General Aviation	Piston	PA44 - Piper Seminole	11	5	16	44	4	20	4
998	Aug-16	Domestic	General Aviation	Piston	PA46 - Piper Malibu	1	3	4	6	6	18	6
999	Aug-16	Domestic	General Aviation	Piston	RV10 - Experimental	2	0	2	0	0	0	0
1000	Aug-16	Domestic	General Aviation	Piston	RV4 - Experimental	1	0	1	2	2	0	0
1001	Aug-16	Domestic	General Aviation	Piston	RV7 - Experimental RV-7	2	1	3	4	2	2	2
1002	Aug-16	Domestic	General Aviation	Piston	S22T - Cirrus SR-22 Turbo	1	2	3	0	0	0	0
1003	Aug-16	Domestic	General Aviation	Piston	SR20 - Cirrus SR-20	2	0	2	8	4	0	0
1004	Aug-16	Domestic	General Aviation	Piston	SR22 - Cirrus SR 22	44	29	73	176	4	116	4
1005	Aug-16	Domestic	General Aviation	Turbine	AC90 - Gulfstream Commander	1	1	2	4	4	4	4
1006	Aug-16	Domestic	General Aviation	Turbine	B190 - Beech 1900/C-12J	2	2	4	38	19	38	19
1007	Aug-16	Domestic	General Aviation	Turbine	B350 - Beech Super King Air 350	63	60	123	378	6	360	6
1008	Aug-16	Domestic	General Aviation	Turbine	B36T - Allison 36 Turbine Bonanza	0	1	1	0	0	6	6
1009	Aug-16	Domestic	General Aviation	Turbine	BE10 - Beech King Air 100 A/B	0	1	1	0	0	4	4
1010	Aug-16	Domestic	General Aviation	Turbine	BE20 - Beech 200 Super King	36	35	71	180	5	175	5
1011	Aug-16	Domestic	General Aviation	Turbine	BE30 - Raytheon 300 Super King Air	0	1	1	0	0	8	8
1012	Aug-16	Domestic	General Aviation	Turbine	BE9L - Beech King Air 90	16	15	31	96	6	90	6
1013	Aug-16	Domestic	General Aviation	Turbine	BE9T - Beech F90 King Air	1	1	2	4	4	4	4
1014	Aug-16	Domestic	General Aviation	Turbine	C208 - Cessna 208 Caravan	2	2	4	28	14	28	14
1015	Aug-16	Domestic	General Aviation	Turbine	C425 - Cessna 425 Corsair	3	3	6	12	4	12	4
1016	Aug-16	Domestic	General Aviation	Turbine	C441 - Cessna Conquest	8	5	13	48	6	30	6
1017	Aug-16	Domestic	General Aviation	Turbine	EC35 - Eurocopter EC-135	2	0	2	14	7	0	0
1018	Aug-16	Domestic	General Aviation	Turbine	EPIC - Dynasty	1	1	2	0	0	0	0
1019	Aug-16	Domestic	General Aviation	Turbine	MU2 - Mitsubishi Marquise/Solitaire	2	2	4	12	6	12	6
1020	Aug-16	Domestic	General Aviation	Turbine	P46T - Piper Malibu Meridian	6	6	12	36	6	36	6
1021	Aug-16	Domestic	General Aviation	Turbine	PAY1 - Piper Cheyenne 1	1	1	2	4	4	4	4
1022	Aug-16	Domestic	General Aviation	Turbine	PAY2 - Piper Cheyenne 2	1	1	2	6	6	6	6
1023	Aug-16	Domestic	General Aviation	Turbine	PC12 - Pilatus PC-12	16	17	33	144	9	153	9
1024	Aug-16	Domestic	General Aviation	Turbine	TBM7 - Socata TBM-7	13	12	25	52	4	48	4
1025	Aug-16	Domestic	General Aviation	Turbine	TBM8 - Socata TBM-850	9	8	17	0	0	0	0
1026	Aug-16	Domestic	General Aviation	Turbine	TBM9 - Socata TBM	1	1	2	0	0	0	0

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1027	Aug-16	Domestic	Military	-	-1 - unknown	0	1	1	0	0	0	0
1028	Aug-16	Domestic	Military	-	H60 - Sikorsky SH-60 Seahawk	2	4	6	8	4	16	4
1029	Aug-16	Domestic	Military	Piston	BE33 - Beech Bonanza 33	1	0	1	5	5	0	0
1030	Aug-16	Domestic	Military	Piston	BE36 - Beech Bonanza 36	1	0	1	4	4	0	0
1031	Aug-16	Domestic	Military	Piston	C172 - Cessna Skyhawk 172/Cutlass	4	0	4	16	4	0	0
1032	Aug-16	Domestic	Military	Piston	C182 - Cessna Skylane 182	3	0	3	12	4	0	0
1033	Aug-16	Domestic	Military	Piston	C210 - Cessna 210 Centurion	1	0	1	6	6	0	0
1034	Aug-16	Domestic	Military	Piston	DA42 - Diamond Twin Star	1	1	2	0	0	0	0
1035	Aug-16	Domestic	Military	Piston	M20P - Mooney M-20C Ranger	1	0	1	4	4	0	0
1036	Aug-16	Domestic	Military	Piston	M20T - Turbo Mooney M20K	1	0	1	4	4	0	0
1037	Aug-16	Domestic	Military	Piston	P28A - Piper Cherokee	1	2	3	4	4	8	4
1038	Aug-16	Domestic	Military	Piston	SR20 - Cirrus SR-20	1	0	1	4	4	0	0
1039	Aug-16	Domestic	Military	Turbine	BE20 - Beech 200 Super King	2	1	3	10	5	5	5
1040	Aug-16	Domestic	Military	Turbine	BE30 - Raytheon 300 Super King Air	1	0	1	8	8	0	0
1041	Aug-16	Domestic	Other	-	-1 - unknown	0	1	1	0	0	0	0
1042	Aug-16	Domestic	Other	Jet	C25C - Cessna Citation CJ4	1	0	1	0	0	0	0
1043	Aug-16	Domestic	Other	Jet	C525 - Cessna CitationJet/CJ1	2	1	3	10	5	5	5
1044	Aug-16	Domestic	Other	Jet	C560 - Cessna Citation V/Ultra/Encore	2	2	4	16	8	16	8
1045	Aug-16	Domestic	Other	Jet	C750 - Cessna Citation X	0	1	1	0	0	14	14
1046	Aug-16	Domestic	Other	Jet	LJ35 - Bombardier Learjet 35/36	4	2	6	32	8	16	8
1047	Aug-16	Domestic	Other	Piston	-1 - unknown	1	1	2	1	1	0	0
1048	Aug-16	Domestic	Other	Piston	C421 - Cessna Golden Eagle 421	6	12	18	48	8	96	8
1049	Aug-16	Domestic	Other	Turbine	BE20 - Beech 200 Super King	1	2	3	5	5	10	5
1050	Aug-16	Domestic	Other	Turbine	BE9L - Beech King Air 90	1	3	4	6	6	18	6
1051	Aug-16	Domestic	Other	Turbine	TBM8 - Socata TBM-850	1	2	3	0	0	0	0
1052	Aug-16	Domestic	Air Taxi	Jet	C56X - Cessna Excel/XLS	0	1	1	0	0	15	15
1053	Sep-16	US to Foreign	General Aviation	Jet	C25B - Cessna Citation CJ3	1	0	1	5	5	0	0
1054	Sep-16	US to Foreign	General Aviation	Jet	CL60 - Bombardier Challenger 600/601/604	1	0	1	15	15	0	0
1055	Sep-16	US to Foreign	General Aviation	Piston	C206 - Cessna 206 Stationair	1	0	1	4	4	0	0
1056	Sep-16	US to Foreign	General Aviation	Turbine	PC12 - Pilatus PC-12	1	0	1	9	9	0	0
1057	Sep-16	US to Foreign	Military	Piston	C206 - Cessna 206 Stationair	1	0	1	4	4	0	0
1058	Sep-16	US to Foreign	Military	Piston	C210 - Cessna 210 Centurion	1	0	1	6	6	0	0
1059	Sep-16	US to Foreign	Military	Piston	P28A - Piper Cherokee	1	0	1	4	4	0	0
1060	Sep-16	Domestic	Air Carrier	-	-1 - unknown	1	1	2	0	0	0	0
1061	Sep-16	Domestic	Air Carrier	Jet	C25B - Cessna Citation CJ3	1	0	1	5	5	0	0
1062	Sep-16	Domestic	Air Carrier	Jet	C56X - Cessna Excel/XLS	1	1	2	15	15	15	15
1063	Sep-16	Domestic	Air Carrier	Jet	EA50 - Eclipse 500	2	1	3	12	6	6	6
1064	Sep-16	Domestic	Air Carrier	Piston	C206 - Cessna 206 Stationair	0	1	1	0	0	4	4
1065	Sep-16	Domestic	Air Carrier	Piston	SR22 - Cirrus SR 22	3	1	4	12	4	4	4
1066	Sep-16	Domestic	Air Carrier	Turbine	B350 - Beech Super King Air 350	3	3	6	18	6	18	6
1067	Sep-16	Domestic	Air Carrier	Turbine	BE10 - Beech King Air 100 A/B	2	2	4	8	4	8	4
1068	Sep-16	Domestic	Air Carrier	Turbine	BE20 - Beech 200 Super King	13	9	22	65	5	45	5
1069	Sep-16	Domestic	Air Carrier	Turbine	BE9L - Beech King Air 90	1	1	2	6	6	6	6
1070	Sep-16	Domestic	Air Carrier	Turbine	EC35 - Eurocopter EC-135	4	2	6	28	7	14	7
1071	Sep-16	Domestic	Freight	Piston	BE99 - Beech Airliner 99	3	3	6	0	0	0	0
1072	Sep-16	Domestic	General Aviation	-	-1 - unknown	2	3	5	0	0	0	0
1073	Sep-16	Domestic	General Aviation	Jet	C25A - Cessna Citation CJ2	3	3	6	24	8	24	8
1074	Sep-16	Domestic	General Aviation	Jet	C25B - Cessna Citation CJ3	12	15	27	60	5	75	5
1075	Sep-16	Domestic	General Aviation	Jet	C25C - Cessna Citation CJ4	4	4	8	0	0	0	0
1076	Sep-16	Domestic	General Aviation	Jet	C501 - Cessna I/SP	3	3	6	18	6	18	6
1077	Sep-16	Domestic	General Aviation	Jet	C510 - Cessna Citation Mustang	10	12	22	60	6	72	6
1078	Sep-16	Domestic	General Aviation	Jet	C525 - Cessna CitationJet/CJ1	16	16	32	80	5	80	5
1079	Sep-16	Domestic	General Aviation	Jet	C550 - Cessna Citation II/Bravo	15	14	29	150	10	140	10
1080	Sep-16	Domestic	General Aviation	Jet	C560 - Cessna Citation V/Ultra/Encore	6	6	12	48	8	48	8

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#	Date	Flight Type	User Class	Physical Class	Aircraft	Departures	Arrivals	Total Operations	Departure Seats	Average Departure	Arrival Seats	Average Arrival
1081	Sep-16	Domestic	General Aviation	Jet	C56X - Cessna Excel/XLS	3	2	5	45	15	30	15
1082	Sep-16	Domestic	General Aviation	Jet	C650 - Cessna III/VI/VII	1	1	2	6	6	6	6
1083	Sep-16	Domestic	General Aviation	Jet	CL30 - Bombardier (Canadair) Challenger 300	0	1	1	0	0	8	8
1084	Sep-16	Domestic	General Aviation	Jet	E50P - Embraer Phenom 100	1	2	3	6	6	12	6
1085	Sep-16	Domestic	General Aviation	Jet	E55P - Embraer Phenom 300	4	4	8	32	8	32	8
1086	Sep-16	Domestic	General Aviation	Jet	EA50 - Eclipse 500	22	21	43	0	0	0	0
1087	Sep-16	Domestic	General Aviation	Jet	FA10 - Dassault Falcon/Mystère 10	3	3	6	12	4	12	4
1088	Sep-16	Domestic	General Aviation	Jet	HDJT - HONDA HA-420 HondaJet	2	2	4	0	0	0	0
1089	Sep-16	Domestic	General Aviation	Jet	LJ31 - Bombardier Learjet 31/A/B	0	1	1	0	0	8	8
1090	Sep-16	Domestic	General Aviation	Jet	LJ35 - Bombardier Learjet 35/36	4	4	8	32	8	32	8
1091	Sep-16	Domestic	General Aviation	Jet	PRM1 - Raytheon Premier 1/390 Premier 1	7	6	13	42	6	36	6
1092	Sep-16	Domestic	General Aviation	Piston	AC95 - Gulfstream Jetprop Commander 1000	1	0	1	6	6	0	0
1093	Sep-16	Domestic	General Aviation	Piston	AEST - Piper Aero Star	1	1	2	4	4	4	4
1094	Sep-16	Domestic	General Aviation	Piston	BE33 - Beech Bonanza 33	9	8	17	45	5	40	5
1095	Sep-16	Domestic	General Aviation	Piston	BE35 - Beech Bonanza 35	16	9	25	64	4	36	4
1096	Sep-16	Domestic	General Aviation	Piston	BE36 - Beech Bonanza 36	11	10	21	44	4	40	4
1097	Sep-16	Domestic	General Aviation	Piston	BE55 - Beech Baron 55	3	2	5	18	6	12	6
1098	Sep-16	Domestic	General Aviation	Piston	BE58 - Beech 58	11	13	24	44	4	52	4
1099	Sep-16	Domestic	General Aviation	Piston	BE60 - Beech 60 Duke	1	1	2	6	6	6	6
1100	Sep-16	Domestic	General Aviation	Piston	BE76 - Beech 76 Duchess	3	1	4	12	4	4	4
1101	Sep-16	Domestic	General Aviation	Piston	C170 - Cessna 170	1	0	1	4	4	0	0
1102	Sep-16	Domestic	General Aviation	Piston	C172 - Cessna Skyhawk 172/Cutlass	51	45	96	204	4	180	4
1103	Sep-16	Domestic	General Aviation	Piston	C177 - Cessna 177 Cardinal	1	0	1	4	4	0	0
1104	Sep-16	Domestic	General Aviation	Piston	C180 - Cessna 180	4	5	9	16	4	20	4
1105	Sep-16	Domestic	General Aviation	Piston	C182 - Cessna Skylane 182	20	16	36	80	4	64	4
1106	Sep-16	Domestic	General Aviation	Piston	C205 - Cessna 205	1	1	2	6	6	6	6
1107	Sep-16	Domestic	General Aviation	Piston	C206 - Cessna 206 Stationair	2	3	5	8	4	12	4
1108	Sep-16	Domestic	General Aviation	Piston	C210 - Cessna 210 Centurion	9	10	19	54	6	60	6
1109	Sep-16	Domestic	General Aviation	Piston	C310 - Cessna 310	2	2	4	12	6	12	6
1110	Sep-16	Domestic	General Aviation	Piston	C340 - Cessna 340	4	5	9	24	6	30	6
1111	Sep-16	Domestic	General Aviation	Piston	C414 - Cessna Chancellor 414	4	4	8	24	6	24	6
1112	Sep-16	Domestic	General Aviation	Piston	C421 - Cessna Golden Eagle 421	10	10	20	80	8	80	8
1113	Sep-16	Domestic	General Aviation	Piston	C82R - Cessna Skylane RG	8	7	15	32	4	28	4
1114	Sep-16	Domestic	General Aviation	Piston	C82S - unknown	0	1	1	0	0	0	0
1115	Sep-16	Domestic	General Aviation	Piston	CH7B - Bellanca 7GCBC Citabria	0	1	1	0	0	4	4
1116	Sep-16	Domestic	General Aviation	Piston	COL3 - Lancair LC-40 Columbia 400	1	0	1	4	4	0	0
1117	Sep-16	Domestic	General Aviation	Piston	COL4 - Lancair LC-41 Columbia 400	7	7	14	28	4	28	4
1118	Sep-16	Domestic	General Aviation	Piston	DA40 - Diamond Star DA40	7	6	13	42	6	36	6
1119	Sep-16	Domestic	General Aviation	Piston	DA42 - Diamond Twin Star	5	4	9	0	0	0	0
1120	Sep-16	Domestic	General Aviation	Piston	GLSP - F-GLSP	0	1	1	0	0	0	0
1121	Sep-16	Domestic	General Aviation	Piston	LNC2 - Lancair 360	1	0	1	4	4	0	0
1122	Sep-16	Domestic	General Aviation	Piston	M20 - Mooney M-20C Ranger	0	1	1	0	0	4	4
1123	Sep-16	Domestic	General Aviation	Piston	M20P - Mooney M-20C Ranger	3	5	8	12	4	20	4
1124	Sep-16	Domestic	General Aviation	Piston	M20T - Turbo Mooney M20K	2	4	6	8	4	16	4
1125	Sep-16	Domestic	General Aviation	Piston	MO20 - Mooney M-20	0	1	1	0	0	4	4
1126	Sep-16	Domestic	General Aviation	Piston	P210 - Riley Super P210	7	8	15	42	6	48	6
1127	Sep-16	Domestic	General Aviation	Piston	P28A - Piper Cherokee	12	10	22	48	4	40	4
1128	Sep-16	Domestic	General Aviation	Piston	P28R - Cherokee Arrow/Turbo	1	1	2	4	4	4	4
1129	Sep-16	Domestic	General Aviation	Piston	PA24 - Piper PA-24	2	3	5	10	5	15	5
1130	Sep-16	Domestic	General Aviation	Piston	PA28 - Piper Cherokee	0	1	1	0	0	28	28
1131	Sep-16	Domestic	General Aviation	Piston	PA30 - Piper PA-30	3	3	6	18	6	18	6
1132	Sep-16	Domestic	General Aviation	Piston	PA32 - Piper Cherokee Six	4	4	8	24	6	24	6
1133	Sep-16	Domestic	General Aviation	Piston	PA44 - Piper Seminole	16	12	28	64	4	48	4
1134	Sep-16	Domestic	General Aviation	Piston	PA46 - Piper Malibu	10	5	15	60	6	30	6

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1135	Sep-16	Domestic	General Aviation	Piston	RV7 - Experimental RV-7	1	0	1	2	2	0	0
1136	Sep-16	Domestic	General Aviation	Piston	S22T - Cirrus SR-22 Turbo	2	1	3	0	0	0	0
1137	Sep-16	Domestic	General Aviation	Piston	SR20 - Cirrus SR-20	2	2	4	8	4	8	4
1138	Sep-16	Domestic	General Aviation	Piston	SR22 - Cirrus SR 22	38	23	61	152	4	92	4
1139	Sep-16	Domestic	General Aviation	Piston	T206 - Cessna T-206	2	0	2	12	6	0	0
1140	Sep-16	Domestic	General Aviation	Turbine	AC90 - Gulfstream Commander	1	1	2	4	4	4	4
1141	Sep-16	Domestic	General Aviation	Turbine	B350 - Beech Super King Air 350	56	55	111	336	6	330	6
1142	Sep-16	Domestic	General Aviation	Turbine	BE10 - Beech King Air 100 A/B	0	2	2	0	0	8	4
1143	Sep-16	Domestic	General Aviation	Turbine	BE20 - Beech 200 Super King	23	25	48	115	5	125	5
1144	Sep-16	Domestic	General Aviation	Turbine	BE9L - Beech King Air 90	7	5	12	42	6	30	6
1145	Sep-16	Domestic	General Aviation	Turbine	BE9T - Beech F90 King Air	3	3	6	12	4	12	4
1146	Sep-16	Domestic	General Aviation	Turbine	C208 - Cessna 208 Caravan	1	0	1	14	14	0	0
1147	Sep-16	Domestic	General Aviation	Turbine	C425 - Cessna 425 Corsair	6	6	12	24	4	24	4
1148	Sep-16	Domestic	General Aviation	Turbine	C441 - Cessna Conquest	4	2	6	24	6	12	6
1149	Sep-16	Domestic	General Aviation	Turbine	EVOT - Lancair Evolution Turbine	1	1	2	0	0	0	0
1150	Sep-16	Domestic	General Aviation	Turbine	MU2 - Mitsubishi Marquise/Solitaire	1	1	2	6	6	6	6
1151	Sep-16	Domestic	General Aviation	Turbine	P180 - Piaggio P-180 Avanti	2	2	4	18	9	18	9
1152	Sep-16	Domestic	General Aviation	Turbine	P46T - Piper Malibu Meridian	6	6	12	36	6	36	6
1153	Sep-16	Domestic	General Aviation	Turbine	PAY2 - Piper Cheyenne 2	1	1	2	6	6	6	6
1154	Sep-16	Domestic	General Aviation	Turbine	PC12 - Pilatus PC-12	24	25	49	216	9	225	9
1155	Sep-16	Domestic	General Aviation	Turbine	TBM7 - Socata TBM-7	9	9	18	36	4	36	4
1156	Sep-16	Domestic	General Aviation	Turbine	TBM8 - Socata TBM-850	5	5	10	0	0	0	0
1157	Sep-16	Domestic	General Aviation	Turbine	TBM9 - Socata TBM	1	0	1	0	0	0	0
1158	Sep-16	Domestic	Military	-	H60 - Sikorsky SH-60 Seahawk	1	1	2	4	4	4	4
1159	Sep-16	Domestic	Military	Piston	BE36 - Beech Bonanza 36	1	0	1	4	4	0	0
1160	Sep-16	Domestic	Military	Piston	BE55 - Beech Baron 55	1	0	1	6	6	0	0
1161	Sep-16	Domestic	Military	Piston	BE76 - Beech 76 Duchess	1	0	1	4	4	0	0
1162	Sep-16	Domestic	Military	Piston	C172 - Cessna Skyhawk 172/Cutlass	3	0	3	12	4	0	0
1163	Sep-16	Domestic	Military	Piston	DA42 - Diamond Twin Star	1	1	2	0	0	0	0
1164	Sep-16	Domestic	Military	Piston	M20P - Mooney M-20C Ranger	1	0	1	4	4	0	0
1165	Sep-16	Domestic	Military	Piston	PA44 - Piper Seminole	1	0	1	4	4	0	0
1166	Sep-16	Domestic	Military	Turbine	B350 - Beech Super King Air 350	4	2	6	24	6	12	6
1167	Sep-16	Domestic	Military	Turbine	BE20 - Beech 200 Super King	0	2	2	0	0	10	5
1168	Sep-16	Domestic	Military	Turbine	BE30 - Raytheon 300 Super King Air	4	2	6	32	8	16	8
1169	Sep-16	Domestic	Military	Turbine	EC35 - Eurocopter EC-135	2	5	7	14	7	35	7
1170	Sep-16	Domestic	Military	Turbine	EC45 - Eurocopter EC-145	2	1	3	20	10	10	10
1171	Sep-16	Domestic	Other	Jet	C550 - Cessna Citation II/Bravo	0	1	1	0	0	10	10
1172	Sep-16	Domestic	Other	Jet	C560 - Cessna Citation V/Ultra/Encore	0	1	1	0	0	8	8
1173	Sep-16	Domestic	Other	Jet	C56X - Cessna Excel/XLS	1	1	2	15	15	15	15
1174	Sep-16	Domestic	Other	Piston	-1 - unknown	0	1	1	0	0	0	0
1175	Sep-16	Domestic	Other	Piston	C421 - Cessna Golden Eagle 421	8	8	16	64	8	64	8
1176	Sep-16	Domestic	Other	Turbine	BE9L - Beech King Air 90	0	2	2	0	0	12	6
1177	Sep-16	Domestic	Other	Turbine	PAY2 - Piper Cheyenne 2	0	1	1	0	0	6	6
1178	Sep-16	Domestic	Air Taxi	Jet	C56X - Cessna Excel/XLS	4	4	8	60	15	60	15
1179	Oct-16	US to Foreign	General Aviation	Jet	LJ31 - Bombardier Learjet 31/A/B	1	0	1	8	8	0	0
1180	Oct-16	US to Foreign	General Aviation	Piston	C414 - Cessna Chancellor 414	1	0	1	6	6	0	0
1181	Oct-16	US to Foreign	General Aviation	Turbine	BE20 - Beech 200 Super King	1	0	1	5	5	0	0
1182	Oct-16	US to Foreign	Military	Piston	SR20 - Cirrus SR-20	1	0	1	4	4	0	0
1183	Oct-16	US to Foreign	Military	Turbine	B350 - Beech Super King Air 350	1	0	1	6	6	0	0
1184	Oct-16	US to Foreign	Other	Jet	C550 - Cessna Citation II/Bravo	1	0	1	10	10	0	0
1185	Oct-16	Domestic	Air Carrier	Jet	C25B - Cessna Citation CJ3	1	0	1	5	5	0	0
1186	Oct-16	Domestic	Air Carrier	Piston	BE35 - Beech Bonanza 35	2	3	5	8	4	12	4
1187	Oct-16	Domestic	Air Carrier	Piston	BE36 - Beech Bonanza 36	0	1	1	0	0	4	4
1188	Oct-16	Domestic	Air Carrier	Piston	C182 - Cessna Skylane 182	2	4	6	8	4	16	4

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1189	Oct-16	Domestic	Air Carrier	Piston	C206 - Cessna 206 Stationair	1	0	1	4	4	0	0
1190	Oct-16	Domestic	Air Carrier	Piston	C402 - Cessna 401/402	1	1	2	4	4	4	4
1191	Oct-16	Domestic	Air Carrier	Piston	P68 - Partenavia P68 Victor	1	0	1	6	6	0	0
1192	Oct-16	Domestic	Air Carrier	Turbine	B350 - Beech Super King Air 350	1	2	3	6	6	12	6
1193	Oct-16	Domestic	Air Carrier	Turbine	BE10 - Beech King Air 100 A/B	1	1	2	4	4	4	4
1194	Oct-16	Domestic	Air Carrier	Turbine	BE20 - Beech 200 Super King	6	8	14	30	5	40	5
1195	Oct-16	Domestic	Air Carrier	Turbine	BE30 - Raytheon 300 Super King Air	1	1	2	8	8	8	8
1196	Oct-16	Domestic	Air Carrier	Turbine	BE9L - Beech King Air 90	2	2	4	12	6	12	6
1197	Oct-16	Domestic	Air Carrier	Turbine	EC35 - Eurocopter EC-135	1	1	2	7	7	7	7
1198	Oct-16	Domestic	Air Carrier	Turbine	P46T - Piper Malibu Meridian	0	1	1	0	0	6	6
1199	Oct-16	Domestic	Air Carrier	Turbine	PC12 - Pilatus PC-12	2	1	3	18	9	9	9
1200	Oct-16	Domestic	Freight	Piston	BE99 - Beech Airliner 99	3	5	8	0	0	0	0
1201	Oct-16	Domestic	Freight	Turbine	B190 - Beech 1900/C-12J	1	0	1	0	0	0	0
1202	Oct-16	Domestic	General Aviation	-	-1 - unknown	2	0	2	0	0	0	0
1203	Oct-16	Domestic	General Aviation	-	R44 - Robinson R-44 Raven	1	0	1	4	4	0	0
1204	Oct-16	Domestic	General Aviation	Jet	C25A - Cessna Citation CJ2	4	3	7	32	8	24	8
1205	Oct-16	Domestic	General Aviation	Jet	C25B - Cessna Citation CJ3	3	4	7	15	5	20	5
1206	Oct-16	Domestic	General Aviation	Jet	C25C - Cessna Citation CJ4	1	1	2	0	0	0	0
1207	Oct-16	Domestic	General Aviation	Jet	C500 - Cessna 500/Citation I	2	2	4	12	6	12	6
1208	Oct-16	Domestic	General Aviation	Jet	C501 - Cessna I/SP	2	1	3	12	6	6	6
1209	Oct-16	Domestic	General Aviation	Jet	C510 - Cessna Citation Mustang	17	17	34	102	6	102	6
1210	Oct-16	Domestic	General Aviation	Jet	C525 - Cessna CitationJet/CJ1	12	14	26	60	5	70	5
1211	Oct-16	Domestic	General Aviation	Jet	C550 - Cessna Citation II/Bravo	9	10	19	90	10	100	10
1212	Oct-16	Domestic	General Aviation	Jet	C560 - Cessna Citation V/Ultra/Encore	3	2	5	24	8	16	8
1213	Oct-16	Domestic	General Aviation	Jet	C650 - Cessna III/VI/VII	1	1	2	6	6	6	6
1214	Oct-16	Domestic	General Aviation	Jet	E50P - Embraer Phenom 100	2	1	3	12	6	6	6
1215	Oct-16	Domestic	General Aviation	Jet	E55P - Embraer Phenom 300	1	2	3	8	8	16	8
1216	Oct-16	Domestic	General Aviation	Jet	EA50 - Eclipse 500	22	21	43	0	0	0	0
1217	Oct-16	Domestic	General Aviation	Jet	FA10 - Dassault Falcon/Mystère 10	5	4	9	20	4	16	4
1218	Oct-16	Domestic	General Aviation	Jet	HDJT - HONDA HA-420 HondaJet	2	2	4	0	0	0	0
1219	Oct-16	Domestic	General Aviation	Jet	LJ31 - Bombardier Learjet 31/A/B	0	1	1	0	0	8	8
1220	Oct-16	Domestic	General Aviation	Jet	LJ35 - Bombardier Learjet 35/36	4	4	8	32	8	32	8
1221	Oct-16	Domestic	General Aviation	Jet	PRM1 - Raytheon Premier 1/390 Premier 1	4	4	8	24	6	24	6
1222	Oct-16	Domestic	General Aviation	Piston	AA5 - American AA-5 Traveler	6	3	9	18	3	9	3
1223	Oct-16	Domestic	General Aviation	Piston	AA5B - American Traveler	0	1	1	0	0	4	4
1224	Oct-16	Domestic	General Aviation	Piston	AC11 - North American Commander 112	1	1	2	4	4	4	4
1225	Oct-16	Domestic	General Aviation	Piston	AC95 - Gulfstream Jetprop Commander 1000	0	1	1	0	0	6	6
1226	Oct-16	Domestic	General Aviation	Piston	AEST - Piper Aero Star	3	2	5	12	4	8	4
1227	Oct-16	Domestic	General Aviation	Piston	BE24 - Beech 24 Sierra	1	1	2	6	6	6	6
1228	Oct-16	Domestic	General Aviation	Piston	BE33 - Beech Bonanza 33	2	3	5	10	5	15	5
1229	Oct-16	Domestic	General Aviation	Piston	BE35 - Beech Bonanza 35	19	11	30	76	4	44	4
1230	Oct-16	Domestic	General Aviation	Piston	BE36 - Beech Bonanza 36	15	13	28	60	4	52	4
1231	Oct-16	Domestic	General Aviation	Piston	BE55 - Beech Baron 55	4	3	7	24	6	18	6
1232	Oct-16	Domestic	General Aviation	Piston	BE58 - Beech 58	9	11	20	36	4	44	4
1233	Oct-16	Domestic	General Aviation	Piston	BE60 - Beech 60 Duke	1	1	2	6	6	6	6
1234	Oct-16	Domestic	General Aviation	Piston	BE76 - Beech 76 Duchess	4	3	7	16	4	12	4
1235	Oct-16	Domestic	General Aviation	Piston	C172 - Cessna Skyhawk 172/Cutlass	75	61	136	300	4	244	4
1236	Oct-16	Domestic	General Aviation	Piston	C177 - Cessna 177 Cardinal	0	1	1	0	0	4	4
1237	Oct-16	Domestic	General Aviation	Piston	C182 - Cessna Skylane 182	16	15	31	64	4	60	4
1238	Oct-16	Domestic	General Aviation	Piston	C205 - Cessna 205	1	0	1	6	6	0	0
1239	Oct-16	Domestic	General Aviation	Piston	C206 - Cessna 206 Stationair	2	2	4	8	4	8	4
1240	Oct-16	Domestic	General Aviation	Piston	C210 - Cessna 210 Centurion	13	8	21	78	6	48	6
1241	Oct-16	Domestic	General Aviation	Piston	C310 - Cessna 310	1	3	4	6	6	18	6
1242	Oct-16	Domestic	General Aviation	Piston	C340 - Cessna 340	8	6	14	48	6	36	6

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1243	Oct-16	Domestic	General Aviation	Piston	C414 - Cessna Chancellor 414	5	6	11	30	6	36	6
1244	Oct-16	Domestic	General Aviation	Piston	C421 - Cessna Golden Eagle 421	10	10	20	80	8	80	8
1245	Oct-16	Domestic	General Aviation	Piston	C82R - Cessna Skylane RG	4	4	8	16	4	16	4
1246	Oct-16	Domestic	General Aviation	Piston	C82S - unknown	1	0	1	0	0	0	0
1247	Oct-16	Domestic	General Aviation	Piston	COL4 - Lancair LC-41 Columbia 400	6	6	12	24	4	24	4
1248	Oct-16	Domestic	General Aviation	Piston	DA40 - Diamond Star DA40	9	5	14	54	6	30	6
1249	Oct-16	Domestic	General Aviation	Piston	DA42 - Diamond Twin Star	2	2	4	0	0	0	0
1250	Oct-16	Domestic	General Aviation	Piston	E300 - Extra EA-300	0	1	1	0	0	2	2
1251	Oct-16	Domestic	General Aviation	Piston	M20 - Mooney M-20C Ranger	0	1	1	0	0	4	4
1252	Oct-16	Domestic	General Aviation	Piston	M20P - Mooney M-20C Ranger	14	16	30	56	4	64	4
1253	Oct-16	Domestic	General Aviation	Piston	M20T - Turbo Mooney M20K	2	2	4	8	4	8	4
1254	Oct-16	Domestic	General Aviation	Piston	P210 - Riley Super P210	8	7	15	48	6	42	6
1255	Oct-16	Domestic	General Aviation	Piston	P28A - Piper Cherokee	17	12	29	68	4	48	4
1256	Oct-16	Domestic	General Aviation	Piston	PA24 - Piper PA-24	3	3	6	15	5	15	5
1257	Oct-16	Domestic	General Aviation	Piston	PA27 - Piper Aztec	0	1	1	0	0	4	4
1258	Oct-16	Domestic	General Aviation	Piston	PA28 - Piper Cherokee	0	2	2	0	0	56	28
1259	Oct-16	Domestic	General Aviation	Piston	PA32 - Piper Cherokee Six	7	4	11	42	6	24	6
1260	Oct-16	Domestic	General Aviation	Piston	PA44 - Piper Seminole	17	15	32	68	4	60	4
1261	Oct-16	Domestic	General Aviation	Piston	PA46 - Piper Malibu	10	9	19	60	6	54	6
1262	Oct-16	Domestic	General Aviation	Piston	RV10 - Experimental	2	2	4	0	0	0	0
1263	Oct-16	Domestic	General Aviation	Piston	RV7 - Experimental RV-7	1	1	2	2	2	2	2
1264	Oct-16	Domestic	General Aviation	Piston	RV9 - Experimental	2	1	3	4	2	2	2
1265	Oct-16	Domestic	General Aviation	Piston	SR20 - Cirrus SR-20	2	2	4	8	4	8	4
1266	Oct-16	Domestic	General Aviation	Piston	SR22 - Cirrus SR 22	39	41	80	156	4	164	4
1267	Oct-16	Domestic	General Aviation	Piston	TBM - Grumman G-40 Avenger	1	0	1	2	2	0	0
1268	Oct-16	Domestic	General Aviation	Turbine	AC80 - Aero Commander Turbo 680	2	2	4	8	4	8	4
1269	Oct-16	Domestic	General Aviation	Turbine	B350 - Beech Super King Air 350	57	60	117	342	6	360	6
1270	Oct-16	Domestic	General Aviation	Turbine	BE20 - Beech 200 Super King	23	23	46	115	5	115	5
1271	Oct-16	Domestic	General Aviation	Turbine	BE30 - Raytheon 300 Super King Air	1	1	2	8	8	8	8
1272	Oct-16	Domestic	General Aviation	Turbine	BE9L - Beech King Air 90	4	5	9	24	6	30	6
1273	Oct-16	Domestic	General Aviation	Turbine	C208 - Cessna 208 Caravan	1	1	2	14	14	14	14
1274	Oct-16	Domestic	General Aviation	Turbine	C425 - Cessna 425 Corsair	3	2	5	12	4	8	4
1275	Oct-16	Domestic	General Aviation	Turbine	C441 - Cessna Conquest	4	3	7	24	6	18	6
1276	Oct-16	Domestic	General Aviation	Turbine	EC35 - Eurocopter EC-135	2	0	2	14	7	0	0
1277	Oct-16	Domestic	General Aviation	Turbine	EPIC - Dynasty	1	1	2	0	0	0	0
1278	Oct-16	Domestic	General Aviation	Turbine	P180 - Piaggio P-180 Avanti	1	1	2	9	9	9	9
1279	Oct-16	Domestic	General Aviation	Turbine	P46T - Piper Malibu Meridian	6	5	11	36	6	30	6
1280	Oct-16	Domestic	General Aviation	Turbine	PAY1 - Piper Cheyenne 1	1	1	2	4	4	4	4
1281	Oct-16	Domestic	General Aviation	Turbine	PC12 - Pilatus PC-12	27	27	54	243	9	243	9
1282	Oct-16	Domestic	General Aviation	Turbine	SW3 - Fairchild Swearingen SA-226T/TB Merlin 3	1	1	2	20	20	20	20
1283	Oct-16	Domestic	General Aviation	Turbine	TBM7 - Socata TBM-7	4	5	9	16	4	20	4
1284	Oct-16	Domestic	General Aviation	Turbine	TBM8 - Socata TBM-850	2	2	4	0	0	0	0
1285	Oct-16	Domestic	General Aviation	Turbine	TBM9 - Socata TBM	1	1	2	0	0	0	0
1286	Oct-16	Domestic	Military	Piston	BE33 - Beech Bonanza 33	1	0	1	5	5	0	0
1287	Oct-16	Domestic	Military	Piston	C182 - Cessna Skylane 182	1	0	1	4	4	0	0
1288	Oct-16	Domestic	Military	Piston	P28A - Piper Cherokee	5	4	9	20	4	16	4
1289	Oct-16	Domestic	Military	Piston	PA32 - Piper Cherokee Six	1	0	1	6	6	0	0
1290	Oct-16	Domestic	Military	Piston	PA44 - Piper Seminole	2	0	2	8	4	0	0
1291	Oct-16	Domestic	Military	Piston	SR22 - Cirrus SR 22	1	0	1	4	4	0	0
1292	Oct-16	Domestic	Military	Turbine	BE20 - Beech 200 Super King	4	2	6	20	5	10	5
1293	Oct-16	Domestic	Military	Turbine	BE30 - Raytheon 300 Super King Air	1	0	1	8	8	0	0
1294	Oct-16	Domestic	Military	Turbine	EC35 - Eurocopter EC-135	1	5	6	7	7	35	7
1295	Oct-16	Domestic	Military	Turbine	EC45 - Eurocopter EC-145	0	1	1	0	0	10	10
1296	Oct-16	Domestic	Military	Turbine	PC12 - Pilatus PC-12	0	1	1	0	0	9	9

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#	Date	Flight Type	User Class	Physical Class	Aircraft	Departures	Arrivals	Total Operations	Departure Seats	Average Departure	Arrival Seats	Average Arrival
1297	Oct-16	Domestic	Other	Jet	C525 - Cessna CitationJet/CJ1	0	2	2	0	0	10	5
1298	Oct-16	Domestic	Other	Jet	EA50 - Eclipse 500	1	1	2	0	0	0	0
1299	Oct-16	Domestic	Other	Jet	LJ35 - Bombardier Learjet 35/36	1	0	1	8	8	0	0
1300	Oct-16	Domestic	Other	Piston	-1 - unknown	1	5	6	0	0	0	0
1301	Oct-16	Domestic	Other	Piston	C172 - Cessna Skyhawk 172/Cutlass	2	2	4	8	4	8	4
1302	Oct-16	Domestic	Other	Piston	C421 - Cessna Golden Eagle 421	5	7	12	40	8	56	8
1303	Oct-16	Domestic	Other	Turbine	BE20 - Beech 200 Super King	2	2	4	10	5	10	5
1304	Nov-16	US to Foreign	General Aviation	Jet	C25B - Cessna Citation CJ3	2	0	2	10	5	0	0
1305	Nov-16	US to Foreign	General Aviation	Jet	C525 - Cessna CitationJet/CJ1	1	0	1	5	5	0	0
1306	Nov-16	US to Foreign	General Aviation	Jet	EA50 - Eclipse 500	1	0	1	0	0	0	0
1307	Nov-16	US to Foreign	General Aviation	Piston	C414 - Cessna Chancellor 414	1	0	1	6	6	0	0
1308	Nov-16	Domestic	Air Carrier	-	S76 - Sikorsky S-76	0	1	1	0	0	12	12
1309	Nov-16	Domestic	Air Carrier	Jet	C525 - Cessna CitationJet/CJ1	1	1	2	5	5	5	5
1310	Nov-16	Domestic	Air Carrier	Jet	C56X - Cessna Excel/XLS	1	1	2	15	15	15	15
1311	Nov-16	Domestic	Air Carrier	Jet	E50P - Embraer Phenom 100	0	1	1	0	0	6	6
1312	Nov-16	Domestic	Air Carrier	Piston	BE35 - Beech Bonanza 35	2	3	5	8	4	12	4
1313	Nov-16	Domestic	Air Carrier	Piston	C182 - Cessna Skylane 182	3	2	5	12	4	8	4
1314	Nov-16	Domestic	Air Carrier	Piston	C206 - Cessna 206 Stationair	1	0	1	4	4	0	0
1315	Nov-16	Domestic	Air Carrier	Piston	C210 - Cessna 210 Centurion	0	1	1	0	0	6	6
1316	Nov-16	Domestic	Air Carrier	Piston	DA40 - Diamond Star DA40	2	2	4	12	6	12	6
1317	Nov-16	Domestic	Air Carrier	Piston	PA46 - Piper Malibu	1	0	1	6	6	0	0
1318	Nov-16	Domestic	Air Carrier	Piston	SR22 - Cirrus SR 22	4	4	8	16	4	16	4
1319	Nov-16	Domestic	Air Carrier	Turbine	B350 - Beech Super King Air 350	5	4	9	30	6	24	6
1320	Nov-16	Domestic	Air Carrier	Turbine	BE20 - Beech 200 Super King	14	17	31	70	5	85	5
1321	Nov-16	Domestic	Air Carrier	Turbine	BE30 - Raytheon 300 Super King Air	1	1	2	8	8	8	8
1322	Nov-16	Domestic	Air Carrier	Turbine	EC35 - Eurocopter EC-135	1	0	1	7	7	0	0
1323	Nov-16	Domestic	Freight	Piston	BE99 - Beech Airliner 99	1	4	5	0	0	0	0
1324	Nov-16	Domestic	Freight	Turbine	B190 - Beech 1900/C-12J	2	0	2	0	0	0	0
1325	Nov-16	Domestic	General Aviation	-	-1 - unknown	3	3	6	0	0	0	0
1326	Nov-16	Domestic	General Aviation	-	M20K - Mooney M-20	1	0	1	4	4	0	0
1327	Nov-16	Domestic	General Aviation	-	R22 - Robinson R-22 Mariner	1	1	2	2	2	2	2
1328	Nov-16	Domestic	General Aviation	-	R44 - Robinson R-44 Raven	1	1	2	4	4	4	4
1329	Nov-16	Domestic	General Aviation	Jet	C25A - Cessna Citation CJ2	2	2	4	16	8	16	8
1330	Nov-16	Domestic	General Aviation	Jet	C25B - Cessna Citation CJ3	7	7	14	35	5	35	5
1331	Nov-16	Domestic	General Aviation	Jet	C25C - Cessna Citation CJ4	1	1	2	0	0	0	0
1332	Nov-16	Domestic	General Aviation	Jet	C500 - Cessna 500/Citation I	2	2	4	12	6	12	6
1333	Nov-16	Domestic	General Aviation	Jet	C501 - Cessna I/SP	3	2	5	18	6	12	6
1334	Nov-16	Domestic	General Aviation	Jet	C510 - Cessna Citation Mustang	2	2	4	12	6	12	6
1335	Nov-16	Domestic	General Aviation	Jet	C525 - Cessna CitationJet/CJ1	17	19	36	85	5	95	5
1336	Nov-16	Domestic	General Aviation	Jet	C550 - Cessna Citation II/Bravo	12	12	24	120	10	120	10
1337	Nov-16	Domestic	General Aviation	Jet	C56X - Cessna Excel/XLS	6	7	13	90	15	105	15
1338	Nov-16	Domestic	General Aviation	Jet	C680 - Cessna Citation Sovereign	1	0	1	12	12	0	0
1339	Nov-16	Domestic	General Aviation	Jet	E50P - Embraer Phenom 100	1	0	1	6	6	0	0
1340	Nov-16	Domestic	General Aviation	Jet	E55P - Embraer Phenom 300	1	1	2	8	8	8	8
1341	Nov-16	Domestic	General Aviation	Jet	EA50 - Eclipse 500	23	23	46	0	0	0	0
1342	Nov-16	Domestic	General Aviation	Jet	FA10 - Dassault Falcon/Mystère 10	1	1	2	4	4	4	4
1343	Nov-16	Domestic	General Aviation	Jet	HDJT - HONDA HA-420 HondaJet	2	2	4	0	0	0	0
1344	Nov-16	Domestic	General Aviation	Jet	LJ31 - Bombardier Learjet 31/A/B	0	1	1	0	0	8	8
1345	Nov-16	Domestic	General Aviation	Jet	LJ35 - Bombardier Learjet 35/36	8	7	15	64	8	56	8
1346	Nov-16	Domestic	General Aviation	Jet	PRM1 - Raytheon Premier 1/390 Premier 1	3	4	7	18	6	24	6
1347	Nov-16	Domestic	General Aviation	Piston	AA5 - American AA-5 Traveler	3	2	5	9	3	6	3
1348	Nov-16	Domestic	General Aviation	Piston	AA5B - American Traveler	0	1	1	0	0	4	4
1349	Nov-16	Domestic	General Aviation	Piston	AC11 - North American Commander 112	2	2	4	8	4	8	4
1350	Nov-16	Domestic	General Aviation	Piston	AC95 - Gulfstream Jetprop Commander 1000	1	1	2	6	6	6	6

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#	Date	Flight Type	User Class	Physical Class	Aircraft	Departures	Arrivals	Total Operations	Departure Seats	Average Departure	Arrival Seats	Average Arrival
1351	Nov-16	Domestic	General Aviation	Piston	AEST - Piper Aero Star	1	2	3	4	4	8	4
1352	Nov-16	Domestic	General Aviation	Piston	BE33 - Beech Bonanza 33	6	2	8	30	5	10	5
1353	Nov-16	Domestic	General Aviation	Piston	BE35 - Beech Bonanza 35	14	10	24	56	4	40	4
1354	Nov-16	Domestic	General Aviation	Piston	BE36 - Beech Bonanza 36	11	14	25	44	4	56	4
1355	Nov-16	Domestic	General Aviation	Piston	BE55 - Beech Baron 55	3	3	6	18	6	18	6
1356	Nov-16	Domestic	General Aviation	Piston	BE58 - Beech 58	12	8	20	48	4	32	4
1357	Nov-16	Domestic	General Aviation	Piston	C152 - Cessna 152	1	1	2	4	4	4	4
1358	Nov-16	Domestic	General Aviation	Piston	C172 - Cessna Skyhawk 172/Cutlass	67	58	125	268	4	232	4
1359	Nov-16	Domestic	General Aviation	Piston	C177 - Cessna 177 Cardinal	0	1	1	0	0	4	4
1360	Nov-16	Domestic	General Aviation	Piston	C180 - Cessna 180	1	1	2	4	4	4	4
1361	Nov-16	Domestic	General Aviation	Piston	C182 - Cessna Skylane 182	16	8	24	64	4	32	4
1362	Nov-16	Domestic	General Aviation	Piston	C205 - Cessna 205	0	1	1	0	0	6	6
1363	Nov-16	Domestic	General Aviation	Piston	C206 - Cessna 206 Stationair	0	2	2	0	0	8	4
1364	Nov-16	Domestic	General Aviation	Piston	C210 - Cessna 210 Centurion	8	10	18	48	6	60	6
1365	Nov-16	Domestic	General Aviation	Piston	C240 - Cessna TTx Model T240	2	2	4	0	0	0	0
1366	Nov-16	Domestic	General Aviation	Piston	C310 - Cessna 310	1	1	2	6	6	6	6
1367	Nov-16	Domestic	General Aviation	Piston	C337 - Cessna Turbo Super Skymaster	0	1	1	0	0	4	4
1368	Nov-16	Domestic	General Aviation	Piston	C340 - Cessna 340	4	1	5	24	6	6	6
1369	Nov-16	Domestic	General Aviation	Piston	C414 - Cessna Chancellor 414	6	7	13	36	6	42	6
1370	Nov-16	Domestic	General Aviation	Piston	C421 - Cessna Golden Eagle 421	8	5	13	64	8	40	8
1371	Nov-16	Domestic	General Aviation	Piston	C82R - Cessna Skylane RG	3	2	5	12	4	8	4
1372	Nov-16	Domestic	General Aviation	Piston	COL4 - Lancair LC-41 Columbia 400	5	4	9	20	4	16	4
1373	Nov-16	Domestic	General Aviation	Piston	COZY - Rutan Cozy	0	1	1	0	0	4	4
1374	Nov-16	Domestic	General Aviation	Piston	DA40 - Diamond Star DA40	5	3	8	30	6	18	6
1375	Nov-16	Domestic	General Aviation	Piston	DA42 - Diamond Twin Star	3	2	5	0	0	0	0
1376	Nov-16	Domestic	General Aviation	Piston	GLSP - F-GLSP	1	0	1	0	0	0	0
1377	Nov-16	Domestic	General Aviation	Piston	M20P - Mooney M-20C Ranger	3	7	10	12	4	28	4
1378	Nov-16	Domestic	General Aviation	Piston	M20T - Turbo Mooney M20K	3	3	6	12	4	12	4
1379	Nov-16	Domestic	General Aviation	Piston	P210 - Riley Super P210	7	5	12	42	6	30	6
1380	Nov-16	Domestic	General Aviation	Piston	P28A - Piper Cherokee	23	20	43	92	4	80	4
1381	Nov-16	Domestic	General Aviation	Piston	P28R - Cherokee Arrow/Turbo	1	1	2	4	4	4	4
1382	Nov-16	Domestic	General Aviation	Piston	PA24 - Piper PA-24	2	2	4	10	5	10	5
1383	Nov-16	Domestic	General Aviation	Piston	PA28 - Piper Cherokee	0	1	1	0	0	28	28
1384	Nov-16	Domestic	General Aviation	Piston	PA30 - Piper PA-30	1	1	2	6	6	6	6
1385	Nov-16	Domestic	General Aviation	Piston	PA32 - Piper Cherokee Six	7	7	14	42	6	42	6
1386	Nov-16	Domestic	General Aviation	Piston	PA44 - Piper Seminole	16	13	29	64	4	52	4
1387	Nov-16	Domestic	General Aviation	Piston	PA46 - Piper Malibu	10	9	19	60	6	54	6
1388	Nov-16	Domestic	General Aviation	Piston	RV10 - Experimental	2	2	4	0	0	0	0
1389	Nov-16	Domestic	General Aviation	Piston	RV7 - Experimental RV-7	1	1	2	2	2	2	2
1390	Nov-16	Domestic	General Aviation	Piston	RV9 - Experimental	1	1	2	2	2	2	2
1391	Nov-16	Domestic	General Aviation	Piston	SR20 - Cirrus SR-20	1	1	2	4	4	4	4
1392	Nov-16	Domestic	General Aviation	Piston	SR22 - Cirrus SR 22	43	30	73	172	4	120	4
1393	Nov-16	Domestic	General Aviation	Piston	TB20 - Taylorcraft Seabird	1	0	1	4	4	0	0
1394	Nov-16	Domestic	General Aviation	Turbine	AC80 - Aero Commander Turbo 680	1	1	2	4	4	4	4
1395	Nov-16	Domestic	General Aviation	Turbine	AC90 - Gulfstream Commander	1	1	2	4	4	4	4
1396	Nov-16	Domestic	General Aviation	Turbine	B350 - Beech Super King Air 350	57	57	114	342	6	342	6
1397	Nov-16	Domestic	General Aviation	Turbine	BE20 - Beech 200 Super King	32	29	61	160	5	145	5
1398	Nov-16	Domestic	General Aviation	Turbine	BE30 - Raytheon 300 Super King Air	1	1	2	8	8	8	8
1399	Nov-16	Domestic	General Aviation	Turbine	BE9L - Beech King Air 90	4	5	9	24	6	30	6
1400	Nov-16	Domestic	General Aviation	Turbine	BE9T - Beech F90 King Air	2	2	4	8	4	8	4
1401	Nov-16	Domestic	General Aviation	Turbine	C425 - Cessna 425 Corsair	1	1	2	4	4	4	4
1402	Nov-16	Domestic	General Aviation	Turbine	C441 - Cessna Conquest	3	4	7	18	6	24	6
1403	Nov-16	Domestic	General Aviation	Turbine	MU2 - Mitsubishi Marquise/Solitaire	1	2	3	6	6	12	6
1404	Nov-16	Domestic	General Aviation	Turbine	P46T - Piper Malibu Meridian	0	2	2	0	0	12	6

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#	Date	Flight Type	User Class	Physical Class	Aircraft	Departures	Arrivals	Total Operations	Departure Seats	Average Departure	Arrival Seats	Average Arrival
1405	Nov-16	Domestic	General Aviation	Turbine	PC12 - Pilatus PC-12	15	15	30	135	9	135	9
1406	Nov-16	Domestic	General Aviation	Turbine	TBM7 - Socata TBM-7	9	6	15	36	4	24	4
1407	Nov-16	Domestic	General Aviation	Turbine	TBM8 - Socata TBM-850	8	9	17	0	0	0	0
1408	Nov-16	Domestic	Military	-	H60 - Sikorsky SH-60 Seahawk	0	2	2	0	0	8	4
1409	Nov-16	Domestic	Military	Piston	C172 - Cessna Skyhawk 172/Cutlass	1	0	1	4	4	0	0
1410	Nov-16	Domestic	Military	Piston	C182 - Cessna Skylane 182	0	1	1	0	0	4	4
1411	Nov-16	Domestic	Military	Piston	P28A - Piper Cherokee	3	4	7	12	4	16	4
1412	Nov-16	Domestic	Military	Turbine	BE20 - Beech 200 Super King	1	2	3	5	5	10	5
1413	Nov-16	Domestic	Military	Turbine	BE30 - Raytheon 300 Super King Air	1	0	1	8	8	0	0
1414	Nov-16	Domestic	Military	Turbine	EC45 - Eurocopter EC-145	2	2	4	20	10	20	10
1415	Nov-16	Domestic	Other	Jet	C550 - Cessna Citation II/Bravo	1	1	2	10	10	10	10
1416	Nov-16	Domestic	Other	Jet	LJ35 - Bombardier Learjet 35/36	1	0	1	8	8	0	0
1417	Nov-16	Domestic	Other	Piston	-1 - unknown	1	4	5	0	0	0	0
1418	Nov-16	Domestic	Other	Piston	C421 - Cessna Golden Eagle 421	8	5	13	64	8	40	8
1419	Nov-16	Domestic	Other	Piston	SR20 - Cirrus SR-20	0	1	1	0	0	4	4
1420	Nov-16	Domestic	Other	Turbine	BE20 - Beech 200 Super King	1	3	4	5	5	15	5
1421	Nov-16	Domestic	Other	Turbine	C441 - Cessna Conquest	1	1	2	6	6	6	6
1422	Nov-16	Domestic	Other	Turbine	PC12 - Pilatus PC-12	0	1	1	0	0	9	9
1423	Nov-16	Domestic	Air Taxi	Jet	C56X - Cessna Excel/XLS	1	1	2	15	15	15	15
1424	Dec-16	US to Foreign	General Aviation	Jet	C510 - Cessna Citation Mustang	1	0	1	6	6	0	0
1425	Dec-16	US to Foreign	General Aviation	Piston	BE36 - Beech Bonanza 36	1	0	1	4	4	0	0
1426	Dec-16	US to Foreign	General Aviation	Piston	PA46 - Piper Malibu	1	0	1	6	6	0	0
1427	Dec-16	US to Foreign	General Aviation	Turbine	B350 - Beech Super King Air 350	1	0	1	6	6	0	0
1428	Dec-16	Domestic	Air Carrier	Jet	E50P - Embraer Phenom 100	4	4	8	24	6	24	6
1429	Dec-16	Domestic	Air Carrier	Jet	LJ31 - Bombardier Learjet 31/A/B	2	2	4	16	8	16	8
1430	Dec-16	Domestic	Air Carrier	Piston	BN2P - Britten Norman Islander	1	0	1	8	8	0	0
1431	Dec-16	Domestic	Air Carrier	Piston	C182 - Cessna Skylane 182	2	2	4	8	4	8	4
1432	Dec-16	Domestic	Air Carrier	Piston	C414 - Cessna Chancellor 414	1	0	1	6	6	0	0
1433	Dec-16	Domestic	Air Carrier	Piston	DA40 - Diamond Star DA40	1	1	2	6	6	6	6
1434	Dec-16	Domestic	Air Carrier	Piston	P68 - Partenavia P68 Victor	1	0	1	6	6	0	0
1435	Dec-16	Domestic	Air Carrier	Piston	PA31 - Piper Navajo PA-31	0	1	1	0	0	8	8
1436	Dec-16	Domestic	Air Carrier	Piston	PA46 - Piper Malibu	0	1	1	0	0	6	6
1437	Dec-16	Domestic	Air Carrier	Piston	SR22 - Cirrus SR 22	2	2	4	8	4	8	4
1438	Dec-16	Domestic	Air Carrier	Turbine	B350 - Beech Super King Air 350	2	2	4	12	6	12	6
1439	Dec-16	Domestic	Air Carrier	Turbine	BE20 - Beech 200 Super King	19	20	39	95	5	100	5
1440	Dec-16	Domestic	Air Carrier	Turbine	BE9L - Beech King Air 90	4	4	8	24	6	24	6
1441	Dec-16	Domestic	Air Carrier	Turbine	EC35 - Eurocopter EC-135	5	3	8	35	7	21	7
1442	Dec-16	Domestic	Air Carrier	Turbine	PC12 - Pilatus PC-12	2	2	4	18	9	18	9
1443	Dec-16	Domestic	Freight	Piston	BE99 - Beech Airliner 99	4	4	8	0	0	0	0
1444	Dec-16	Domestic	Freight	Turbine	B190 - Beech 1900/C-12J	1	1	2	0	0	0	0
1445	Dec-16	Domestic	General Aviation	-	-1 - unknown	2	6	8	0	0	0	0
1446	Dec-16	Domestic	General Aviation	-	BE9 - Beechcraft C99 Airliner; Beech Aircraft	0	1	1	0	0	19	19
1447	Dec-16	Domestic	General Aviation	-	M20K - Mooney M-20	1	0	1	4	4	0	0
1448	Dec-16	Domestic	General Aviation	-	R44 - Robinson R-44 Raven	1	0	1	4	4	0	0
1449	Dec-16	Domestic	General Aviation	Jet	C25A - Cessna Citation CJ2	4	4	8	32	8	32	8
1450	Dec-16	Domestic	General Aviation	Jet	C25B - Cessna Citation CJ3	6	7	13	30	5	35	5
1451	Dec-16	Domestic	General Aviation	Jet	C25C - Cessna Citation CJ4	3	4	7	0	0	0	0
1452	Dec-16	Domestic	General Aviation	Jet	C500 - Cessna 500/Citation I	0	1	1	0	0	6	6
1453	Dec-16	Domestic	General Aviation	Jet	C501 - Cessna I/SP	3	3	6	18	6	18	6
1454	Dec-16	Domestic	General Aviation	Jet	C510 - Cessna Citation Mustang	3	4	7	18	6	24	6
1455	Dec-16	Domestic	General Aviation	Jet	C525 - Cessna CitationJet/CJ1	15	14	29	75	5	70	5
1456	Dec-16	Domestic	General Aviation	Jet	C550 - Cessna Citation II/Bravo	6	6	12	60	10	60	10
1457	Dec-16	Domestic	General Aviation	Jet	C560 - Cessna Citation V/Ultra/Encore	2	3	5	16	8	24	8
1458	Dec-16	Domestic	General Aviation	Jet	C56X - Cessna Excel/XLS	5	5	10	75	15	75	15

TFMSC Report (MYF)

From 01/2016 To 12/2016 | Airport=MYF

#	Date	Flight Type	User Class	Physical Class	Aircraft	Departures	Arrivals	Total Operations	Departure Seats	Average Departure	Arrival Seats	Average Arrival
1459	Dec-16	Domestic	General Aviation	Jet	E50P - Embraer Phenom 100	1	1	2	6	6	6	6
1460	Dec-16	Domestic	General Aviation	Jet	EA50 - Eclipse 500	17	19	36	0	0	0	0
1461	Dec-16	Domestic	General Aviation	Jet	FA10 - Dassault Falcon/Mystère 10	3	3	6	12	4	12	4
1462	Dec-16	Domestic	General Aviation	Jet	HDJT - HONDA HA-420 HondaJet	2	2	4	0	0	0	0
1463	Dec-16	Domestic	General Aviation	Jet	LJ31 - Bombardier Learjet 31/A/B	1	1	2	8	8	8	8
1464	Dec-16	Domestic	General Aviation	Jet	LJ35 - Bombardier Learjet 35/36	4	6	10	32	8	48	8
1465	Dec-16	Domestic	General Aviation	Jet	PRM1 - Raytheon Premier 1/390 Premier 1	4	3	7	24	6	18	6
1466	Dec-16	Domestic	General Aviation	Piston	AA5 - American AA-5 Traveler	4	4	8	12	3	12	3
1467	Dec-16	Domestic	General Aviation	Piston	AC95 - Gulfstream Jetprop Commander 1000	1	1	2	6	6	6	6
1468	Dec-16	Domestic	General Aviation	Piston	BE24 - Beech 24 Sierra	1	0	1	6	6	0	0
1469	Dec-16	Domestic	General Aviation	Piston	BE33 - Beech Bonanza 33	2	5	7	10	5	25	5
1470	Dec-16	Domestic	General Aviation	Piston	BE35 - Beech Bonanza 35	12	10	22	48	4	40	4
1471	Dec-16	Domestic	General Aviation	Piston	BE36 - Beech Bonanza 36	10	8	18	40	4	32	4
1472	Dec-16	Domestic	General Aviation	Piston	BE55 - Beech Baron 55	3	3	6	18	6	18	6
1473	Dec-16	Domestic	General Aviation	Piston	BE58 - Beech 58	8	10	18	32	4	40	4
1474	Dec-16	Domestic	General Aviation	Piston	BE76 - Beech 76 Duchess	2	2	4	8	4	8	4
1475	Dec-16	Domestic	General Aviation	Piston	BN2P - Britten Norman Islander	0	1	1	0	0	8	8
1476	Dec-16	Domestic	General Aviation	Piston	C152 - Cessna 152	4	3	7	16	4	12	4
1477	Dec-16	Domestic	General Aviation	Piston	C172 - Cessna Skyhawk 172/Cutlass	82	72	154	328	4	288	4
1478	Dec-16	Domestic	General Aviation	Piston	C177 - Cessna 177 Cardinal	0	1	1	0	0	4	4
1479	Dec-16	Domestic	General Aviation	Piston	C180 - Cessna 180	1	0	1	4	4	0	0
1480	Dec-16	Domestic	General Aviation	Piston	C182 - Cessna Skylane 182	14	11	25	56	4	44	4
1481	Dec-16	Domestic	General Aviation	Piston	C205 - Cessna 205	2	2	4	12	6	12	6
1482	Dec-16	Domestic	General Aviation	Piston	C206 - Cessna 206 Stationair	3	1	4	12	4	4	4
1483	Dec-16	Domestic	General Aviation	Piston	C210 - Cessna 210 Centurion	5	6	11	30	6	36	6
1484	Dec-16	Domestic	General Aviation	Piston	C310 - Cessna 310	1	1	2	6	6	6	6
1485	Dec-16	Domestic	General Aviation	Piston	C340 - Cessna 340	4	2	6	24	6	12	6
1486	Dec-16	Domestic	General Aviation	Piston	C402 - Cessna 401/402	0	2	2	0	0	8	4
1487	Dec-16	Domestic	General Aviation	Piston	C414 - Cessna Chancellor 414	6	5	11	36	6	30	6
1488	Dec-16	Domestic	General Aviation	Piston	C421 - Cessna Golden Eagle 421	7	9	16	56	8	72	8
1489	Dec-16	Domestic	General Aviation	Piston	C82R - Cessna Skylane RG	1	1	2	4	4	4	4
1490	Dec-16	Domestic	General Aviation	Piston	COL4 - Lancair LC-41 Columbia 400	3	4	7	12	4	16	4
1491	Dec-16	Domestic	General Aviation	Piston	DA40 - Diamond Star DA40	2	4	6	12	6	24	6
1492	Dec-16	Domestic	General Aviation	Piston	DA42 - Diamond Twin Star	5	5	10	0	0	0	0
1493	Dec-16	Domestic	General Aviation	Piston	GA7 - Grumman American Cougar	0	1	1	0	0	4	4
1494	Dec-16	Domestic	General Aviation	Piston	LNC2 - Lancair 360	1	1	2	4	4	4	4
1495	Dec-16	Domestic	General Aviation	Piston	M20P - Mooney M-20C Ranger	9	9	18	36	4	36	4
1496	Dec-16	Domestic	General Aviation	Piston	P210 - Riley Super P210	8	9	17	48	6	54	6
1497	Dec-16	Domestic	General Aviation	Piston	P28A - Piper Cherokee	25	16	41	100	4	64	4
1498	Dec-16	Domestic	General Aviation	Piston	P28R - Cherokee Arrow/Turbo	0	1	1	0	0	4	4
1499	Dec-16	Domestic	General Aviation	Piston	P32R - Piper 32	0	1	1	0	0	4	4
1500	Dec-16	Domestic	General Aviation	Piston	PA24 - Piper PA-24	2	4	6	10	5	20	5
1501	Dec-16	Domestic	General Aviation	Piston	PA28 - Piper Cherokee	0	2	2	0	0	56	28
1502	Dec-16	Domestic	General Aviation	Piston	PA32 - Piper Cherokee Six	5	2	7	30	6	12	6
1503	Dec-16	Domestic	General Aviation	Piston	PA44 - Piper Seminole	11	12	23	44	4	48	4
1504	Dec-16	Domestic	General Aviation	Piston	PA46 - Piper Malibu	8	9	17	48	6	54	6
1505	Dec-16	Domestic	General Aviation	Piston	RV9 - Experimental	0	1	1	0	0	2	2
1506	Dec-16	Domestic	General Aviation	Piston	S22T - Cirrus SR-22 Turbo	1	1	2	0	0	0	0
1507	Dec-16	Domestic	General Aviation	Piston	SR20 - Cirrus SR-20	2	2	4	8	4	8	4
1508	Dec-16	Domestic	General Aviation	Piston	SR22 - Cirrus SR 22	27	25	52	108	4	100	4
1509	Dec-16	Domestic	General Aviation	Turbine	B350 - Beech Super King Air 350	43	43	86	258	6	258	6
1510	Dec-16	Domestic	General Aviation	Turbine	BE10 - Beech King Air 100 A/B	0	1	1	0	0	4	4
1511	Dec-16	Domestic	General Aviation	Turbine	BE20 - Beech 200 Super King	39	34	73	195	5	170	5
1512	Dec-16	Domestic	General Aviation	Turbine	BE30 - Raytheon 300 Super King Air	2	1	3	16	8	8	8

TFMSC Report (MYF)

From 01/2016 To 12/2016 | Airport=MYF

#	Date	Flight Type	User Class	Physical Class	Aircraft	Departures	Arrivals	Total Operations	Departure Seats	Average Departure	Arrival Seats	Average Arrival
1513	Dec-16	Domestic	General Aviation	Turbine	BE9L - Beech King Air 90	5	4	9	30	6	24	6
1514	Dec-16	Domestic	General Aviation	Turbine	BE9T - Beech F90 King Air	1	1	2	4	4	4	4
1515	Dec-16	Domestic	General Aviation	Turbine	C425 - Cessna 425 Corsair	2	2	4	8	4	8	4
1516	Dec-16	Domestic	General Aviation	Turbine	C441 - Cessna Conquest	5	4	9	30	6	24	6
1517	Dec-16	Domestic	General Aviation	Turbine	E500 - Extra 500	1	0	1	6	6	0	0
1518	Dec-16	Domestic	General Aviation	Turbine	EC45 - Eurocopter EC-145	0	1	1	0	0	10	10
1519	Dec-16	Domestic	General Aviation	Turbine	MU2 - Mitsubishi Marquise/Solitaire	3	2	5	18	6	12	6
1520	Dec-16	Domestic	General Aviation	Turbine	P46T - Piper Malibu Meridian	5	5	10	30	6	30	6
1521	Dec-16	Domestic	General Aviation	Turbine	PAY2 - Piper Cheyenne 2	1	1	2	6	6	6	6
1522	Dec-16	Domestic	General Aviation	Turbine	PC12 - Pilatus PC-12	16	17	33	144	9	153	9
1523	Dec-16	Domestic	General Aviation	Turbine	TBM7 - Socata TBM-7	10	12	22	40	4	48	4
1524	Dec-16	Domestic	General Aviation	Turbine	TBM8 - Socata TBM-850	1	2	3	0	0	0	0
1525	Dec-16	Domestic	Military	-	H60 - Sikorsky SH-60 Seahawk	0	1	1	0	0	4	4
1526	Dec-16	Domestic	Military	Jet	E50P - Embraer Phenom 100	1	1	2	6	6	6	6
1527	Dec-16	Domestic	Military	Piston	C172 - Cessna Skyhawk 172/Cutlass	0	1	1	0	0	4	4
1528	Dec-16	Domestic	Military	Piston	C210 - Cessna 210 Centurion	1	0	1	6	6	0	0
1529	Dec-16	Domestic	Military	Piston	M20P - Mooney M-20C Ranger	1	0	1	4	4	0	0
1530	Dec-16	Domestic	Military	Piston	P28R - Cherokee Arrow/Turbo	1	0	1	4	4	0	0
1531	Dec-16	Domestic	Military	Piston	SR22 - Cirrus SR 22	0	1	1	0	0	4	4
1532	Dec-16	Domestic	Military	Turbine	B350 - Beech Super King Air 350	0	1	1	0	0	6	6
1533	Dec-16	Domestic	Military	Turbine	BE20 - Beech 200 Super King	0	3	3	0	0	15	5
1534	Dec-16	Domestic	Military	Turbine	BE30 - Raytheon 300 Super King Air	3	2	5	24	8	16	8
1535	Dec-16	Domestic	Military	Turbine	EC35 - Eurocopter EC-135	1	3	4	7	7	21	7
1536	Dec-16	Domestic	Military	Turbine	EC45 - Eurocopter EC-145	0	1	1	0	0	10	10
1537	Dec-16	Domestic	Other	-	RNDR - Dac Ranger	0	1	1	0	0	0	0
1538	Dec-16	Domestic	Other	Jet	C525 - Cessna CitationJet/CJ1	1	1	2	5	5	5	5
1539	Dec-16	Domestic	Other	Jet	LJ35 - Bombardier Learjet 35/36	3	2	5	24	8	16	8
1540	Dec-16	Domestic	Other	Piston	-1 - unknown	0	4	4	0	0	0	0
1541	Dec-16	Domestic	Other	Piston	C172 - Cessna Skyhawk 172/Cutlass	3	2	5	12	4	8	4
1542	Dec-16	Domestic	Other	Piston	C421 - Cessna Golden Eagle 421	11	10	21	88	8	80	8
1543	Dec-16	Domestic	Other	Turbine	BE20 - Beech 200 Super King	1	4	5	5	5	20	5
1544	Dec-16	Domestic	Other	Turbine	BE9L - Beech King Air 90	0	1	1	0	0	6	6
1545	Dec-16	Domestic	Other	Turbine	PAY2 - Piper Cheyenne 2	0	1	1	0	0	6	6
1546	Dec-16	Domestic	Air Taxi	Jet	C56X - Cessna Excel/XLS	2	1	3	30	15	15	15
1547	Dec-16	Domestic	Air Taxi	Jet	E55P - Embraer Phenom 300	1	1	2	8	8	8	8
Total:						**7,979**	**7,325**	**15,304**	**43,323**	**5**	**40,959**	**5**

/ed Feb 8 14:10:51 EST 2017

:s (TFMSC), Aviation System Performance Metrics (ASPM)

Appendix F

Socioeconomic Regression Analysis

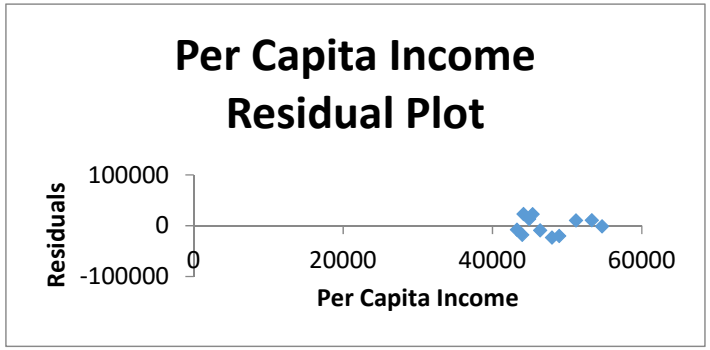
Regression Analysis - MYF Operations v. Per Capita Income (San Diego County)

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.170524
R Square	0.029078
Adjusted R Square	-0.0788
Standard Error	17813.42
Observations	11

ANOVA

	df	*SS*	*MS*	*F*	*ignificance F*
Regression	1	85531024	85531024	0.269544	0.616163
Residual	9	2.86E+09	3.17E+08		
Total	10	2.94E+09			



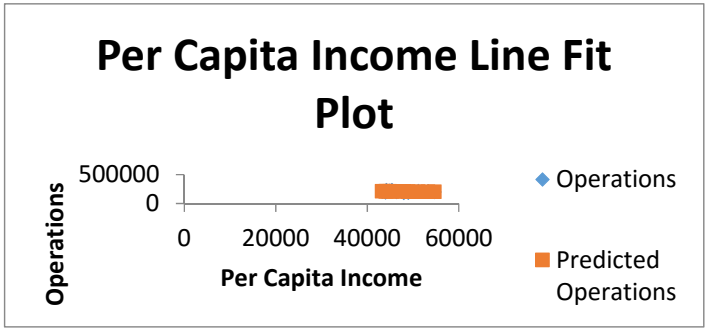
	Coefficients	*andard Erro*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*ower 95.0%*	*Jpper 95.0%*
Intercept	242714.6	68462.78	3.545205	0.006263	87841.01	397588.2	87841.01	397588.2
Per Capita Income	-0.74366	1.432381	-0.51918	0.616163	-3.98393	2.496613	-3.98393	2.496613

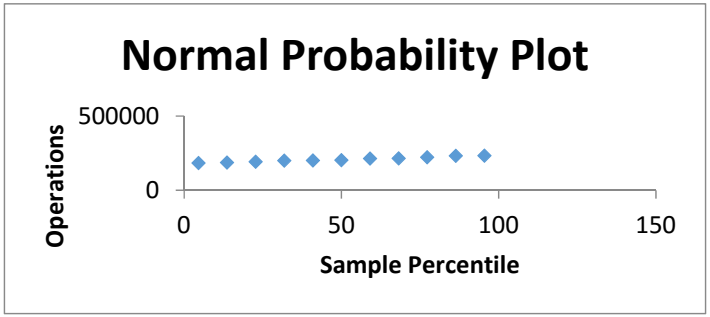
RESIDUAL OUTPUT

Observation	*'cted Opera*	*Residuals*
1	209882.1	22815.9
2	209315.4	13176.56
3	208965.2	22674.83
4	210537.3	-7909.27
5	209997.4	-18129.4
6	208228.2	-9087.21
7	207048	-23264
8	206321.5	-20129.5
9	204658.7	10461.35
10	203079.1	10768.88
11	202046.2	-1378.18

PROBABILITY OUTPUT

Percentile	*Operations*
4.545455	183784
13.63636	186192
22.72727	191868
31.81818	199141
40.90909	200668
50	202628
59.09091	213848
68.18182	215120
77.27273	222492
86.36364	231640
95.45455	232698

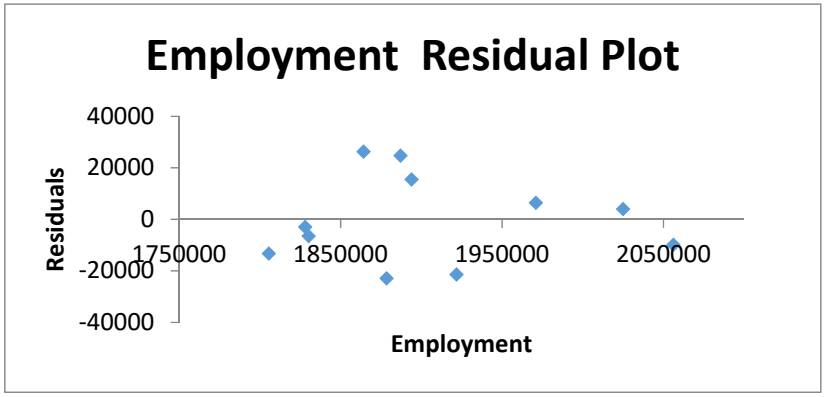




Regression Analysis - MYF Operations v. Employment (San Diego County)

SUMMARY OUTPUT

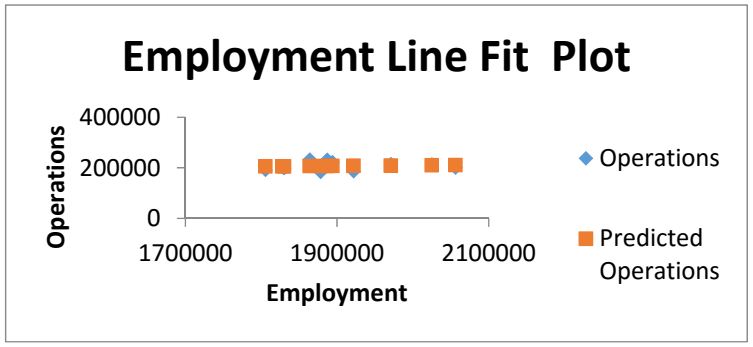
Regression Statistics	
Multiple R	0.102576
R Square	0.010522
Adjusted R Square	-0.09942
Standard Error	17982.84
Observations	11



ANOVA

	df	*SS*	*MS*	*F*	*ignificance F*
Regression	1	30949087	30949087	0.095704	0.764089
Residual	9	2.91E+09	3.23E+08		
Total	10	2.94E+09			

	Coefficients	*tandard Erro*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*ower 95.0%*	*Upper 95.0%*
Intercept	166048.3	133390.1	1.244832	0.244631	-135701	467797.7	-135701	467797.7
Employment	0.021637	0.069942	0.309361	0.764089	-0.13658	0.179856	-0.13658	0.179856

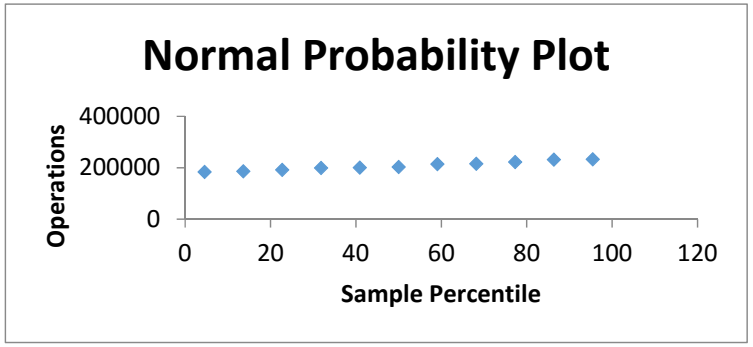


RESIDUAL OUTPUT

Observation	*icted Opera*	*Residuals*
1	206383.6	26314.44
2	207027.6	15464.36
3	206879.4	24760.58
4	205601.9	-2973.9
5	205115.7	-13247.7
6	205649.7	-6508.67
7	206694.1	-22910.1
8	207630	-21438
9	208694.1	6425.862
10	209864.1	3983.85
11	210538.8	-9870.8

PROBABILITY OUTPUT

Percentile	*Operations*
4.545455	183784
13.63636	186192
22.72727	191868
31.81818	199141
40.90909	200668
50	202628
59.09091	213848
68.18182	215120
77.27273	222492
86.36364	231640
95.45455	232698



Regression Analysis - MYF Operations v. Population (San Diego County)

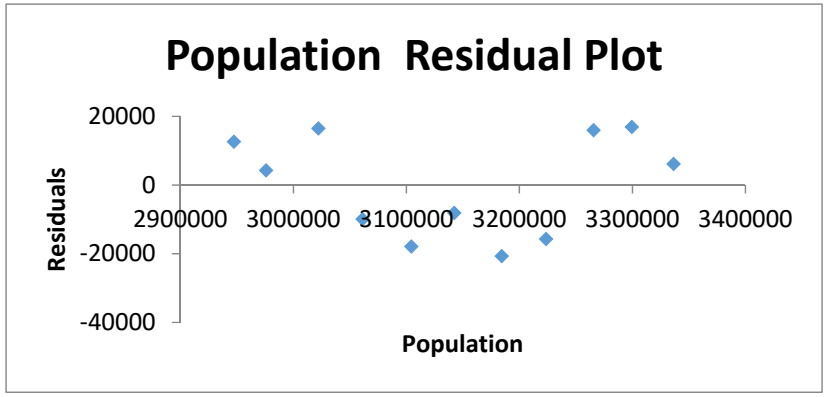
SUMMARY OUTPUT

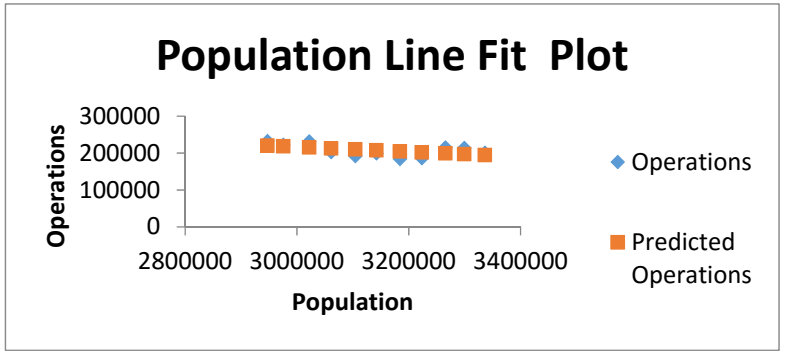
Regression Statistics	
Multiple R	0.505470257
R Square	0.255500181
Adjusted R Square	0.172777979
Standard Error	15598.66727
Observations	11

ANOVA

	df	*SS*	*MS*	*F*	*ignificance F*
Regression	1	7.52E+08	7.52E+08	3.088653	0.112713
Residual	9	2.19E+09	2.43E+08		
Total	10	2.94E+09			

	Coefficients	*andard Erro*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*ower 95.0%*	*Upper 95.0%*
Intercept	413632.7092	117509.8	3.519986	0.006516	147807.2	679458.2	147807.2	679458.2
Population	-0.06567442	0.037369	-1.75746	0.112713	-0.15021	0.01886	-0.15021	0.01886



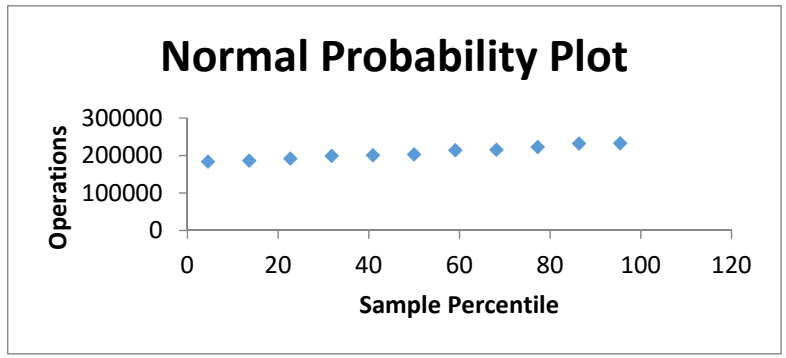


RESIDUAL OUTPUT

Observation	*dicted Operati*	*Residuals*
1	220071.2143	12626.79
2	218202.5801	4289.42
3	215156.9945	16483.01
4	212589.9785	-9961.98
5	209753.96	-17886
6	207266.8697	-8125.87
7	204501.8453	-20717.8
8	201921.6944	-15729.7
9	199159.7567	15960.24
10	196938.5821	16909.42
11	194515.5244	6152.476

PROBABILITY OUTPUT

Percentile	*Operations*
4.545455	183784
13.63636	186192
22.72727	191868
31.81818	199141
40.90909	200668
50	202628
59.09091	213848
68.18182	215120
77.27273	222492
86.36364	231640
95.45455	232698



Regression Analysis - MYF Based Aircraft v. Per Capita Income (San Diego County)

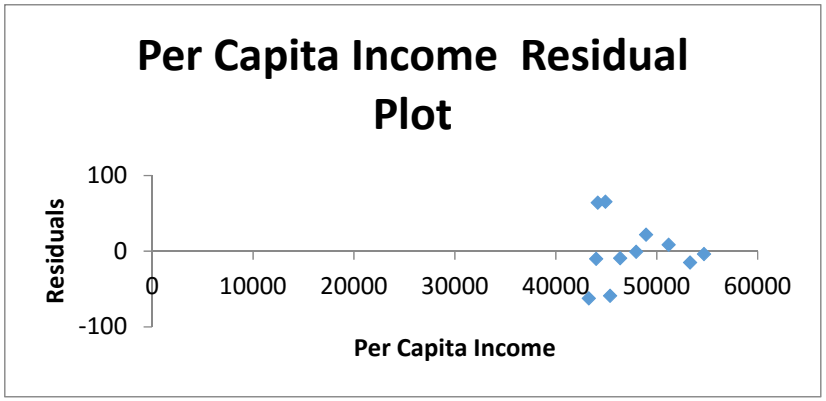
SUMMARY OUTPUT

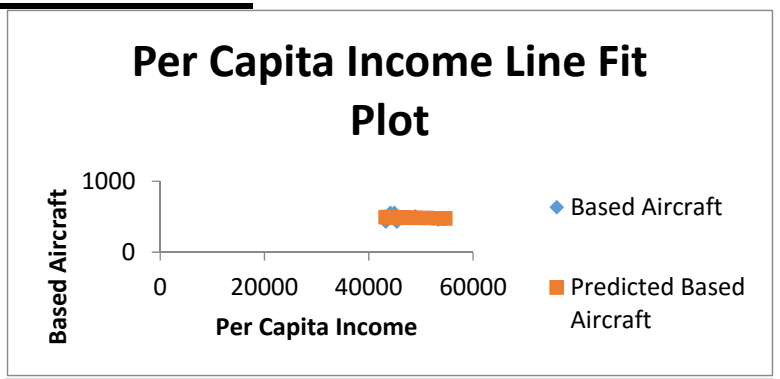
Regression Statistics	
Multiple R	0.155181289
R Square	0.024081232
Adjusted R Square	-0.084354186
Standard Error	43.09321929
Observations	11

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	412.4064	412.4064	0.222079	0.64867419
Residual	9	16713.23	1857.026		
Total	10	17125.64			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	562.990747	165.6213	3.399265	0.0078825	188.3293062	937.6522	188.3293	937.6522
Per Capita Income	-0.001632954	0.003465	-0.47125	0.6486742	-0.009471635	0.006206	-0.00947	0.006206



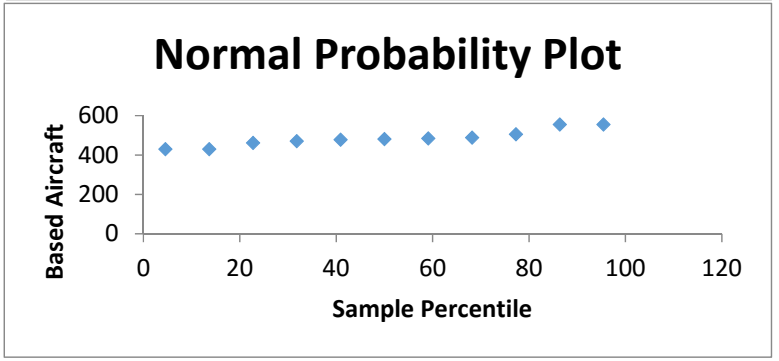


RESIDUAL OUTPUT

Observation	*Predicted Based Aircraft*	*Residuals*
1	490.8958216	64.10418
2	489.6515106	65.34849
3	488.8823892	-58.8824
4	492.3344542	-62.3345
5	491.1489295	-10.1489
6	487.2641316	-9.26413
7	484.6726334	-0.67263
8	483.0772372	21.92276
9	479.4259517	8.574048
10	475.9575571	-14.9576
11	473.6893838	-3.68938

PROBABILITY OUTPUT

Percentile	*Based Aircraft*
4.5454545	430
13.636364	430
22.727273	461
31.818182	470
40.909091	478
50	481
59.090909	484
68.181818	488
77.272727	505
86.363636	555
95.454545	555



Regression Analysis - MYF Based Aircraft v. Employment (San Diego County)

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.061939
R Square	0.003836
Adjusted R Squa	-0.10685
Standard Error	43.5379
Observations	11

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	65.70066	65.70066	0.034661	0.856437507
Residual	9	17059.94	1895.548		
Total	10	17125.64			

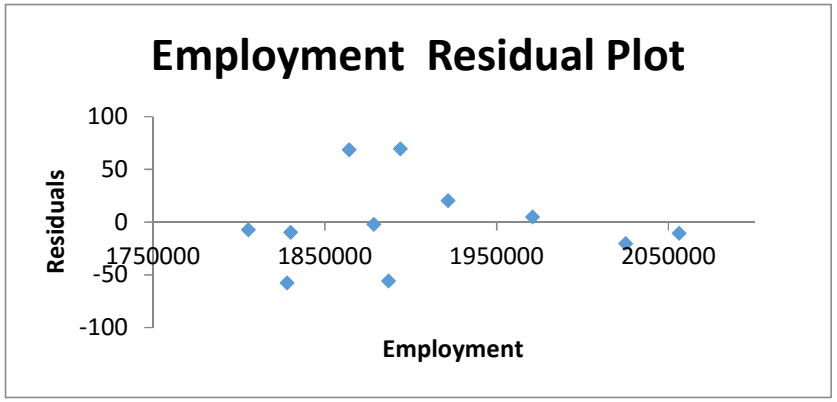
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	545.2565	322.9482	1.688371	0.125609	-185.3030594	1275.816	-185.303	1275.816
Employment	-3.2E-05	0.000169	-0.18617	0.856438	-0.000414587	0.000352	-0.00041	0.000352

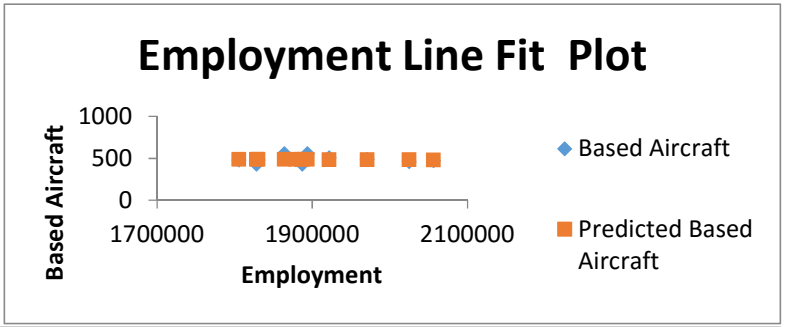
RESIDUAL OUTPUT

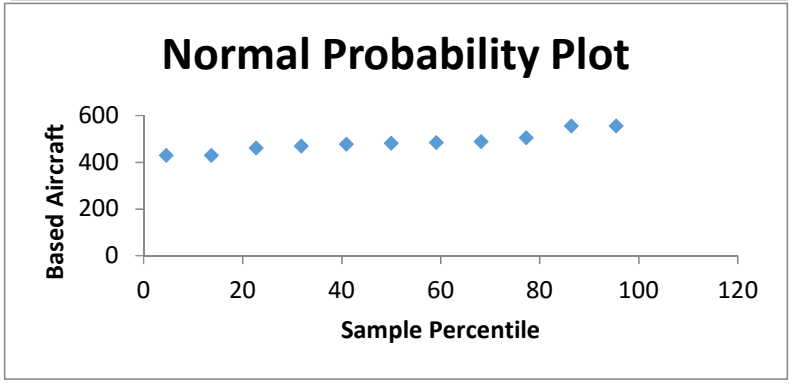
Observation	*Predicted Based Aircraft*	*Residuals*
1	486.4878	68.5122
2	485.5494	69.45062
3	485.7653	-55.7653
4	487.6267	-57.6267
5	488.3351	-7.33507
6	487.5571	-9.55708
7	486.0354	-2.03541
8	484.6718	20.3282
9	483.1213	4.87872
10	481.4166	-20.4166
11	480.4336	-10.4336

PROBABILITY OUTPUT

Percentile	*Based Aircraft*
4.545455	430
13.63636	430
22.72727	461
31.81818	470
40.90909	478
50	481
59.09091	484
68.18182	488
77.27273	505
86.36364	555
95.45455	555







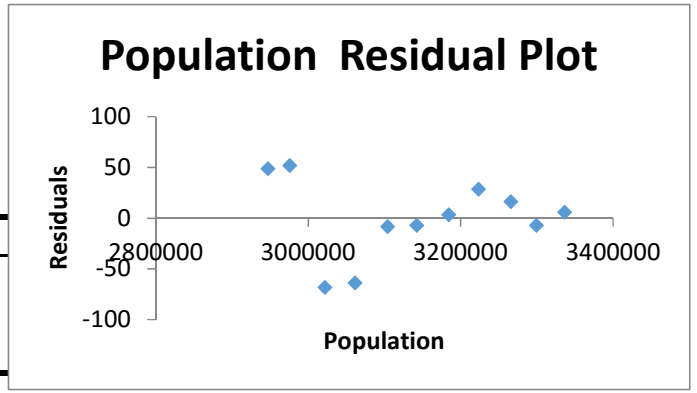
Regression Analysis - MYF Based Aircraft v. Population (San Diego County)

SUMMARY OUTPUT

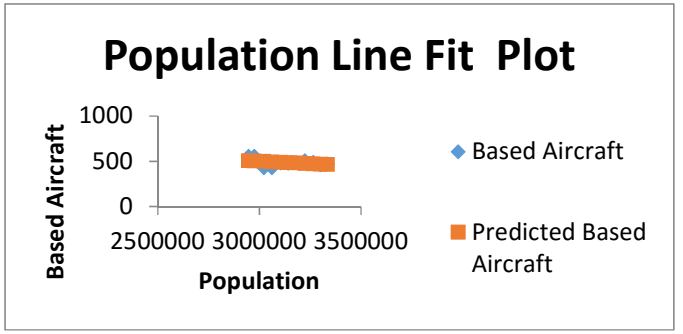
Regression Statistics	
Multiple R	0.344468528
R Square	0.118658567
Adjusted R Square	0.020731741
Standard Error	40.95191339
Observations	11

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	2032.103	2032.103	1.211706	0.299562635
Residual	9	15093.53	1677.059		
Total	10	17125.64			



	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	824.503193	308.5039	2.672586	0.025514	126.6189255	1522.387	126.6189	1522.387
Population	-0.000107993	9.81E-05	-1.10078	0.299563	-0.00032993	0.000114	-0.00033	0.000114

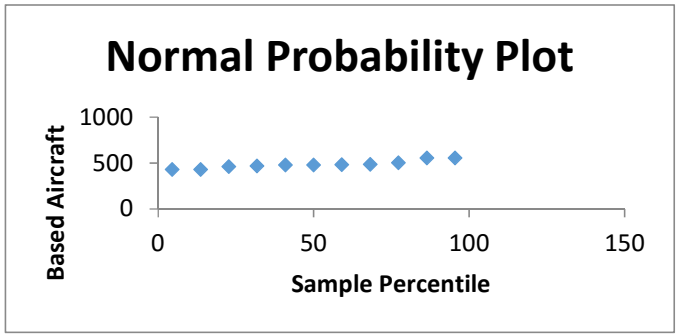


RESIDUAL OUTPUT

Observation	*Predicted Based Aircraft*	*Residuals*
1	506.2155201	48.78448
2	503.1427847	51.85722
3	498.1347001	-68.1347
4	493.9135632	-63.9136
5	489.2500855	-8.25009
6	485.1603766	-7.16038
7	480.6136397	3.38636
8	476.3709042	28.6291
9	471.829243	16.17076
10	468.1767992	-7.1768
11	464.1923838	5.807616

PROBABILITY OUTPUT

Percentile	*Based Aircraft*
4.545455	430
13.63636	430
22.72727	461
31.81818	470
40.90909	478
50	481
59.09091	484
68.18182	488
77.27273	505
86.36364	555
95.45455	555



Appendix G

Forecast Approval Letter

U.S. Department
of Transportation
**Federal Aviation
Administration**

Western-Pacific Region
Airports Division
Los Angeles Airports District Office

P.O. Box 92007
Los Angeles, CA 90009-2007

July 26, 2017

Wayne J. Reiter
Airports Program Manager, City of San Diego
3750 John J. Montgomery Drive
San Diego, CA 92123

Montgomery Gibbs-Executive Airport (MYF)
Aviation Activity Forecast Approval

Dear Mr. Reiter,

The Federal Aviation Administration (FAA) has reviewed the aviation forecast for the Montgomery Gibbs-Executive Airport (MYF) dated June 30, 2017. The FAA approves this forecast for airport planning purposes, including Airport Layout Plan development.

It is important to note that the approval of this forecast does not guarantee future funding for capital improvements that you may propose at MYF. Future projects will need to be justified by current activity levels reached at the time the projects are proposed for implementation and will need to be further analyzed for Airport Improvement Program eligibility purposes.

If you have any questions about this forecast approval, please call me at 310-725-3633.

Sincerely,

/s/

Brenda Pérez
Community Planner

Appendix H

Pavement Maintenance Management Plan (PMMP)

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Executive Summary

Atkins North America was retained by C&S Companies to prepare a Pavement Maintenance Management Plan (PMMP) report as part of the Airport Master Plan update for Montgomery-Gibbs Executive Airport (MYF).

Available information in as-built drawings and reports was entered in the PAVER pavement management software to prepare a pavement inventory for Montgomery-Gibbs Executive Airport as shown in **Table 2-1.** To facilitate the evaluation process, a pavement network definition was established in accordance with ASTM Standard D5340 as shown in **Figure 2-2** and **Figure 2-3**. The detailed PAVER reports are included in **Attachments A** to **C**.

A visual pavement inspection was conducted in August 2017. The collected condition data, such as distress types, severities and quantities, were entered in the PAVER software to calculate the current Pavement Condition Index (PCI). The PCI is a numerical score ranging from 100 (new) to 0 (failed) to rate the general condition of a pavement. The majority (67 percent) of airfield pavements at Montgomery-Gibbs Executive Airport are in fair to good condition and the remaining 33 percent are in poor condition. The average PCI values for runways, Runway 28R stopway, taxiways and aprons are 85, 93, 71, and 53, respectively, as of August 2017. The current PCI value of each section is shown in **Figure 3-4**.

A non-destructive testing (NDT) utilizing a Heavy Weight Deflectometer (HWD) was conducted to assess the subgrade strength. As a part of the evaluation, five pavement cores were taken to supplement the existing information. The pavement classification number (PCN) was calculated using the FAA COMFAA program based on analysis of traffic data, non-destructive testing, pavement cross section data, and available subsurface information. Three sections of Runways 10L/28R, 10R/28L and 5/23 were analyzed. The PCN codes of three runways are listed in **Table 4-5.**

A typical pavement performance curve is presented in **Figure 5-1** and the "right" timing of treatment is explained in **Figure 5-2**. Since the most economic maintenance option is to keep pavements in good repair, preventative maintenance activities are strongly recommended to be applied to pavements when the PCI falls within five points of the critical value (i.e., 70) as shown in **Table 5-1**. For pavements with PCI below 70 (i.e., the threshold of good condition), either restoration/rehabilitation and/or major reconstruction are needed. **Figure 5-6** illustrates the areas recommended for preventative treatment, rehabilitation and reconstruction. The estimated costs of preventative treatment and rehabilitation/restoration for the next five years are summarized in **Table 5-2** and **Table 5-3**. Although the cost estimates provide a useful network-level planning tool, they are not comprehensive engineer's estimates, as the cost is only pertinent to pavement construction cost. A detailed engineering study and the project specific cost estimates should be developed on a case-by-case basis to ensure the most appropriate rehabilitation strategy is chosen at the time of implementation.

A prioritized short-list of the Capital Improvement Program (CIP) is proposed in **Table 6-1**. The prioritization is based on the existing pavement condition, the operational importance and the known maintenance need expressed by the Airport. The five-year CIP exhibit for the Montgomery-Gibbs Executive Airport is shown in **Figure 5-6**. The airport can begin the grant application process at the earliest opportunity and apply stopgap treatment listed in **Table 5-2** while waiting for the funding approval. The estimated CIP cost excludes any administration cost, non-pavement related improvements, professional engineering fees, construction observation/inspection fees, annual escalation and contingencies. Cost estimates presented in this report are based on November 2017 dollars.

1 Introduction and Scope

This Pavement Maintenance Management Plan (PMMP) report was prepared for the C&S Companies as part of the Airport Master Plan study for Montgomery-Gibbs Executive Airport. The report organization and study effort are described in Section 1.2. The scope of work for the PMMP, is outlined in Section 1.3.

1.1 Report Organization

The report is divided into six chapters and one appendix.

- **Chapter 1, Introduction and Scope** - This chapter provides a brief background, report organization, and scope of work for Task 11, PMMP.
- **Chapter 2, Pavement Inventory and Network Definition** – This chapter presents the details of airfield pavement inventory and the network definition used in the pavement management program, PAVER 7.0.2.
- **Chapter 3, Pavement Condition Index** – This chapter documents the field visual inspection to rate the existing pavement conditions. An overall existing Pavement Condition Index (PCI) map is prepared for Montgomery-Gibbs Executive Airport.
- **Chapter 4, Pavement Classification Number** – This chapter reviews the existing and future traffic data. A non-destructive Heavy Weight Deflectometer (HWD) testing was conducted to facilitate the assessment of subgrade strength. The Pavement Classification Number (PCN) values for runways are calculated using the FAA Advisory Circular 150/5335-5C.
- **Chapter 5, Maintenance and Rehabilitation Plans and Budget Requirements** – This chapter suggests the viable near future maintenance options and provides the cost estimates for the longer-term rehabilitation and reconstruction using the existing PCI information presented in Chapter 3. It's noted that the presented cost reflects the material costs associated with the maintenance and rehabilitation strategies. All project overheads, administration, mobilization and professional engineering fees are EXCLUDED in the estimate.
- **Chapter 6, Recommended Capital Improvement Program and Prioritization** – This chapter recommends the prioritization of Capital Improvement Projects based on the operational importance of pavements, existing pavement conditions and available inputs from airport managers.
- **Appendix**
  - Attachment A: Branch Listing Report
  - Attachment B: Branch Condition Report
  - Attachment C: Section Condition Report
  - Attachment D: Pavement Inspection Report
  - Attachment E: Heavy Weight Deflectometer Testing Plan and Location
  - Attachment F: Pavement Coring Data
  - Attachment G: PCN Calculation Output

1.3 Scope of Work

Specific items of work included in Task 11, Pavement Maintenance Management Program, are outlined below.

a. Prepare a Pavement Maintenance Management Plan (PMMP) for Montgomery-Gibbs Executive Airport. The PMMP should include the following:

   i. Pavement inventory, structure and maintenance and rehabilitation (M&R) history;
   ii. Pavement condition and traffic;
   iii. Prediction of current and future Pavement Condition Index;
   iv. Determine optimum M&R Plans and budget requirements; and
   v. Formulate and prioritize M&R projects.

b. Determine the Pavement Classification Number values using the FAA Advisory Circular 150/5335-5C, *Standardized Method of Reporting Airport Pavement Strength – PCN*.

2 Pavement Inventory and Network Definition

A brief review of the pavement inventory is provided in this section along with a summary description of the pavement surface type. The section concludes with a narrative description of the pavement network accompanied by several graphics that depict the network.

2.1 Record Research and Pavement Inventory

To establish pavement inventory, available as-built drawings and record information such as pavement surface types, pavement thicknesses and composition, construction dates, and known M&R histories, were obtained from the Airport. The collected information was reviewed and entered in the PAVER 7.0.2 pavement management software. Using imagery from a recent aerial photogrammetry update for the Montgomery-Gibbs Executive Airport, a layout of the airfield pavement edges was created in AutoCAD software and served as the base map for the PMMP. For the Montgomery-Gibbs Executive Airport, all airfield pavements are asphalt surfaced (approximately 2,383,223 square feet). The existing airport diagram of Montgomery-Gibbs Executive Airport is shown in **Figure 2-1**.

Figure 2-1 Existing Facilities



Source: FAA

The pavement inventory summary for Montgomery-Gibbs Executive Airport is shown in **Table 2-1.**

Table 2-1 Pavement Inventory

Network ID	Branch ID	Branch Name	Branch Use	Section ID	Surface	True Area (SF)	Last Construction Date
MYF	R10L28R	RWY 10L/28R	RUNWAY	01L	AC	50,000	1/1/2013
MYF	R10L28R	RWY 10L/28R	RUNWAY	01K	AC	50,000	1/1/2013
MYF	R10L28R	RWY 10L/28R	RUNWAY	01R	AC	50,000	1/1/2013
MYF	R10L28R	RWY 10L/28R	RUNWAY	02L	AC	70,000	1/1/2013
MYF	R10L28R	RWY 10L/28R	RUNWAY	02K	AC	70,000	1/1/2013
MYF	R10L28R	RWY 10L/28R	RUNWAY	02R	AC	70,000	1/1/2013
MYF	R10L28R	RWY 10L/28R	RUNWAY	03L	AC	50,000	1/1/2013
MYF	R10L28R	RWY 10L/28R	RUNWAY	03K	AC	50,000	1/1/2013
MYF	R10L28R	RWY 10L/28R	RUNWAY	03R	AC	50,000	1/1/2013
MYF	OVER28R	RWY 28R Stopway	STOPWAY	01L	AAC	60,000	1/1/2013
MYF	OVER28R	RWY 28R Stopway	STOPWAY	01K	AAC	60,000	1/1/2013
MYF	OVER28R	RWY 28R Stopway	STOPWAY	01R	AAC	60,000	1/1/2013
MYF	R10R28L	RWY 10R/28L	RUNWAY	01	AAC[1]	26,400	9/1/1996[1]
MYF	R10R28L	RWY 10R/28L	RUNWAY	02	AC	17,400	11/1/2016
MYF	R10R28L	RWY 10R/28L	RUNWAY	03	AC	31,800	11/1/2016
MYF	R10R28L	RWY 10R/28L	RUNWAY	04	AAC[1]	122,400	9/1/1996[1]
MYF	R523	RWY 5/23	RUNWAY	01	AC	90,000	11/1/2016
MYF	R523	RWY 5/23	RUNWAY	02	AC	34,050	1/1/2013
MYF	R523	RWY 5/23	RUNWAY	03	AC	23,250	1/1/2013
MYF	R523	RWY 5/23	RUNWAY	04	AC	33,000	11/1/2016
MYF	R523	RWY 5/23	RUNWAY	05	AC	30,000	11/1/2016
MYF	R523	RWY 5/23	RUNWAY	06	AC	23,625	11/1/2016
MYF	R523	RWY 5/23	RUNWAY	07	AC	5,550	11/1/2016
MYF	TWA	Taxiway A	TAXIWAY	01	AAC	12,000	1/1/2013
MYF	TWA	Taxiway A	TAXIWAY	02	AC[1]	29,000	9/1/1996[1]
MYF	ATWA	TWY A Warm Up	APRON	01	AAC	19,800	1/1/2013
MYF	ATWA	TWY A Warm Up	APRON	02	AC[1]	2,500	9/1/1996[1]
MYF	TWB	Taxiway B	TAXIWAY	01	AAC	9,000	1/1/2013
MYF	TWB	Taxiway B	TAXIWAY	02	AAC[2]	11,000	7/1/1976[2]
MYF	TWB	Taxiway B	TAXIWAY	03	AAC[2]	9,750	7/1/1976[2]
MYF	TWB	Taxiway B	TAXIWAY	04	AAC[2]	5,600	7/1/1976[2]
MYF	ATWB	TWY B Warm Up	APRON	01	AAC[2]	9,000	7/1/1976[2]
MYF	TWC	Taxiway C	TAXIWAY	01	AC	9,000	11/1/2016
MYF	TWC	Taxiway C	TAXIWAY	02	AC[2]	43,000	7/1/1976[2]
MYF	TWC	Taxiway C	TAXIWAY	03	AAC	10,000	1/1/2013
MYF	TWC	Taxiway C	TAXIWAY	04	AAC	9,500	1/1/2013
MYF	TWC	Taxiway C	TAXIWAY	05	AAC[2]	10,750	7/1/1976[2]
MYF	TWC	Taxiway C	TAXIWAY	06	AC[2]	8,000	7/11/1985[2]
MYF	ATWC	TWY C Warm Up	APRON	01	AC	1,650	11/1/2016
MYF	ATWC	TWY C Warm Up	APRON	02	AC	4,200	7/1/1976
MYF	TWD	Taxiway D	TAXIWAY	01	AAC[2]	11,750	7/11/1969[2]
MYF	TWE	Taxiway E	TAXIWAY	01	AAC	13,250	1/1/2013
MYF	TWE	Taxiway E	TAXIWAY	02	AC	3,000	11/1/2016

Table 2-1 Pavement Inventory (cont'd.)

Network ID	Branch ID	Branch Name	Branch Use	Section ID	Surface	True Area (SF)	Last Construction Date
MYF	TWF	Taxiway F	TAXIWAY	01	AAC	8,500	1/1/2013
MYF	TWF	Taxiway F	TAXIWAY	02	AAC[1]	11,250	2/1/2008[1]
MYF	TWF	Taxiway F	TAXIWAY	03	AAC[1]	8,500	6/1/2009[1]
MYF	TWF	Taxiway F	TAXIWAY	04	AC	7,500	11/1/2016
MYF	TWF	Taxiway F	TAXIWAY	05	AAC[1]	19,250	6/1/2009[1]
MYF	TWF	Taxiway F	TAXIWAY	06	AC	10,000	11/1/2016
MYF	TWF	Taxiway F	TAXIWAY	07	AC	2,500	11/1/2016
MYF	TWG	Taxiway G	TAXIWAY	01	AC	5,000	11/1/2016
MYF	TWG	Taxiway G	TAXIWAY	02	AC	36,500	11/1/2016
MYF	TWG	Taxiway G	TAXIWAY	03	AC	8,500	11/1/2016
MYF	TWG	Taxiway G	TAXIWAY	04	AC	45,000	11/1/2016
MYF	TWG1	Taxiway G1	TAXIWAY	01	AC	5,750	11/1/2016
MYF	TWG1	Taxiway G1	TAXIWAY	02	AC	5,750	11/1/2016
MYF	TWH	Taxiway H	TAXIWAY	01	AC	17,800	11/1/2016
MYF	TWH	Taxiway H	TAXIWAY	02	AC	17,000	11/1/2016
MYF	TWH	Taxiway H	TAXIWAY	03	AAC[2]	57,200	7/1/1976[2]
MYF	TWH	Taxiway H	TAXIWAY	04	AAC[2]	38,600	7/1/1976[2]
MYF	TWH	Taxiway H	TAXIWAY	05	AC[1]	50,000	9/1/1996[1]
MYF	ATWH	TWY H Warm Up	APRON	01	AC	20,625	11/1/2016
MYF	HTW	Heli Taxiway	TAXIWAY	01	AC	8,550	7/1/1976
MYF	TWJ	Taxiway J	TAXIWAY	01	AAC[2]	7,400	7/1/1976[2]
MYF	TWK	Taxiway K	TAXIWAY	01	AAC[2]	97,750	7/1/1976[2]
MYF	TWL	Taxiway L	TAXIWAY	01	AC	5,000	11/1/2016
MYF	TWM	Taxiway M	TAXIWAY	01	AAC	13,200	1/1/2013
MYF	TWM	Taxiway M	TAXIWAY	02	AC	12,500	11/1/2016
MYF	AHANGAR	Hangar Apron	APRON	01	AC[2]	30,940	7/1/1981[2]
MYF	AHANGAR	Hangar Apron	APRON	02	AAC[2]	249,900	7/1/1981[2]
MYF	ATERM	Terminal Apron	APRON	01	AAC[2]	40,000	7/1/1976[2]
MYF	ATERM	Terminal Apron	APRON	02	AAC[2]	150,000	7/1/1976[2]

[1] Pavement history (i.e., pavement surface types and approximate construction dates) obtained from Google Earth.

[2] Pavement history obtained from the 2006 MYF Airport Pavement Management System (APMS) Report.

2.2 Network Definition

To facilitate the evaluation process, the pavement network was subdivided into manageable units in accordance with ASTM Standard D5340, *Standard Test Method for Airport Pavement Condition Index Surveys*. Network definition establishes an organized hierarchy system when dividing the airfield pavements into branches, sections and sample units. The subdivided pavement divisions are further explained as follows.

- Network: One single pavement network is established for all airfield pavements including runways, taxiways and aprons for each airport. For example, the Network ID for Montgomery-Gibbs Executive Airport is MYF.
- Branch: A branch is any identifiable part of the pavement network that serves a distinct function. For example, airfield pavements for individual runways, taxiways and aprons are

typically considered as separate branches.

- Section: A section is a subdivision of a branch that shares common characteristics such as pavement section, construction history, traffic and pavement condition.
- Sample Unit: A sample unit is a randomly selected portion of a pavement section for conducting visual inspections. It is the smallest subdivision in a pavement network. For asphalt surfaced pavements, each sample unit is typically 5,000 ± 2,000 square feet. For concrete surfaced pavements, each sample unit is typically 20 ± 8 slabs.

The network definition for Montgomery-Gibbs Executive Airport is illustrated in **Figure 2-2**. The sample units map used in the PCI survey (to be further discussed in Chapter 3) is shown in **Figure 2-3**. The detailed PAVER reports including branch listing report, branch condition report and section condition report are included in **Attachments A, B** and **C** respectively.

Figure 2-2 Network Definition Map

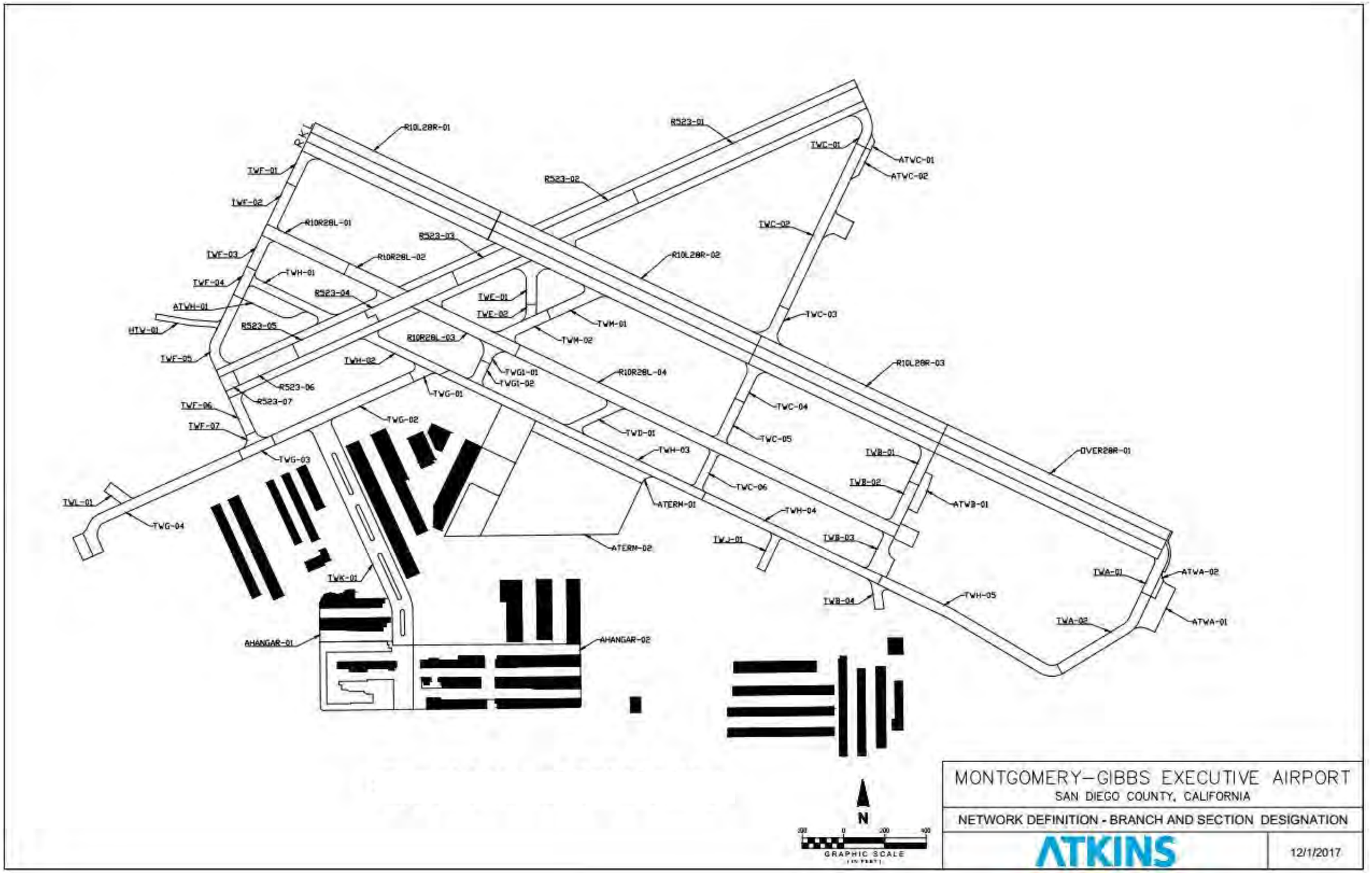
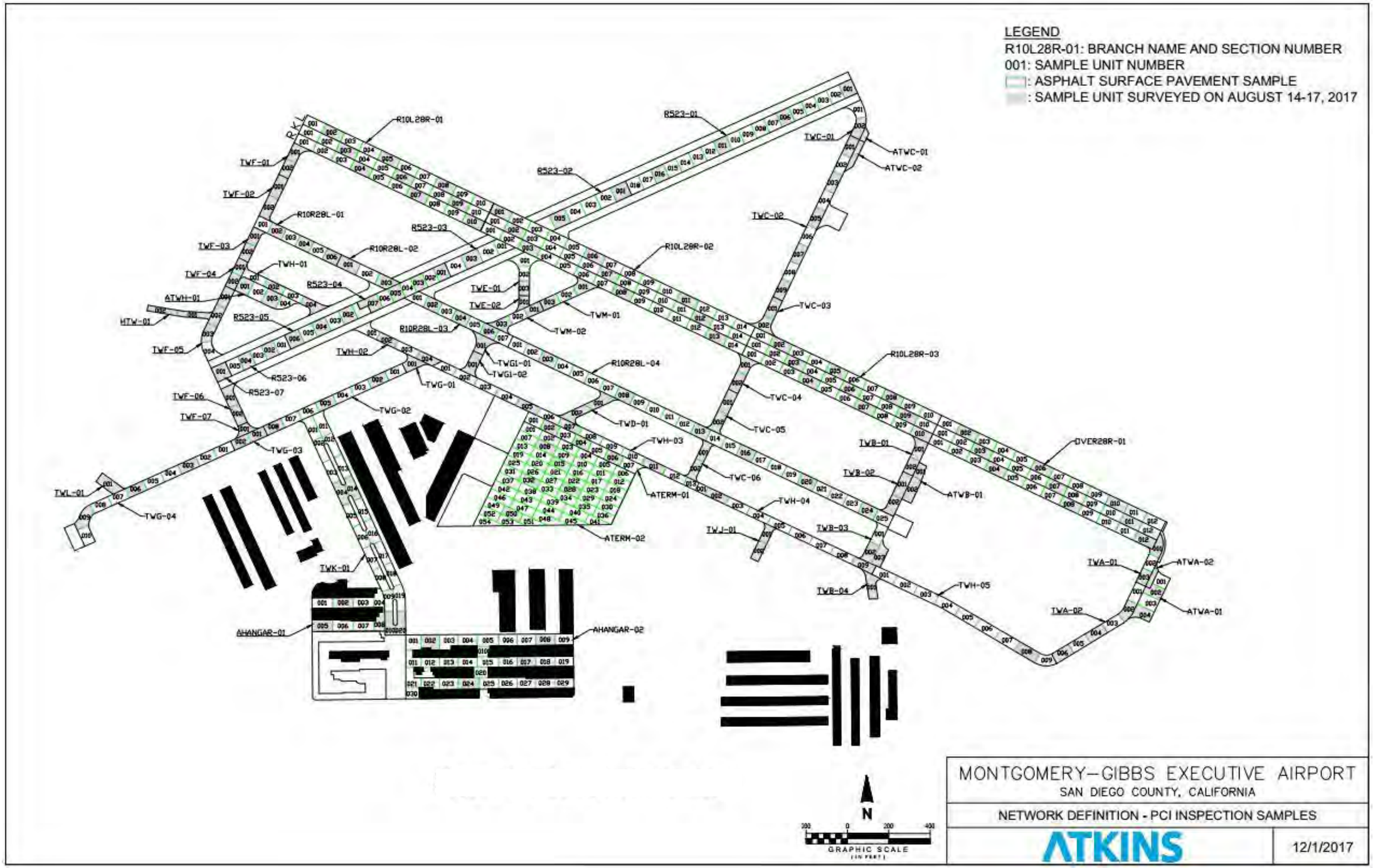


Figure 2-3 Sample Units Map



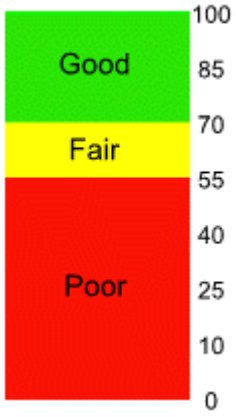
3 Pavement Condition Index (PCI)

Section 3 presents narrative and graphical data on the pavement condition and pavement condition index in 2017, the year the data was collected.

3.1 Visual Pavement Condition Survey

The Atkins team conducted a visual pavement inspection at Montgomery-Gibbs Executive Airport in August 2017. The collected condition data during the PCI inspections were entered in the PAVER 7.0.2 software to calculate the current PCI for each surveyed sample unit and section. The PCI is a numerical score ranging from 100 (new) to 0 (failed) to rate the general condition of a pavement. Three PCI categories used in this report are shown in **Figure 3-1**.

Figure 3-1 PCI Legend



The pavement area and the percentage of use for each branch of Montgomery-Gibbs Executive Airport are summarized in **Table 3-1**.

Table 3-1 Pavement Area and Percentage of Use

Branch Use	Area (square feet)	Percentage
Runway	948,905	39.8%
Runway 28R Stopway	180,150	7.6%
Taxiway	719,762	30.2%
Apron	534,406	22.4%
Total	2,383,223	100.0%

The commonly found distresses of asphalt surfaced pavements for Montgomery-Gibbs Executive Airport include the following:

- Longitudinal and transverse cracks
- Raveling and/ or weathering
- Fatigue (Alligator) cracking
- Block cracking
- Patching
- Depression

The detailed pavement inspection report including the distress types and severities for Montgomery-

Gibbs Executive Airport pavements is included in **Attachment D**.

3.2 Pavement Condition Index in 2017

The overall condition of the airfield pavements at Montgomery-Gibbs Executive Airport in 2017 is shown in **Figure 3-2**. The majority (67 percent) of airfield pavements are in fair to good condition. The remaining 33 percent of airfield pavements are in poor condition and needs a rehabilitation or re-construction. As shown in **Figure 3-3**, the average PCI values for runways, Runway 28R stopway, taxiways and aprons are 85, 93, 71, and 53, respectively. The area-weighted PCI for combined airfield pavements including runways, Runway 28R stopway area, taxiways and aprons is 75.

Figure 3-2 Overall Pavement Condition (August 2017)

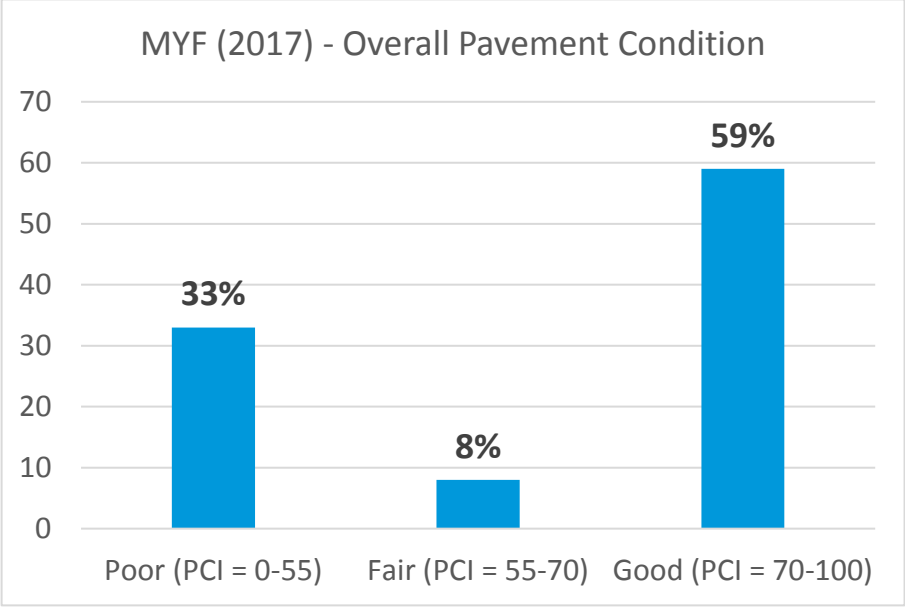
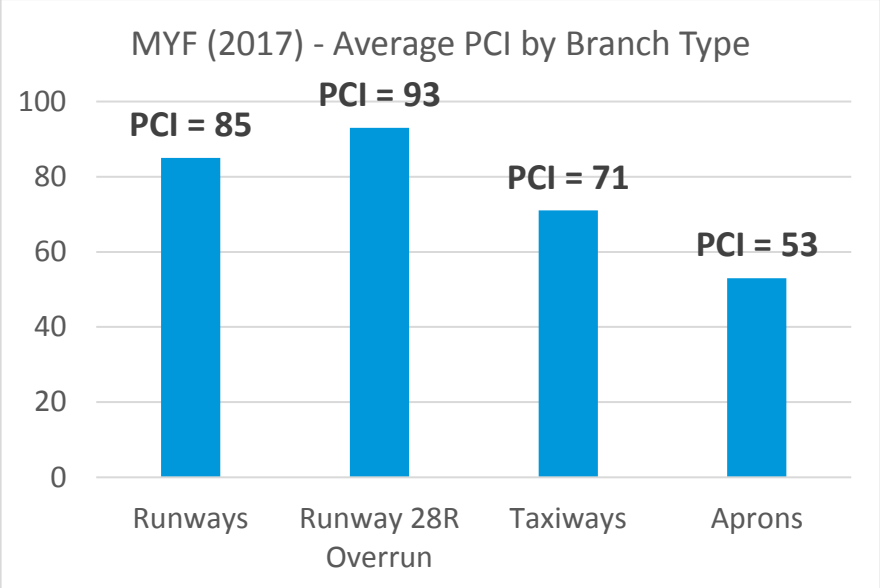


Figure 3-3 Area-Weighted Pavement Condition by Branch Use (August 2017)



The current PCI value of each section for Montgomery-Gibbs Executive Airport is shown in **Figure**

3-4. It is noted that the northern portion of Taxiway C (i.e., Section TWC-02) was milled and overlaid with a non-standard asphalt surface material (i.e., roadway asphalt concrete) instead of a standard FAA P-401 material. The material difference cannot be determined by a simple visual inspection. As a result, the reported PCI value of Section TWC-02 may not fully represent its current condition.

Figure 3-4 2017 Pavement Condition Index Map

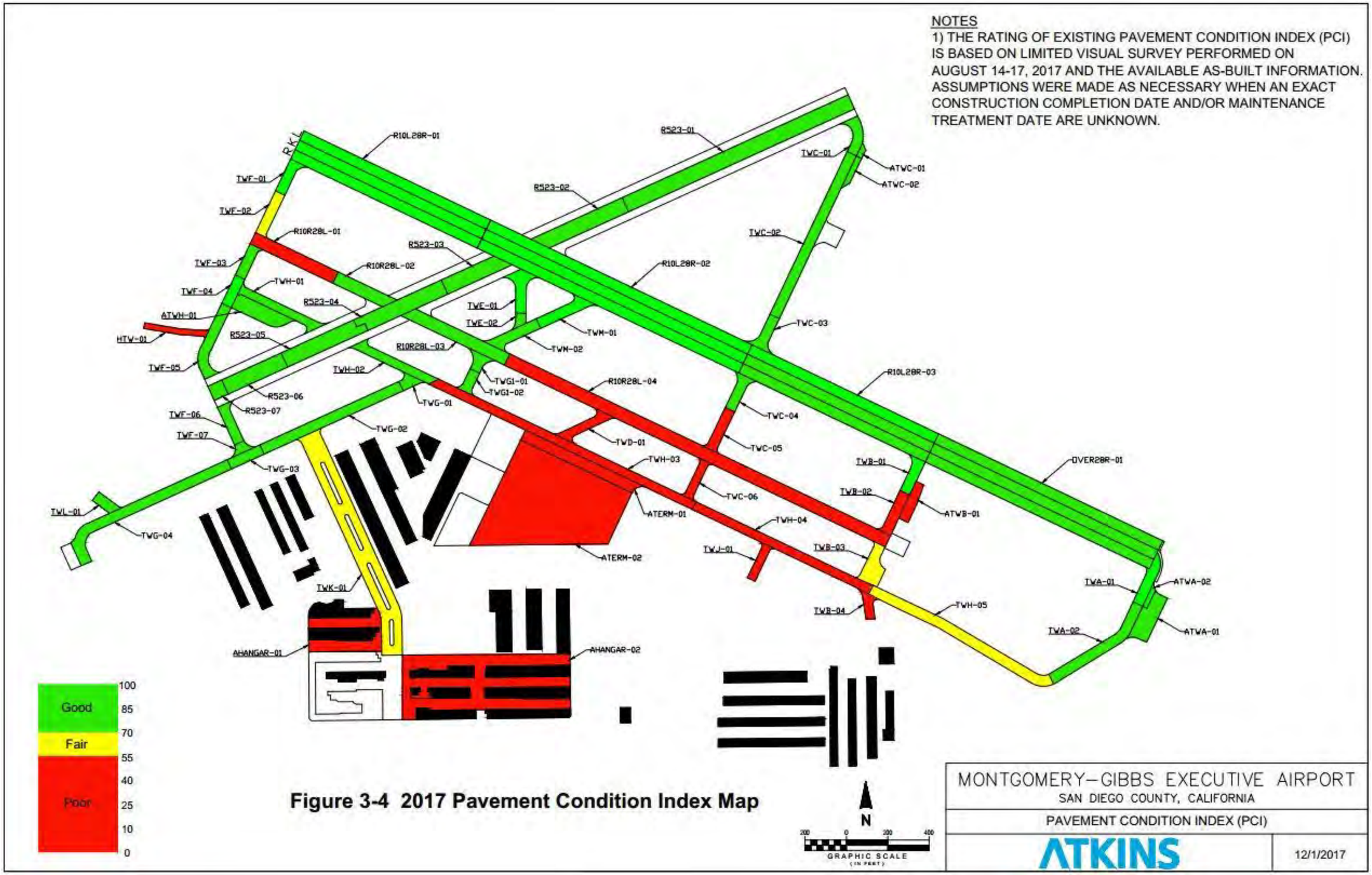


Figure 3-4 2017 Pavement Condition Index Map

4 Pavement Classification Number

This section contains the results of the pavement data analysis, a brief description of the testing methods, and calculation of the pavement classification number (PCN).

4.1 Traffic

Per the City of San Diego Airport Master Plans Initial Environmental Review report prepared in October 2017, the modeled 2017 average daily departures at the Montgomery-Gibbs Executive Airport are shown in **Table 4-1**. It is assumed that the traffic mix and departures will not change significantly in the foreseeable future. Thus, the aircraft types and departure data shown in **Table 4-1** can be used to determine Pavement Classification Number.

Table 4-1 2017 Average Daily Departures (from Table 4-22 Initial Environmental Review report dated October 2017)

Aircraft Type	Engine	Taxi Time (sec)	Stage Length	Annual Average Day Operations – Departures			
				Day	Evening	Night	Total
ECLIPSE500	PW610F-A	258.8	1	1.477	0.068	0.125	1.670
LEAR35	TFE731-2-2B[3]	258.8	1	0.224	0.010	0.019	0.253
LEAR35	TFE731-3	258.8	1	0.303	0.014	0.026	0.342
LEAR35	TFE731-2-2B[3]	258.8	1	0.090	0.004	0.008	0.102
CNA560U	JT15D-5,-5A,-5B	258.8	1	0.152	0.007	0.013	0.172
CNA560E	PW530	258.8	1	0.152	0.007	0.013	0.172
CNA55B	JT15D-5,-5A,-5B	258.8	1	0.369	0.017	0.031	0.418
CNA55B	PW530	258.8	1	0.369	0.017	0.031	0.418
CNA500	BIZLIGHTJET_F	258.8	1	1.312	0.060	0.111	1.484
CNA172	O-320	277.6	1	12.768	0.407	0.692	13.866
COMSEP	TIO-540-J2B2	277.6	1	1.880	0.060	0.102	2.042
GASEPF	O-200	277.6	1	4.543	0.145	0.246	4.934
GASEPF	PT6A-42	258.8	1	0.600	0.029	0.102	0.731
GASEPF	O-320	277.6	1	2.350	0.075	0.127	2.552
GASEPF	IO-360-B	277.6	1	2.350	0.075	0.127	2.552
GASEPV	TIO-540-J2B2[4]	277.6	1	46.398	1.478	2.515	50.390
GASEPV	TIO-540-J2B2[4]	277.6	1	19.611	0.625	1.063	21.299
BEC58P	TIO-540-J2B2	277.6	1	6.627	0.296	0.350	7.273
BEC58P	TIO540[5]	277.6	1	7.100	0.317	0.375	7.793
BEC58P	TIO540[5]	277.6	1	4.734	0.211	0.250	5.195
BEC58P	TIO540[5]	277.6	1	5.207	0.233	0.275	5.715
BEC58P	TIO540[5]	277.6	1	0.947	0.042	0.050	1.039
PA42	PT6A-114A	258.8	1	0.682	0.032	0.116	0.830
DHC6	PT6A-42	258.8	1	3.175	0.151	0.539	3.865
DHC6	TPE331-10	258.8	1	0.336	0.016	0.057	0.409
EC130	TPE331-3	277.6	1	0.943	0.140	0.292	1.375
R44	TIO-540-J2B2	277.6	1	0.754	0.112	0.233	1.100
SA355F	250B17B	277.6	1	1.179	0.175	0.365	1.718
Subtotal				**126.633**	**4.822**	**8.255**	**139.710**

[3] Repeated LEAR35 aircraft with engine type TFE731-2-2B indicate multiple AEDT equipment IDs used for airframe identification

[4] Repeated GASEPV aircraft with engine type TIO-540-J2B2 indicate multiple AEDT equipment IDs used for airframe identification

[5] Repeated BEC58P aircraft with engine type TIO540 indicate multiple AEDT equipment IDs used for airframe identification.

Note: Totals may not match exactly due to rounding. Repeated Aircraft and engine type indicates change in AEDT equipment ID.

4.2 Heavy Weight Deflectometer Testing

To better assess the structural integrity and the load-carrying capacity of the Montgomery-Gibbs Executive Airport pavements, a Non-Destructive Testing (NDT) utilizing a Heavy Weight Deflectometer (HWD) as shown in **Figure 4-1** was performed. The detailed testing plan and location can be found in **Attachment E**.



Source: Photo taken from https://www.dynatest.com/hwd website.

Figure 4-1 Dynatest Heavy Weight Deflectometer

The HWD creates an impulse load by dropping weights from a range of heights. This simulates the magnitude and duration of a moving aircraft wheel load. Three test loads (25, 35 and 45 kips) were applied in this study. The deflections were measured by sensors located at 0", 12", 18", 24", 36", 48", 60", 72" and 84" from the center of the load plate. The HWD test was conducted in general accordance with FAA Advisory Circular 150/5370-11, Use of Nondestructive Testing in the Evaluation of Airport Pavements.

The testing results (i.e., deflection data) and the pavement cross section information were used to back-calculate the in-situ material properties such as the subgrade characteristics. Together with the traffic data presented in Section 4.1, the pavement classification number was determined.

4.3 Pavement Cores

Five pavements cores were also taken in locations where the pavement cross section information cannot be obtained from historical review and prior geotechnical investigation. The pavement coring data is included in **Attachment F**.

4.4 Runway PCN Calculation

4.4.1 Traffic for PCN Calculation

A representative aircraft for each aircraft group/ type is shown in **Table 4-2** for PCN calculation. The annual departures were calculated using the total daily departures shown in **Table 4-1** and were rounded to the next highest integer.

Table 4-2 Fleet Mix and Traffic for Runway PCN Calculation

Aircraft Type per Table 4-1	Representative Aircraft in PCN Calculation	Gross Weight (lbs.)	Annual Departures
ECLIPSE500	Single Wheel Aircraft	5,950	610
LEAR35	Learjet-35A	18,000	255
CNA560U	Cessna Citation Ultra 560/ Citation-V	16,300	63
CNA560E	Cessna Citation Encore 560/ Citation-V	16,630	63
CNA55B	Cessna 550 Citation Bravo/ Citation-550B	14,800	306
CNA500	Cessna 500 Citation I/ Citation-525	11,850	542
CNA172	Cessna 172/ Single Wheel Aircraft	2,450	5,062
GASEPV	Beechcraft Bonanza 36/ Bonanza-F-36	3,650	26,167
BEC58P	Beechcraft Baron/ Baron-E-55	5,100	9,861
DHC6	de Havilland Canada DHC-6 Twin Otter/ Single Wheel Aircraft	12,500	1,561
EC130	Eurocopter EC130	5,351	502
PA42	Piper PA-42/ Single Wheel Aircraft	11,200	303
R44	Robinson R44 (helicopter)/ Single Wheel Aircraft	2,500	402
AS355F	Twin-engine light utility helicopter/ Single Wheel Aircraft	5,732	628
COMSEP	Single Wheel Aircraft	2,440	746
GASEPF	Single Wheel Aircraft	2,200	3,931

4.4.2 PCN for Runways

Computation of the PCN requires a subgrade modulus input for each section. The subgrade modulus was computed from the NDT deflection data using the FAA BAKFAA program. The data is summarized in **Table 4-3**.

Table 4-3 Back-calculation Result Using the FAA BAKFAA Program

Location	Surface Type	Estimated Existing Thicknesses[1]	Subgrade Modulus[2] (psi)	CBR[3]
10L/28R	Asphalt Concrete (AC)	3" AC + 6" P-208 + 6" P-154	11,529	7.7

[1] The existing pavement thicknesses were estimated using available as-builts.
[2] The modulus is calculated using the FAA BAKFAA program.
[3] E (Modulus) = 1500 x CBR per paragraph 3.13.5.3 in Advisory Circular 150/5320-6F.

During the report preparation, the Runway 5/23 geotechnical report prepared by Ninyo & Moore on August 30, 2011 was reviewed. In the report, 5 laboratory test results of California Bearing Ratio (CBR) were reported. Among those, three CBR values ranging from 6 to 13 with an average of 9.0 were reported for Runway 5/23.

As a part of Runway 10R/28L was also reconstructed in the Runway 5/23 rehabilitation project, the average subgrade CBR of Runway 28L is around 7.4 using all (i.e., five) reported CBR results included in the 2011 Runway 5/23 geotechnical report.

Based on the traffic information, back-calculation results, available geotechnical information and engineering judgements, the subgrade CBR is assumed/ estimated to be 7.7, 9.0 and 7.4 for Runway 10L/28R, Runway 5/23 and Runway 10R/28L, respectively.

The obtained numerical PCN values of runways using the FAA COMFAA program are summarized in **Table 4-4**. The PCN calculation of runways is included in **Attachment G**.

Table 4-4 PCN Results Using the FAA COMFAA Program

Runway Location/ Designation	Numerical PCN by COMFAA Program
10L/28R	48[1]
10R/28L	44
5/23	37

[1] The numerical PCN value may increase if the actual CBR test result is greater than 7.7 that is estimated using back-calculation.

The full PCN codes of all runways are included in **Table 4-5**. It is noted that the highest tire pressure (i.e. 171 psi) is from the Learjet 35 aircraft.

Table 4-5 Runway PCN Codes

Runway	PCN Code[1-6]
10L/28R	48/F/C/Y/T
10R/28L	44/F/C/Y/T
5/23	37/F/B/Y/T

[1] The first part of PCN code is a numerical value computed by the FAA COMFAA program.
[2] The second part of PCN code reports the pavement type. "F" denotes "flexible pavement".
[3] The third part of PCN code reports the subgrade strength category. "B" denotes "medium" strength with 8 < CBR < 13. "C" denotes "low" strength with 4 < CBR ≤ 8 for flexible pavements.
[4] The fourth part of PCN code reports the allowable tire pressure. "Y" denotes "medium" tire pressure with pressure limited to 181 psi.
[5] The last part of PCN code reports the method used to determine PCN. "T" denotes a technical evaluation method is used.
[6] The numerical PCN values are determined using AC 150/5335-5C. Refer to pages C-20 to C-23 for the process of adjusting the traffic input when the initial Cumulative Damage Factor (CDF) is too small.

5 Maintenance and Rehabilitation Plans and Budget Requirements

Section 5 summarizes the predicted performance of the pavements for the next five years and outlines options to address the situation.

5.1 Predicted Future (5-year) Pavement Condition Index

A typical pavement performance curve is illustrated in **Figure 5-1**. The pavement deterioration rate in general is slow when the condition is newer. It takes approximately three-quarters of the pavement life to reduce its condition by 40 percent. However, it only takes a short amount of time (e.g. 12 percent of pavement life) to decrease an additional 40 percent of its condition. Assuming no budget is available for maintenance and rehabilitation, the predicted PCI for all airfield pavements of Montgomery-Gibbs Executive Airport in the next 5 years is shown in **Table 5-1**. The predicted PCIs for each branch of airfield pavements are shown in **Figure 5-2** through **Figure 5-4**.

Figure 5-1 Standard Pavement Deterioration Curve

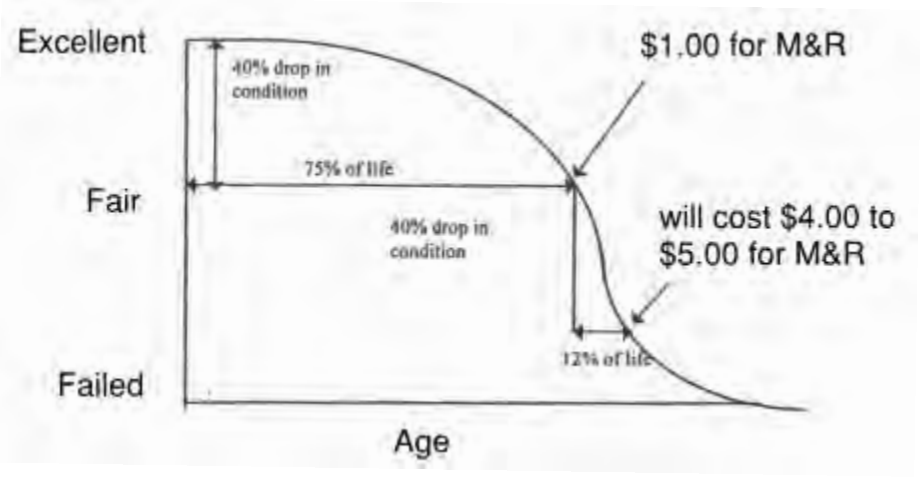
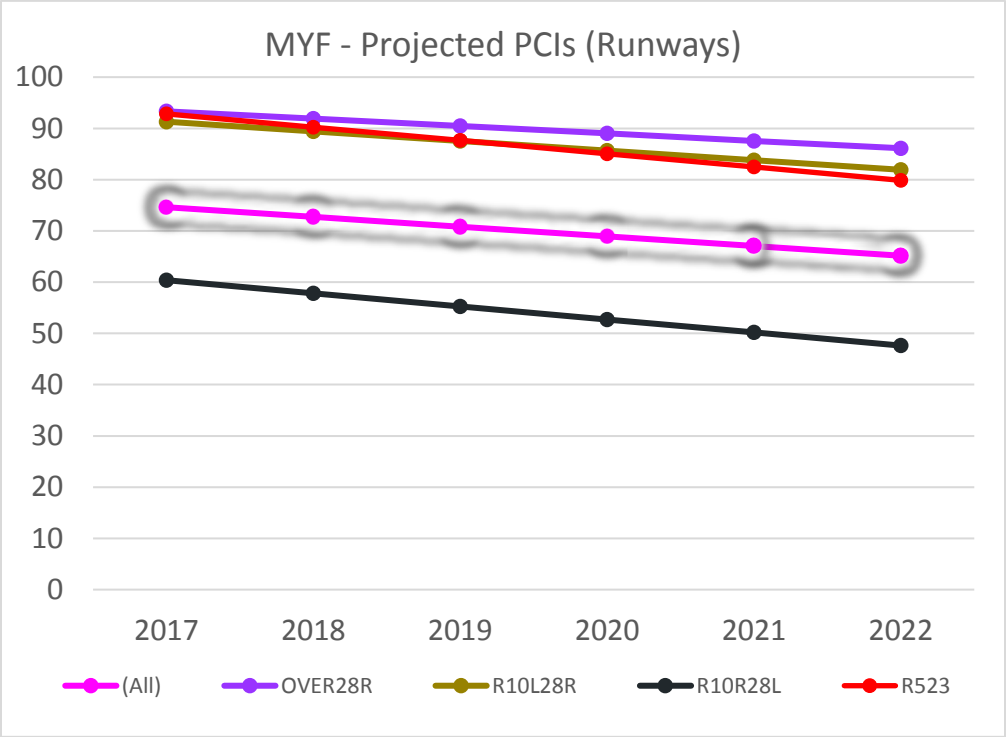


Table 5-1 Area-Weighted PCI for All Airfield Pavements (No Budget, Zero Maintenance)

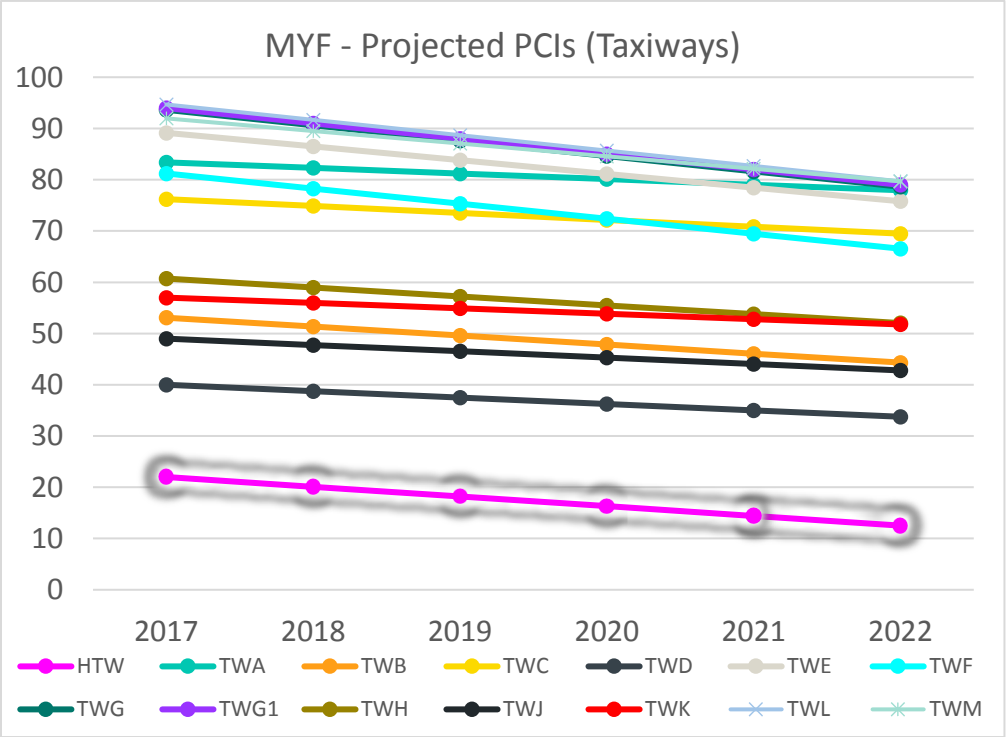
Year	Area-weighted PCI
2017	75
2018 (Year 1)	73
2019 (Year 2)	71
2020 (Year 3)	69
2021 (Year 4)	67
2022 (Year 5)	65

Figure 5-2 Area-Weighted PCI for Each Branch – Runways (No Budget, Zero Maintenance)



Source: Atkins

Figure 5-3 Area-Weighted PCI for Each Branch - Taxiways (No Budget, Zero Maintenance)



Source: Atkins

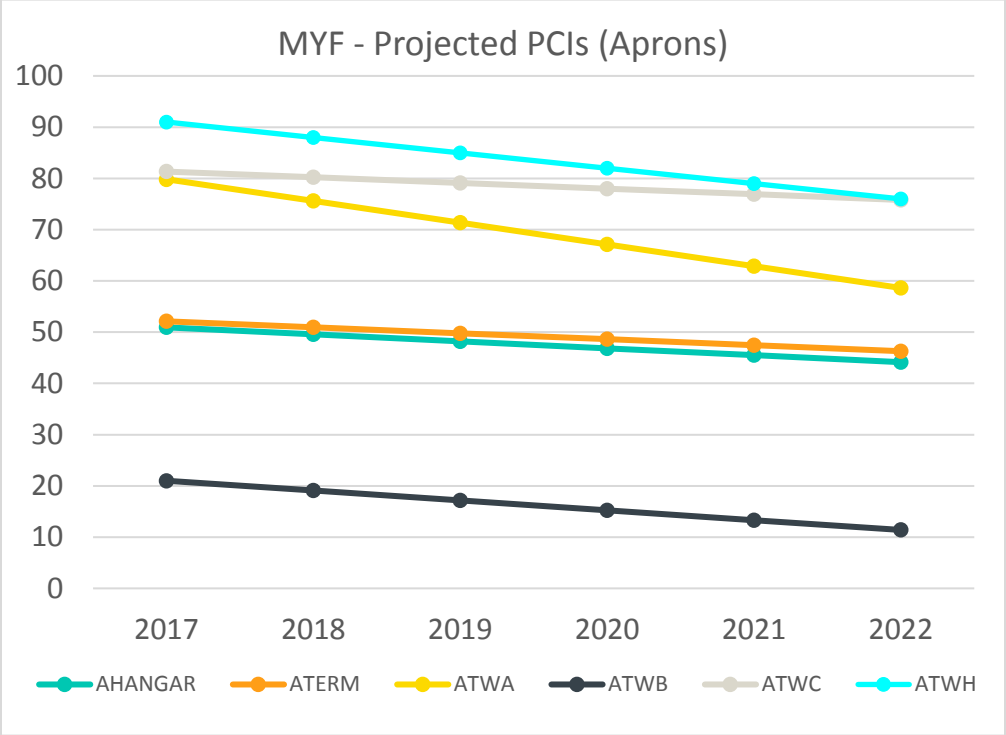


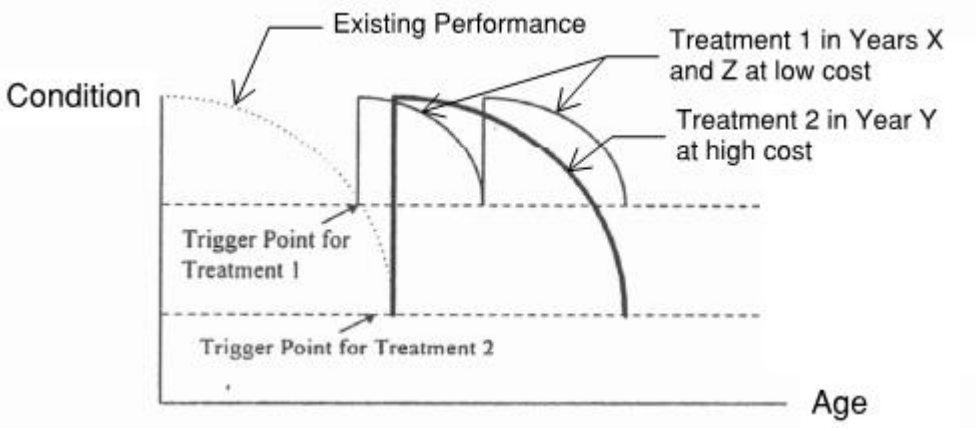
Figure 5-4 Area-Weighted PCI for Each Branch – Aprons (No Budget, Zero Maintenance)

5.2 Maintenance and Rehabilitation Options

5.2.1 Timing of Treatment

The most economic approach for pavement maintenance is to keep pavements in good repair. As illustrated in **Figure 5-5**, it is more cost effective to apply a low-cost treatment when a trigger point (critical PCI value) for Treatment 1 is reached. In other words, Treatment 1 can be applied multiple times throughout the pavement life once the critical PCI value is reached. If the right timing of treatment is missed, costly Treatment 2 will need to be applied to restore the pavement condition and to extend the pavement life. As shown in **Figure 5-5**, both options (Treatments 1 and 2) would extend the same amount of the pavement life. The higher cost Treatment 2 does not warrant a longer pavement life as the rate of deterioration increases significantly after the PCI drops below the critical value.

Figure 5-5 Timing of Treatment



5.2.2 Critical PCI Value, Maintenance Options and Cost Estimates

For the Montgomery-Gibbs Executive Airport, the critical PCI is set at 70. Once the airfield pavement falls within five points of the critical PCI (i.e., right above and below the threshold of good condition), those pavements will have a high priority to be maintained to stay within good condition. Applicable preventative treatments and unit costs are shown in **Table 5-2**.

Table 5-2 Preventative/ Stopgap Maintenance Options and Costs

Treatment Type Name	Unit Cost[1, 2]	
Crack Sealing – AC		$1.29 / Ft
Patching – AC Deep	$15.43 / SqFt	$138.87 / SqYd
Patching – AC Shallow	$12.86 / SqFt	$115.74 / SqYd
Surface Treatment	$0.34 / SqFt	$3.06 / SqYd

[1] The unit costs were collected from bid tabs from nearby airports in the FAA Western-Pacific Region and were escalated per Turner Building Cost Index – 2017 Third Quarter Forecast.

[2] The unit cost only reflects pavement related items. Non-pavement related costs such as electrical, drainage and geotechnical investigation etc. are EXCLUDED. The unit cost also EXCLUDES overhead, mobilization, engineering and construction observation fees, as well as contingencies.

The schedule and location to receive preventative treatments for Montgomery-Gibbs Executive Airport are shown in **Table 5-3**.

Table 5-3 Preventative Treatment Schedule

Year to Begin Preventative Treatment	Branch-Section	Surface Type	2017 PCI
2018	ATWC-01	Asphalt	72
2018	TWF-03	Asphalt	74
2019	TWF-05	Asphalt	76
2020	ATWA-01	Asphalt	78
2020	TWA-02	Asphalt	79
2021	R10L28R-03L	Asphalt	82
2021	R10L28R-02L	Asphalt	83
2022	TWC-02	Asphalt	83

[1] To be effective, preventative treatments should be applied when the airfield pavement falls within five points of the critical PCI (=70).

For pavements with a PCI below 70 (i.e., the threshold of good condition), either restoration/ rehabilitation and/or major reconstruction are needed in the foreseeable future. Pavements in fair (PCI = 70-55) condition can be restored to the good condition with lesser costs in comparison with pavements in poor condition (PCI = 55 or below). **Figure 5-6** illustrates the areas recommended for preventative treatment, rehabilitation and reconstruction.

The unit costs of major rehabilitation and reconstruction are shown in **Table 5-4**. The cost of major rehabilitation and reconstruction is estimated by multiplying a section's area by the unit cost listed in **Table 5-4**. These costs include pavement removal, subgrade preparation, base course construction and a pavement surface course.

Table 5-4 Maintenance and Rehabilitation/ Reconstruction Cost Based on PCI

PCI	Cost AC[1, 2]	Cost PCC[1, 2]
0-40	$12.86 / SqFt	$15.43 / SqFt
50	$7.07 / SqFt	$9.00 / SqFt
60	$3.86 / SqFt	$5.79 / SqFt
70	$2.89 / SqFt	$3.86 / SqFt
80	$0.96 / SqFt	$0.96 / SqFt
90	$0.64 / SqFt	$0.64 / SqFt
100	$0.00 / SqFt	$0.00 / SqFt

[1] The estimated costs were from nearby airports in Southern CA and were escalated per Turner Building Cost Index – 2017 Third Quarter Forecast.

[2] The cost only reflects pavement related items. Non-pavement related costs such as electrical, drainage and geotechnical investigation etc. are EXCLUDED. The unit cost also EXCLUDES overhead, mobilization, engineering and construction observation fees, as well as contingencies.

The estimated preventative treatment cost to keep good/ fair pavements (i.e., PCI greater than 65) above the threshold (i.e. PCI=70) is shown in **Table 5-5**. This estimate assumes ten percent of the asphalt pavement will receive a shallow and a deep asphalt patch in the next five years, respectively. The cost also assumes approximately 12,000 feet crack seal and one surface treatment for the asphalt pavements.

Table 5-5 Estimated Preventative Treatment Cost (2018-2022)

Plan Years	Annualized Preventative Treatment Cost[1] (Asphalt Pavement)
2018-2022	$156,000

[1] The estimate is based on the unit cost presented in **Table 5-4**. The cost only reflects pavement related items and EXCLUDES any administration, mobilization, utility work, engineering observation, annual escalation and contingencies.

Assuming an unlimited budget is available in the next five years, the estimated budget requirements for rehabilitation/ reconstruction (i.e., pavement PCI < 70) of each section are shown in **Table 5-6**. While the cost estimates provide a useful network-level planning tool, they are not comprehensive engineer's estimate as the cost is only pertinent to pavement construction cost. Administration cost, utility improvement (e.g., electrical, drainage etc.), construction phasing, mobilization, non-pavement related items (e.g., subsurface investigation, surveying etc.), professional engineer's fee, annual escalation and contingencies are excluded in the estimate. A detailed engineering study and the project specific cost estimates shall be developed on a case-by-case basis to ensure the most appropriate rehabilitation strategy is chosen at the time of implementation.

Figure 5-6 Recommended Treatments

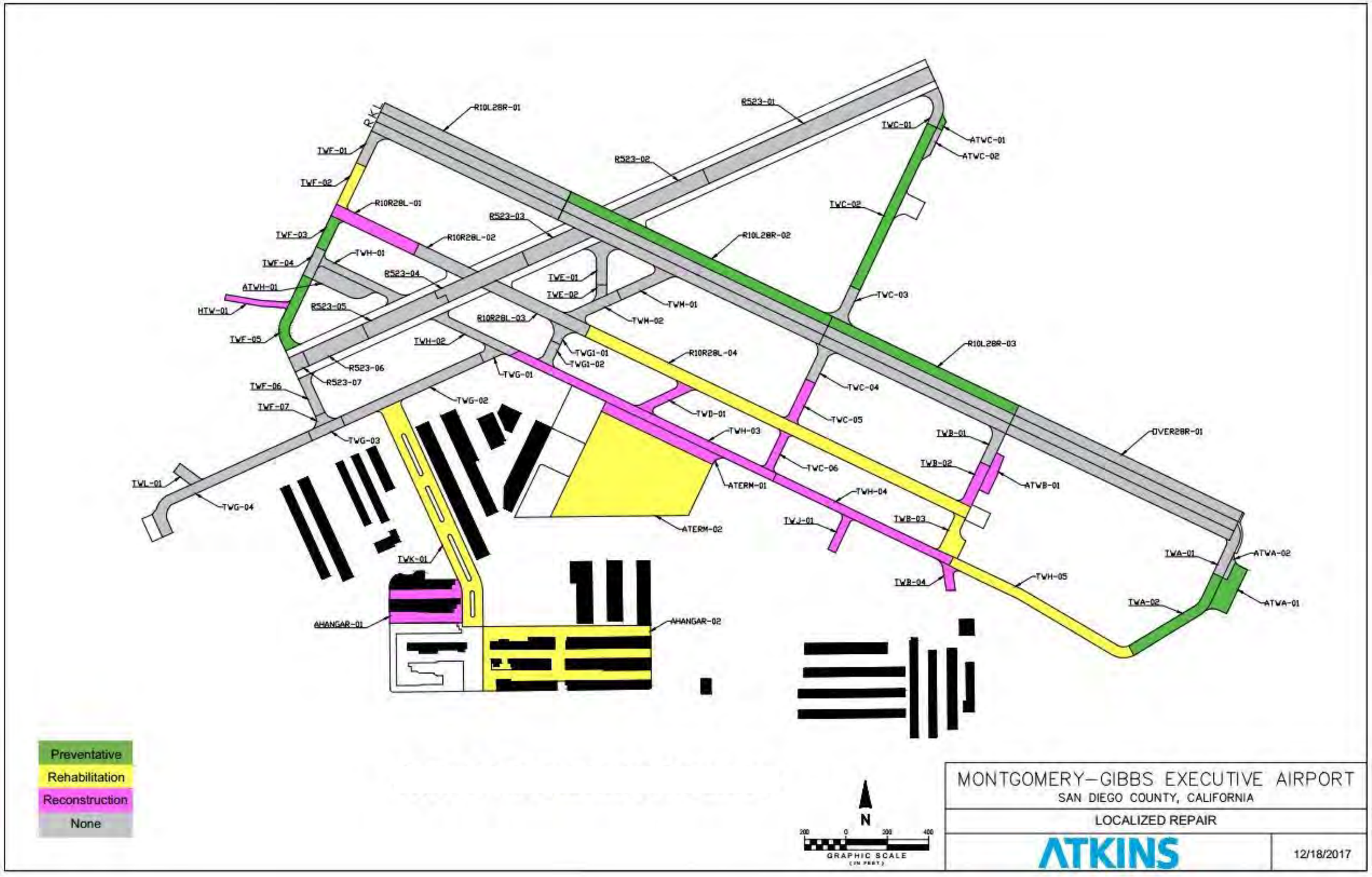


Table 5-6 Estimated Rehabilitation/ Restoration and Reconstruction Costs (2018-2022), Unconstrainted Budget

Branch ID	Section ID	Treatment	Total Rehabilitation/ Reconstruction Cost[1] (2018-2022)	Annualized Rehabilitation/ Reconstruction Cost[1] (Over 5 years)
AHANGAR	02	Restoration/ Rehabilitation	$1,777,000	
R10R28L	04	Restoration/ Rehabilitation	$865,000	
ATERM	02	Restoration/ Rehabilitation	$1,075,000	
TWK	01	Restoration/ Rehabilitation	$723,000	$947,000
TWB	03	Restoration/ Rehabilitation	$59,000	
TWF	02	Restoration/ Rehabilitation	$43,000	
TWH	05	Restoration/ Rehabilitation	$193,000	
5-year Subtotal (Restoration/ Rehabilitation)			**$4,735,000**	
TWB	02	Reconstruction	$146,000	
ATWB	01	Reconstruction	$120,000	
HTW	01	Reconstruction	$111,000	
R10R28L	01	Reconstruction	$342,000	
TWC	05	Reconstruction	$142,000	
AHANGAR	01	Reconstruction	$412,000	
TWD	01	Reconstruction	$152,000	$695,000
TWC	06	Reconstruction	$109,000	
ATERM	01	Reconstruction	$521,000	
TWB	04	Reconstruction	$79,000	
TWH	03	Reconstruction	$740,000	
TWH	04	Reconstruction	$502,000	
TWJ	01	Reconstruction	$99,000	
5-year Subtotal (Reconstruction)			**$3,475,000**	
5-year Grand Total			**$8,210,000**	**$1,642,000**

[1] The estimate is based on the unit cost presented in **Table 5-4**. The cost only reflects pavement related items and EXCLUDES any administration, mobilization, utility work, detailed engineering, structural observation, annual escalation and contingencies.

Per recent budgetary information provided by the Airport, it can take time for grant application and funding approval to support planned pavement maintenance, rehabilitation and reconstruction. Stopgap treatments as shown in **Table 5-6** can be applied to maintain the airport pavements safe and operational while application for funding to support the planned maintenance, rehabilitation and reconstruction is being approved.

6 CIP Recommendation and Prioritization

As an unlimited budget is unlikely to be available to support all identified rehabilitation and reconstruction needs shown in **Table 5-6**, a list of the Capital Improvement Program (CIP) projects are proposed in **Table 6-1**. The prioritization is based on the following.

- The existing pavement condition presented in **Figure 3-2**.
- The operational importance presented in **Figure 6-1**. In general, runway pavements will have the highest priority to be maintained followed by the taxiway and apron pavements.
- The existing maintenance need (e.g., Taxiway K) identified by the Airport.

Table 6-1 The Proposed 5-year CIP Program and Priority

Priority	Plan Year	Branch-Section	Cost [1]
1	2018	R10R28L-01	$342,000
2	2018	TWB-02	$146,000
3	2018	HTW-01	$111,000
4	2018	TWK-01	$723,000
5	2019	R10R28L-04	$865,000
5	2019	TWC-05	$142,000
7	2019	TWC-06	$109,000
8	2019	ATWB-01	$120,000
9	2020	TWD-01	$152,000
10	2020	TWB-04	$79,000
11	2020	TWH-03	$740,000
12	2020	AHANGAR-01	$412,000
13	2021	TWH-04	$502,000
14	2021	TWB-03	$59,000
15	2021	ATERM-01	$521,000
16	2021	AHANGAR-02	$1,777,000
17	2022	TWJ-01	$99,000
18	2022	TWF-02	$43,000
19	2022	TWH-05	$193,000
20	2022	ATERM-02	$1,075,000

[1] Refer to Section 5.2.2 for unit costs based on PCIs. The cost only reflects pavement related items and EXCLUDES any administration, mobilization, utility work, detailed engineering, structural observation, annual escalation and contingencies.

The five-year CIP exhibit for the Montgomery-Gibbs Executive Airport is shown in **Figure 6-2**.

The airport can begin the grant application process at the earliest opportunity and apply stopgap treatment as discussed in Chapter 5 while waiting for the funding approval. As iterated in Section 5.2.2, the estimated CIP cost excludes any administration cost, non-pavement related improvements (e.g., utilities), professional engineering fee, construction observation fees, annual escalation and contingencies. Cost estimates presented in this report are based on November 2017 dollars.

Figure 6-1 Section Ranks

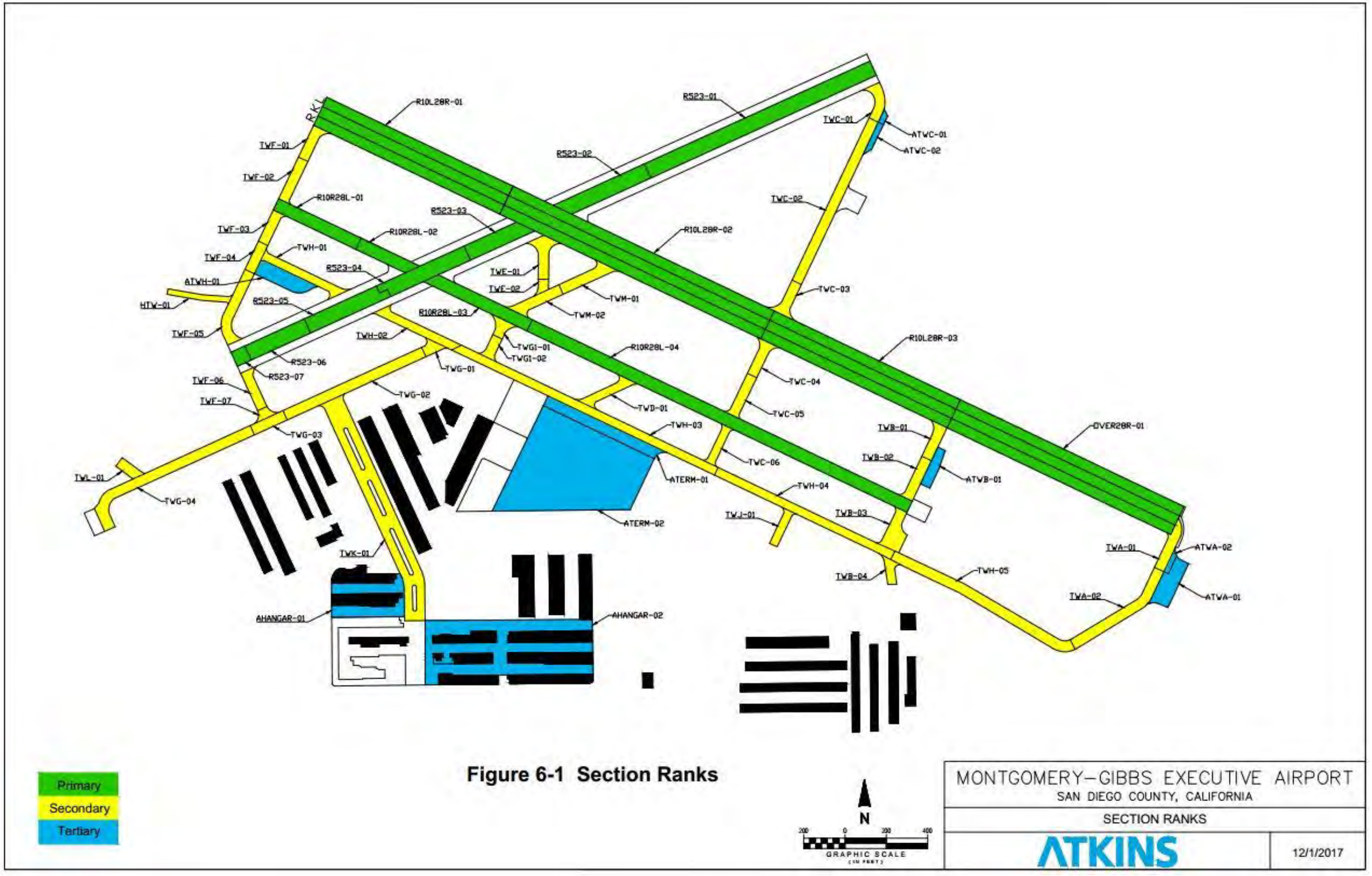


Figure 6-1 Section Ranks

Figure 6-2 Recommended Capital Improvement Program (2018-2022)

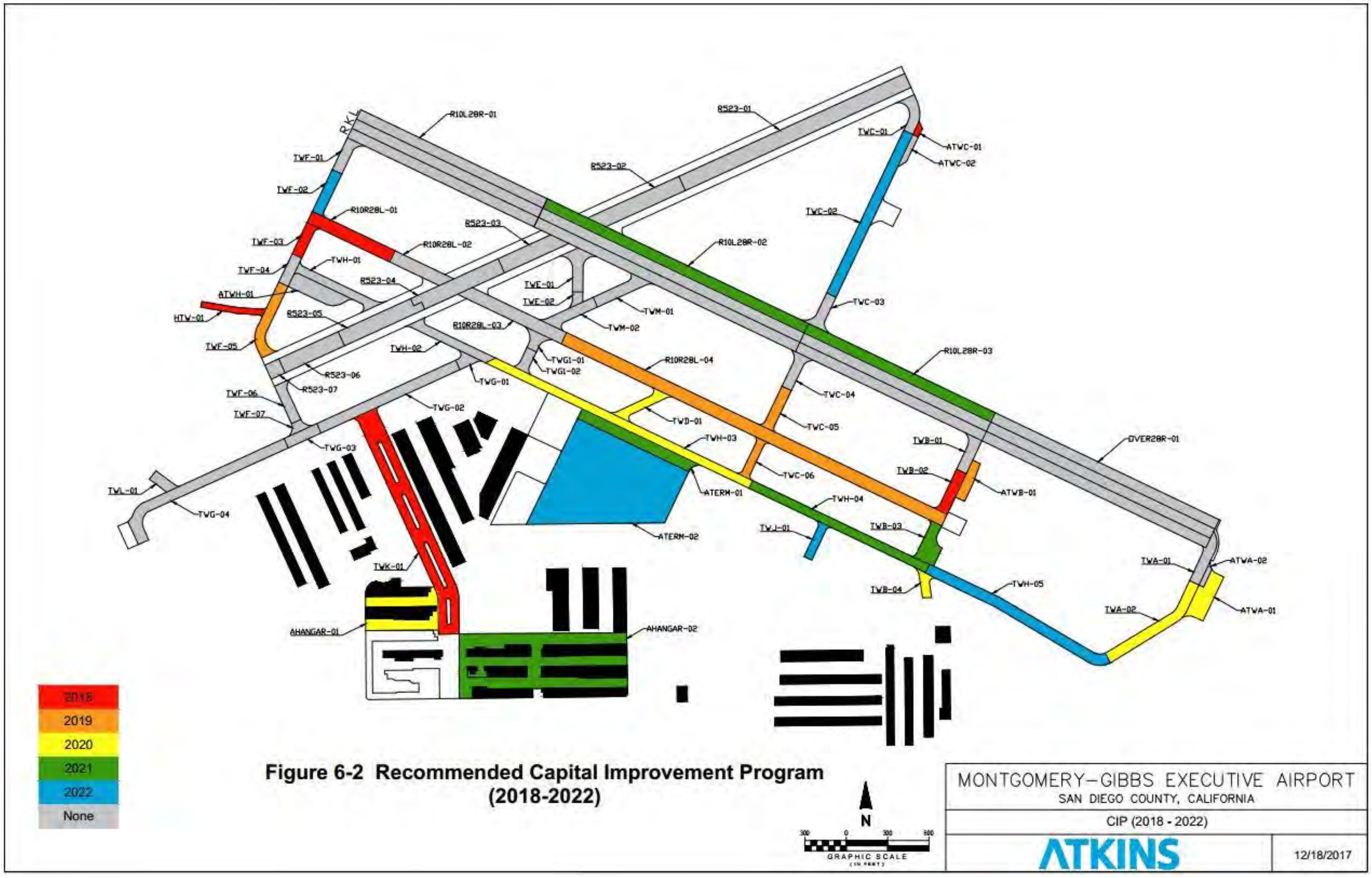


Figure 6-2 Recommended Capital Improvement Program (2018-2022)

Attachment A Branch Listing Report

11/15/2017
Branch Listing Report
Pavement Database: MYF 11-14-2017
Page 1 of 2

Network ID	Branch ID	Name	Use	Number of Sections	True Area (SF)	Comments
MYF	AHANGAR	Hangar Apron	APRON	2	283,339.00	
MYF	ATERM	Terminal Apron	APRON	2	192,613.00	
MYF	ATWA	Taxiway A Warm Up	APRON	2	22,674.00	
MYF	ATWB	Taxiway B Warm Up	APRON	1	9,288.00	
MYF	ATWC	Taxiway C Warm Up	APRON	2	5,850.00	
MYF	ATWH	Taxiway H Warm Up	APRON	1	20,642.00	
MYF	HTW	Heli Taxiway	TAXIWAY	1	8,598.00	
MYF	OVER28R	Stopway RWY 28R	STOPWAY	3	180,150.00	
MYF	R10L28R	RWY 10L/28R	RUNWAY	9	510,150.00	
MYF	R10R28L	RWY 10R/28L	RUNWAY	4	198,279.00	
MYF	R523	RWY 5/23	RUNWAY	7	240,476.00	
MYF	TWA	Taxiway A	TAXIWAY	2	41,304.00	
MYF	TWB	Taxiway B	TAXIWAY	4	42,538.00	
MYF	TWC	Taxiway C	TAXIWAY	6	92,436.00	
MYF	TWD	Taxiway D	TAXIWAY	1	11,820.00	
MYF	TWE	Taxiway E	TAXIWAY	2	16,803.00	
MYF	TWF	Taxiway F	TAXIWAY	7	69,865.00	
MYF	TWG	Taxiway G	TAXIWAY	4	97,845.00	
MYF	TWG1	Taxiway G1	TAXIWAY	2	12,254.00	
MYF	TWH	Taxiway H	TAXIWAY	5	182,427.00	
MYF	TWJ	Taxiway J	TAXIWAY	1	7,671.00	
MYF	TWK	Taxiway K	TAXIWAY	1	102,350.00	
MYF	TWL	Taxiway L	TAXIWAY	1	6,137.00	
MYF	TWM	Taxiway M	TAXIWAY	2	27,714.00	

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11/15/20
Branch Listing Report (Summary)
Pavement Database: MYF 11-14-2017
Page 2 of 2

Total Number of Networks: 1
Total Number of Branches: 24
Total Number of Sections: 72
Total True Area: 2,383,223.00 (SqFt)
Average Branch True Area: 99,300.96 (SqFt)

Attachment B Branch Condition Report

11/15/2017
Branch Condition Report
Pavement Database: MYF 11-14-2017
Page 1 of 2

Branch ID	Number of Sections	Sum Section Length (Ft)	Avg Section Width (Ft)	True Area (SqFt)	Use	Average PCI	Standard Deviation PCI	Weighted Average PCI
AHANGAR	2	472.00	595.00	283,339.00	APRON	45.50	5.50	49.76
ATERM	2	3,800.00	50.00	192,613.00	APRON	49.50	4.50	52.11
ATWA	2	320.00	57.50	22,674.00	APRON	86.00	8.00	79.83
ATWB	1	200.00	45.00	9,288.00	APRON	21.00	0.00	21.00
ATWC	2	195.00	30.00	5,850.00	APRON	78.50	6.50	81.33
ATWH	1	275.00	75.00	20,642.00	APRON	91.00	0.00	91.00
HTW	1	285.00	30.00	8,598.00	TAXIWAY	22.00	0.00	22.00
OVER28R	3	3,600.00	50.00	180,150.00	STOPWAY	93.33	0.47	93.33
R10L28R	9	10,200.0	50.00	510,150.00	RUNWAY	91.44	4.79	91.31
R10R28L	4	0	60.00	198,279.00	RUNWAY	68.00	25.43	60.38
R523	7	3,300.00	75.00	240,476.00	RUNWAY	93.14	1.12	92.83
TWA	2	3,193.00	50.00	41,304.00	TAXIWAY	86.50	7.50	83.39
TWB	4	820.00	47.50	42,538.00	TAXIWAY	53.00	24.14	53.08
TWC	6	735.00	48.33	92,436.00	TAXIWAY	72.33	23.13	76.21
TWD	1	1,845.00	50.00	11,820.00	TAXIWAY	40.00	0.00	40.00
TWE	2	235.00	50.00	16,803.00	TAXIWAY	91.00	3.00	89.15
TWF	7	325.00	50.00	69,865.00	TAXIWAY	83.86	12.12	81.22
TWG	4	1,350.00	50.00	97,845.00	TAXIWAY	92.25	3.03	93.64
TWG1	2	1,900.00	50.00	12,254.00	TAXIWAY	94.00	0.00	94.00
TWH	5	230.00	42.00	182,427.00	TAXIWAY	68.60	20.08	60.72
TWJ	1	4,265.00	40.00	7,671.00	TAXIWAY	49.00	0.00	49.00
TWK	1	185.00	85.00	102,350.00	TAXIWAY	57.00	0.00	57.00
TWL	1	1,150.00	50.00	6,137.00	TAXIWAY	94.00	0.00	94.00
TWM	2	100.00	50.00	27,714.00	TAXIWAY	92.00	1.00	91.97
		514.00						

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11/15/2017
Branch Condition Report
Pavement Database: MYF 11-14-2017
Page 2 of 2

Use Category	Number of Sections	Total Area (SqFt)	Arithmetic Average PCI	Standard Deviation PCI	Weighted Average PCI
APRON	10	534406.000163356	63.10	23.19	53.32
STOPWAY	3	180150.000055068	93.33	0.47	93.33
RUNWAY	20	948905.000290058	87.35	15.30	85.23
TAXIWAY	39	719762.000220015	75.23	22.73	71.28
ALL	72	2383223.0007285	77.67	22.10	74.48

Attachment C Section Condition Report

Pavement Database: MYF 11-14-2017

Branch ID	Section ID	Last Const. Date	Surface	Use	Rank	Lanes	True Area (SqFt)	Last Inspection	Age At Inspec	PCI
NetworkId: MYF										
AHANGAR	01	7/1/1981	AC	APRON	T	0	32,023.00	8/18/2017	36	40
AHANGAR	02	7/1/1981	AAC	APRON	T	0	251,316.00	8/18/2017	36	51
ATERM	01	7/1/1976	AAC	APRON	T	0	40,550.00	8/18/2017	41	45
ATERM	02	7/1/1976	AAC	APRON	T	0	152,063.00	8/18/2017	41	54
ATWA	01	1/1/2013	AAC	APRON	T	0	20,080.00	8/18/2017	4	78
ATWA	02	9/1/1996	AC	APRON	T	0	2,594.00	8/18/2017	21	94
ATWB	01	7/1/1976	AAC	APRON	T	0	9,288.00	8/18/2017	41	21
ATWC	01	11/1/2016	AC	APRON	T	0	1,650.00	8/18/2017	1	72
ATWC	02	7/1/1976	AC	APRON	T	0	4,200.00	8/18/2017	41	85
ATWH	01	11/1/2016	AC	APRON	T	0	20,642.00	8/18/2017	1	91
HTW	01	7/1/1976	AC	TAXIWAY	S	0	8,598.00	8/18/2017	41	22
OVER28R	01K	1/1/2013	AAC	OVERRUN	P	0	60,050.00	8/18/2017	4	93
OVER28R	01L	1/1/2013	AAC	OVERRUN	P	0	60,050.00	8/18/2017	4	94
OVER28R	01R	1/1/2013	AAC	OVERRUN	P	0	60,050.00	8/18/2017	4	93
R10L28R	01K	1/1/2013	AC	RUNWAY	P	0	50,000.00	8/18/2017	4	94
R10L28R	01L	1/1/2013	AC	RUNWAY	P	0	50,000.00	8/18/2017	4	94
R10L28R	01R	1/1/2013	AC	RUNWAY	P	0	50,000.00	8/18/2017	4	94
R10L28R	02K	1/1/2013	AC	RUNWAY	P	0	70,050.00	8/18/2017	4	94
R10L28R	02L	1/1/2013	AC	RUNWAY	P	0	70,050.00	8/18/2017	4	83
R10L28R	02R	1/1/2013	AC	RUNWAY	P	0	70,050.00	8/18/2017	4	94
R10L28R	03K	1/1/2013	AC	RUNWAY	P	0	50,000.00	8/18/2017	4	94
R10L28R	03L	1/1/2013	AC	RUNWAY	P	0	50,000.00	8/18/2017	4	82
R10L28R	03R	1/1/2013	AC	RUNWAY	P	0	50,000.00	8/18/2017	4	94
R10R28L	01	9/1/1996	AAC	RUNWAY	P	0	26,575.00	8/18/2017	21	34
R10R28L	02	11/1/2016	AC	RUNWAY	P	0	17,442.00	8/18/2017	1	91
R10R28L	03	11/1/2016	AC	RUNWAY	P	0	31,852.00	8/18/2017	1	94
R10R28L	04	9/1/1996	AAC	RUNWAY	P	0	122,410.00	8/18/2017	21	53
R523	01	11/1/2016	AC	RUNWAY	P	0	90,030.00	8/18/2017	1	92
R523	02	1/1/2013	AC	RUNWAY	P	0	34,058.00	8/18/2017	4	94
R523	03	1/1/2013	AC	RUNWAY	P	0	23,348.00	8/18/2017	4	94
R523	04	11/1/2016	AC	RUNWAY	P	0	33,364.00	8/18/2017	1	94
R523	05	11/1/2016	AC	RUNWAY	P	0	30,455.00	8/18/2017	1	93
R523	06	11/1/2016	AC	RUNWAY	P	0	23,635.00	8/18/2017	1	91
R523	07	11/1/2016	AC	RUNWAY	P	0	5,586.00	8/18/2017	1	94
TWA	01	1/1/2013	AAC	TAXIWAY	S	0	12,102.00	8/18/2017	4	94
TWA	02	9/1/1996	AC	TAXIWAY	S	0	29,202.00	8/18/2017	21	79
TWB	01	1/1/2013	AAC	TAXIWAY	S	0	9,642.00	8/18/2017	4	86
TWB	02	7/1/1976	AAC	TAXIWAY	S	0	11,358.00	8/18/2017	41	19
TWB	03	7/1/1976	AAC	TAXIWAY	S	0	15,423.00	8/18/2017	41	60
TWB	04	7/1/1976	AAC	TAXIWAY	S	0	6,115.00	8/18/2017	41	47
TWC	01	11/1/2016	AC	TAXIWAY	S	0	9,744.00	8/18/2017	1	92
TWC	02	7/1/1976	AC	TAXIWAY	S	0	43,094.00	8/18/2017	41	83
TWC	03	1/1/2013	AAC	TAXIWAY	S	0	10,160.00	8/18/2017	4	92
TWC	04	1/1/2013	AAC	TAXIWAY	S	0	9,940.00	8/18/2017	4	87
TWC	05	7/1/1976	AAC	TAXIWAY	S	0	11,030.00	8/18/2017	41	37
TWC	06	7/11/1985	AC	TAXIWAY	S	0	8,468.00	8/18/2017	32	43
TWD	01	7/11/1969	AAC	TAXIWAY	S	0	11,820.00	8/18/2017	48	40

Pavement Database: MYF 11-14-2017

Branch ID	Section ID	Last Const. Date	Surface	Use	Rank	Lanes	True Area (SqFt)	Last Inspection	Age At Inspec	PCI
TWE	01	1/1/2013	AAC	TAXIWAY	S	0	13,575.00	8/18/2017	4	88
TWE	02	11/1/2016	AC	TAXIWAY	S	0	3,228.00	8/18/2017	1	94
TWF	01	1/1/2013	AAC	TAXIWAY	S	0	9,205.00	8/18/2017	4	94
TWF	02	2/1/2008	AAC	TAXIWAY	S	0	11,362.00	8/18/2017	9	62
TWF	03	6/1/2009	AAC	TAXIWAY	S	0	8,575.00	8/19/2017	8	74
TWF	04	11/1/2016	AC	TAXIWAY	S	0	7,598.00	8/18/2017	1	94
TWF	05	6/1/2009	AAC	TAXIWAY	S	0	19,325.00	8/18/2017	8	76
TWF	06	11/1/2016	AC	TAXIWAY	S	0	10,220.00	8/18/2017	1	93
TWF	07	11/1/2016	AC	TAXIWAY	S	0	3,580.00	8/18/2017	1	94
TWG	01	11/1/2016	AC	TAXIWAY	S	0	5,040.00	8/18/2017	1	87
TWG	02	11/1/2016	AC	TAXIWAY	S	0	36,735.00	8/18/2017	1	94
TWG	03	11/1/2016	AC	TAXIWAY	S	0	8,645.00	8/18/2017	1	94
TWG	04	11/1/2016	AC	TAXIWAY	S	0	47,425.00	8/18/2017	1	94
TWG1	01	11/1/2016	AC	TAXIWAY	S	0	6,112.00	8/18/2017	1	94
TWG1	02	11/1/2016	AC	TAXIWAY	S	0	6,142.00	8/18/2017	1	94
TWH	01	11/1/2016	AC	TAXIWAY	S	0	17,946.00	8/18/2017	1	90
TWH	02	11/1/2016	AC	TAXIWAY	S	0	17,908.00	8/18/2017	1	94
TWH	03	7/1/1976	AAC	TAXIWAY	S	0	57,575.00	8/18/2017	41	47
TWH	04	7/1/1976	AAC	TAXIWAY	S	0	38,998.00	8/18/2017	41	48
TWH	05	9/1/1996	AC	TAXIWAY	S	0	50,000.00	8/18/2017	21	64
TWJ	01	7/1/1976	AAC	TAXIWAY	S	0	7,671.00	8/18/2017	41	49
TWK	01	7/1/1976	AAC	TAXIWAY	S	0	102,350.00	8/18/2017	41	57
TWL	01	11/1/2016	AC	TAXIWAY	S	0	6,137.00	11/9/2017	1	94
TWM	01	1/1/2013	AAC	TAXIWAY	S	0	14,304.00	8/18/2017	4	91
TWM	02	11/1/2016	AC	TAXIWAY	S	0	13,410.00	8/18/2017	1	93

Section Condition Report (Summary)

Pavement Database: MYF 11-14-2017

Age Category	Average Age at Inspection	Total Area (SqFt)	Number of Sections	Arithmetic Average PCI	Standard Deviation PCI	Weighted Average PCI
00-02	1	454,526.00	24	91.96	4.50	92.72
03-05	4	846,714.00	22	90.95	4.68	91.52
06-10	8	39,262.00	3	70.67	6.18	71.51
21-25	21	230,781.00	5	64.80	20.70	56.95
31-35	32	8,468.00	1	43.00	0.00	43.00
36-40	37	283,339.00	2	45.50	5.50	49.76
41-50	41	520,133.00	15	47.60	18.79	52.78
ALL	13	2,383,223.00	72	77.67	22.10	74.48

Attachment D Pavement Inspection Report

Re-Inspection Report

MYF 12-01-2017
Generated Date 12/18/2017

Network: MYF **Name:** MYF

Branch: AHANGAR **Name:** Hangar Apron **Use:** APRON **Area:** 283,339 SqFt

Section: 02 of 2 **From:** MAP **To:** MAP **Last Const.:** 7/1/1981

Surface: AAC **Family:** DEFAULT **Zone:** **Category:** **Rank:** T

Area: 251,316 SqFt **Length:** 420 Ft **Width:** 595 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Last Insp. Date: 8/18/2017 **TotalSamples:** 30 **Surveyed:** 4

Conditions: **PCI:** 51

Inspection Comments:

Sample Number: 002 **Type:** R **Area:** 6393.00 SqFt **PCI:** 38

Re-Inspection Report

44	CORRUGATION	L	192.00	SqFt	Comments:
52	RAVELING	L	2130.00	SqFt	Comments:
41	ALLIGATOR CR	M	225.00	SqFt	Comments:
43	BLOCK CR	L	1372.00	SqFt	Comments:
48	L & T CR	L	21.00	Ft	Comments:

Sample Number: 008 **Type:** R **Area:** 4981.00 SqFt **PCI:** 45

Re-Inspection Report

52	RAVELING	L	4200.00	SqFt	Comments:
41	ALLIGATOR CR	M	120.00	SqFt	Comments:
43	BLOCK CR	L	612.00	SqFt	Comments:
48	L & T CR	M	105.00	Ft	Comments:
48	L & T CR	L	28.00	Ft	Comments:

Sample Number: 017 **Type:** R **Area:** 4557.00 SqFt **PCI:** 72

Re-Inspection Report

52	RAVELING	L	760.00	SqFt	Comments:
48	L & T CR	L	438.00	Ft	Comments:

Sample Number: 024 **Type:** R **Area:** 5788.00 SqFt **PCI:** 54

Re-Inspection Report

52	RAVELING	L	1930.00	SqFt	Comments:
43	BLOCK CR	L	2204.00	SqFt	Comments:
41	ALLIGATOR CR	M	42.00	SqFt	Comments:
48	L & T CR	L	203.00	Ft	Comments:

Network: MYF **Name:** MYF

Branch: AHANGAR **Name:** Hangar Apron **Use:** APRON **Area:** 283,339 SqFt

Section: 01 of 2 **From:** MAP **To:** MAP **Last Const.:** 7/1/1981

Surface: AC **Family:** DEFAULT **Zone:** **Category:** **Rank:** T

Area: 32,023 SqFt **Length:** 52 Ft **Width:** 595 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Last Insp. Date: 8/18/2017 **TotalSamples:** 8 **Surveyed:** 3

Conditions: **PCI:** 40

Inspection Comments:

Sample Number: 002 **Type:** R **Area:** 5183.00 SqFt **PCI:** 59

Re-Inspection Report

43	BLOCK CR	L	5183.00	SqFt	Comments:
52	RAVELING	L	1720.00	SqFt	Comments:

Sample Number: 006 **Type:** R **Area:** 5567.00 SqFt **PCI:** 19

Re-Inspection Report

43	BLOCK CR	H	1990.00	SqFt	Comments:
43	BLOCK CR	M	532.00	SqFt	Comments:
52	RAVELING	H	234.00	SqFt	Comments:
45	DEPRESSION	L	144.00	SqFt	Comments:
48	L & T CR	L	47.00	Ft	Comments:
52	RAVELING	L	5333.00	SqFt	Comments:

Sample Number: 008 **Type:** R **Area:** 4247.00 SqFt **PCI:** 45

Re-Inspection Report

52	RAVELING	L	4247.00	SqFt	Comments:
43	BLOCK CR	L	3547.00	SqFt	Comments:
43	BLOCK CR	M	700.00	SqFt	Comments:

Network: MYF **Name:** MYF

Branch: ATERM **Name:** Terminal Apron **Use:** APRON **Area:** 192,613 SqFt

Section: 01 of 2 **From:** MAP **To:** MAP **Last Const.:** 7/1/1976

Surface: AAC **Family:** DEFAULT **Zone:** **Category:** **Rank:** T

Area: 40,550 SqFt **Length:** 800 Ft **Width:** 50 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Last Insp. Date: 8/18/2017 **TotalSamples:** 7 **Surveyed:** 3

Conditions: **PCI:** 45

Inspection Comments:

Sample Number: 002 **Type:** R **Area:** 4474.00 SqFt **PCI:** 57

Re-Inspection Report

43	BLOCK CR	L	2025.00	SqFt	Comments:
52	RAVELING	L	4474.00	SqFt	Comments:
48	L & T CR	M	33.00	Ft	Comments:
48	L & T CR	L	64.00	Ft	Comments:

Sample Number: 004 **Type:** R **Area:** 4494.00 SqFt **PCI:** 34

Re-Inspection Report

52	RAVELING	L	4494.00	SqFt	Comments:
48	L & T CR	H	5.00	Ft	Comments:
48	L & T CR	M	63.00	Ft	Comments:
48	L & T CR	L	44.00	Ft	Comments:
41	ALLIGATOR CR	L	156.00	SqFt	Comments:
43	BLOCK CR	M	1122.00	SqFt	Comments:
56	SWELLING	M	78.00	SqFt	Comments:

Sample Number: 006 **Type:** R **Area:** 4513.00 SqFt **PCI:** 45

Re-Inspection Report

52	RAVELING	L	4513.00	SqFt	Comments:
48	L & T CR	M	168.00	Ft	Comments:
48	L & T CR	L	138.00	Ft	Comments:
41	ALLIGATOR CR	L	190.00	SqFt	Comments:

Network: MYF **Name:** MYF

Branch: ATERM **Name:** Terminal Apron **Use:** APRON **Area:** 192,613 SqFt

Section: 02 of 2 **From:** MAP **To:** MAP **Last Const.:** 7/1/1976

Surface: AAC **Family:** DEFAULT **Zone:** **Category:** **Rank:** T

Area: 152,063 SqFt **Length:** 3,000 Ft **Width:** 50 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Last Insp. Date: 8/18/2017 **TotalSamples:** 54 **Surveyed:** 5

Conditions: **PCI:** 54

Inspection Comments:

Sample Number: 008 **Type:** R **Area:** 4515.00 SqFt **PCI:** 28

Re-Inspection Report

43	BLOCK CR	H	1860.00	SqFt	Comments:
43	BLOCK CR	L	2332.00	SqFt	Comments:
52	RAVELING	M	120.00	SqFt	Comments:

Sample Number: 015 **Type:** R **Area:** 4515.00 SqFt **PCI:** 59

Re-Inspection Report

41	ALLIGATOR CR	L	140.00	SqFt	Comments:
48	L & T CR	M	75.00	Ft	Comments:
48	L & T CR	L	130.00	Ft	Comments:

Sample Number: 028 **Type:** R **Area:** 4515.00 SqFt **PCI:** 62

Re-Inspection Report

41	ALLIGATOR CR	L	102.00	SqFt	Comments:
48	L & T CR	M	28.00	Ft	Comments:
48	L & T CR	L	234.00	Ft	Comments:

Sample Number: 032 **Type:** R **Area:** 4515.00 SqFt **PCI:** 67

Re-Inspection Report

48	L & T CR	M	113.00	Ft	Comments:
48	L & T CR	L	394.00	Ft	Comments:
52	RAVELING	L	1505.00	SqFt	Comments:

Sample Number: 050 **Type:** R **Area:** 4386.00 SqFt **PCI:** 54

Re-Inspection Report

43	BLOCK CR	L	1330.00	SqFt	Comments:
48	L & T CR	H	40.00	Ft	Comments:
48	L & T CR	M	104.00	Ft	Comments:
48	L & T CR	L	132.00	Ft	Comments:
52	RAVELING	L	1462.00	SqFt	Comments:

Network: MYF **Name:** MYF

Branch: ATWA **Name:** Taxiway A Warm Up **Use:** APRON **Area:** 22,674 SqFt

Section: 01 of 2 **From:** MAP **To:** MAP **Last Const.:** 1/1/2013

Surface: AAC **Family:** DEFAULT **Zone:** **Category:** **Rank:** T

Area: 20,080 SqFt **Length:** 220 Ft **Width:** 90 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Last Insp. Date: 8/18/2017 **TotalSamples:** 4 **Surveyed:** 2

Conditions: **PCI:** 78

Inspection Comments:

Sample Number: 002 **Type:** R **Area:** 4750.00 SqFt **PCI:** 83

Re-Inspection Report

57	WEATHERING	L	4750.00	SqFt	Comments:
48	L & T CR	L	188.00	Ft	Comments:

Sample Number: 004 **Type:** R **Area:** 5350.00 SqFt **PCI:** 74

Re-Inspection Report

57	WEATHERING	L	5350.00	SqFt	Comments:
41	ALLIGATOR CR	L	32.00	SqFt	Comments:
48	L & T CR	L	204.00	Ft	Comments:

Network: MYF **Name:** MYF

Branch: ATWA **Name:** Taxiway A Warm Up **Use:** APRON **Area:** 22,674 SqFt

Section: 02 of 2 **From:** MAP **To:** MAP **Last Const.:** 9/1/1996

Surface: AC **Family:** DEFAULT **Zone:** **Category:** **Rank:** T

Area: 2,594 SqFt **Length:** 100 Ft **Width:** 25 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Last Insp. Date: 8/18/2017 **TotalSamples:** 1 **Surveyed:** 1

Conditions: **PCI:** 94

Inspection Comments:

Sample Number: 001 **Type:** R **Area:** 2594.00 SqFt **PCI:** 94

Re-Inspection Report

57	WEATHERING	L	2594.00	SqFt	Comments:

Network: MYF **Name:** MYF

Branch: ATWB **Name:** Taxiway B Warm Up **Use:** APRON **Area:** 9,288 SqFt

Section: 01 of 1 **From:** MAP **To:** MAP **Last Const.:** 7/1/1976

Surface: AAC **Family:** DEFAULT **Zone:** **Category:** **Rank:** T

Area: 9,288 SqFt **Length:** 200 Ft **Width:** 45 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Last Insp. Date: 8/18/2017 **TotalSamples:** 2 **Surveyed:** 2

Conditions: **PCI:** 21

Inspection Comments:

Sample Number: 001 **Type:** R **Area:** 3184.00 SqFt **PCI:** 33

Re-Inspection Report

52	RAVELING	L	3184.00	SqFt	Comments:
48	L & T CR	H	6.00	Ft	Comments:
48	L & T CR	M	140.00	Ft	Comments:
48	L & T CR	L	18.00	Ft	Comments:
41	ALLIGATOR CR	M	60.00	SqFt	Comments:
41	ALLIGATOR CR	L	96.00	SqFt	Comments:

Sample Number: 002 **Type:** R **Area:** 6104.00 SqFt **PCI:** 15

Re-Inspection Report

48	L & T CR	L	51.00	Ft	Comments:
48	L & T CR	H	41.00	Ft	Comments:
43	BLOCK CR	M	1407.00	SqFt	Comments:
41	ALLIGATOR CR	L	92.00	SqFt	Comments:
52	RAVELING	H	2750.00	SqFt	Comments:
52	RAVELING	L	3354.00	SqFt	Comments:

Network: MYF **Name:** MYF

Branch: ATWC **Name:** Taxiway C Warm Up **Use:** APRON **Area:** 5,850 SqFt

Section: 01 of 2 **From:** MAP **To:** MAP **Last Const.:** 11/1/2016

Surface: AC **Family:** DEFAULT **Zone:** **Category:** **Rank:** T

Area: 1,650 SqFt **Length:** 55 Ft **Width:** 30 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Last Insp. Date: 8/18/2017 **TotalSamples:** 1 **Surveyed:** 1

Conditions: **PCI:** 72

Inspection Comments:

Sample Number: 001 **Type:** R **Area:** 1650.00 SqFt **PCI:** 72

Re-Inspection Report

57	WEATHERING	M	300.00	SqFt	Comments:
41	ALLIGATOR CR	L	8.00	SqFt	Comments:
57	WEATHERING	L	1350.00	SqFt	Comments:
48	L & T CR	L	5.00	Ft	Comments:

Network: MYF **Name:** MYF

Branch: ATWC **Name:** Taxiway C Warm Up **Use:** APRON **Area:** 5,850 SqFt

Section: 02 of 2 **From:** MAP **To:** MAP **Last Const.:** 7/1/1976

Surface: AC **Family:** DEFAULT **Zone:** **Category:** **Rank:** T

Area: 4,200 SqFt **Length:** 140 Ft **Width:** 30 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Last Insp. Date: 8/18/2017 **TotalSamples:** 1 **Surveyed:** 1

Conditions: **PCI:** 85

Inspection Comments:

Sample Number: 001 **Type:** R **Area:** 4200.00 SqFt **PCI:** 85

Re-Inspection Report

57	WEATHERING	L	4200.00	SqFt	Comments:
41	ALLIGATOR CR	L	8.00	SqFt	Comments:
50	PATCHING	L	6.00	SqFt	Comments:

Network: MYF **Name:** MYF

Branch: ATWH **Name:** Taxiway H Warm Up **Use:** APRON **Area:** 20,642 SqFt

Section: 01 of 1 **From:** MAP **To:** MAP **Last Const.:** 11/1/2016

Surface: AC **Family:** DEFAULT **Zone:** **Category:** **Rank:** T

Area: 20,642 SqFt **Length:** 275 Ft **Width:** 75 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Last Insp. Date: 8/18/2017 **TotalSamples:** 4 **Surveyed:** 2

Conditions: **PCI:** 91

Inspection Comments:

Sample Number: 001 **Type:** R **Area:** 5099.00 SqFt **PCI:** 94

Re-Inspection Report

57	WEATHERING	L	5099.00	SqFt	Comments:

Sample Number: 003 **Type:** R **Area:** 5746.00 SqFt **PCI:** 89

Re-Inspection Report

57	WEATHERING	M	720.00	SqFt	Comments:
57	WEATHERING	L	5026.00	SqFt	Comments:

Network: MYF **Name:** MYF

Branch: HTW **Name:** Heli Taxiway **Use:** TAXIWAY **Area:** 8,598 SqFt

Section: 01 of 1 **From:** MAP **To:** MAP **Last Const.:** 7/1/1976

Surface: AC **Family:** DEFAULT **Zone:** **Category:** **Rank:** S

Area: 8,598 SqFt **Length:** 285 Ft **Width:** 30 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Last Insp. Date: 8/18/2017 **TotalSamples:** 2 **Surveyed:** 2

Conditions: **PCI:** 22

Inspection Comments:

Sample Number: 001 **Type:** R **Area:** 4602.00 SqFt **PCI:** 6

Re-Inspection Report

50	PATCHING	M	48.00	SqFt	Comments:
57	WEATHERING	M	3988.00	SqFt	Comments:
57	WEATHERING	H	30.00	SqFt	Comments:
41	ALLIGATOR CR	M	240.00	SqFt	Comments:
41	ALLIGATOR CR	H	584.00	SqFt	Comments:
41	ALLIGATOR CR	L	138.00	SqFt	Comments:
48	L & T CR	M	6.00	Ft	Comments:
48	L & T CR	L	21.00	Ft	Comments:

Sample Number: 002 **Type:** R **Area:** 3996.00 SqFt **PCI:** 39

Re-Inspection Report

57	WEATHERING	L	1350.00	SqFt	Comments:
57	WEATHERING	M	2646.00	SqFt	Comments:
41	ALLIGATOR CR	M	175.00	SqFt	Comments:
48	L & T CR	L	112.00	Ft	Comments:
48	L & T CR	M	146.00	Ft	Comments:

Network: MYF **Name:** MYF

Branch: OVER28R **Name:** Overrun RWY 28R **Use:** OVERRUN **Area:** 180,150 SqFt

Section: 01L of 3 **From:** MAP **To:** MAP **Last Const.:** 1/1/2013

Surface: AAC **Family:** DEFAULT **Zone:** **Category:** **Rank:** P

Area: 60,050 SqFt **Length:** 1,200 Ft **Width:** 50 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Last Insp. Date: 8/18/2017 **TotalSamples:** 12 **Surveyed:** 3

Conditions: **PCI:** 94

Inspection Comments:

Sample Number: 002 **Type:** R **Area:** 5000.00 SqFt **PCI:** 94

Re-Inspection Report

57	WEATHERING	L	5000.00	SqFt	Comments:

Sample Number: 006 **Type:** R **Area:** 5000.00 SqFt **PCI:** 94

Re-Inspection Report

57	WEATHERING	L	5000.00	SqFt	Comments:

Sample Number: 010 **Type:** R **Area:** 5000.00 SqFt **PCI:** 94

Re-Inspection Report

57	WEATHERING	L	5000.00	SqFt	Comments:

Network: MYF **Name:** MYF

Branch: OVER28R **Name:** Overrun RWY 28R **Use:** OVERRUN **Area:** 180,150 SqFt

Section: 01K of 3 **From:** MAP **To:** MAP **Last Const.:** 1/1/2013

Surface: AAC **Family:** DEFAULT **Zone:** **Category:** **Rank:** P

Area: 60,050 SqFt **Length:** 1,200 Ft **Width:** 50 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Last Insp. Date: 8/18/2017 **TotalSamples:** 12 **Surveyed:** 3

Conditions: **PCI:** 93

Inspection Comments:

Sample Number: 003 **Type:** R **Area:** 5000.00 SqFt **PCI:** 94

Re-Inspection Report

57	WEATHERING	L	5000.00	SqFt	Comments:

Sample Number: 007 **Type:** R **Area:** 5000.00 SqFt **PCI:** 94

Re-Inspection Report

57	WEATHERING	L	5000.00	SqFt	Comments:

Sample Number: 011 **Type:** R **Area:** 5000.00 SqFt **PCI:** 91

Re-Inspection Report

57	WEATHERING	L	4744.00	SqFt	Comments:
57	WEATHERING	M	256.00	SqFt	Comments:

Network: MYF **Name:** MYF

Branch: OVER28R **Name:** Overrun RWY 28R **Use:** OVERRUN **Area:** 180,150 SqFt

Section: 01R of 3 **From:** MAP **To:** MAP **Last Const.:** 1/1/2013

Surface: AAC **Family:** DEFAULT **Zone:** **Category:** **Rank:** P

Area: 60,050 SqFt **Length:** 1,200 Ft **Width:** 50 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Last Insp. Date: 8/18/2017 **TotalSamples:** 12 **Surveyed:** 3

Conditions: **PCI:** 93

Inspection Comments:

Sample Number: 004 **Type:** R **Area:** 5000.00 SqFt **PCI:** 94

Re-Inspection Report

57	WEATHERING	L	5000.00	SqFt	Comments:

Sample Number: 008 **Type:** R **Area:** 5000.00 SqFt **PCI:** 90

Re-Inspection Report

57	WEATHERING	M	348.00	SqFt	Comments:
57	WEATHERING	L	4652.00	SqFt	Comments:

Sample Number: 012 **Type:** R **Area:** 5000.00 SqFt **PCI:** 94

Re-Inspection Report

57	WEATHERING	L	5000.00	SqFt	Comments:

Network: MYF **Name:** MYF

Branch: R10L28R **Name:** RWY 10L-28R **Use:** RUNWAY **Area:** 510,150 SqFt

Section: 01L of 9 **From:** MAP **To:** MAP **Last Const.:** 1/1/2013

Surface: AC **Family:** DEFAULT **Zone:** **Category:** **Rank:** P

Area: 50,000 SqFt **Length:** 1,000 Ft **Width:** 50 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Last Insp. Date: 8/18/2017 **TotalSamples:** 10 **Surveyed:** 3

Conditions: **PCI:** 94

Inspection Comments:

Sample Number: 002 **Type:** R **Area:** 5000.00 SqFt **PCI:** 93

Re-Inspection Report

57	WEATHERING	L	5000.00	SqFt	Comments:
45	DEPRESSION	L	12.00	SqFt	Comments:

Sample Number: 005 **Type:** R **Area:** 5000.00 SqFt **PCI:** 94

Re-Inspection Report

57	WEATHERING	L	5000.00	SqFt	Comments:

Sample Number: 008 **Type:** R **Area:** 5000.00 SqFt **PCI:** 94

Re-Inspection Report

57	WEATHERING	L	5000.00	SqFt	Comments:

Network: MYF **Name:** MYF

Branch: R10L28R **Name:** RWY 10L-28R **Use:** RUNWAY **Area:** 510,150 SqFt

Section: 01K of 9 **From:** MAP **To:** MAP **Last Const.:** 1/1/2013

Surface: AC **Family:** DEFAULT **Zone:** **Category:** **Rank:** P

Area: 50,000 SqFt **Length:** 1,000 Ft **Width:** 50 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Last Insp. Date: 8/18/2017 **TotalSamples:** 10 **Surveyed:** 3

Conditions: **PCI:** 94

Inspection Comments:

Sample Number: 003 **Type:** R **Area:** 5000.00 SqFt **PCI:** 94

Re-Inspection Report

57	WEATHERING	L	5000.00	SqFt	Comments:

Sample Number: 006 **Type:** R **Area:** 5000.00 SqFt **PCI:** 94

Re-Inspection Report

57	WEATHERING	L	5000.00	SqFt	Comments:

Sample Number: 009 **Type:** R **Area:** 5000.00 SqFt **PCI:** 94

Re-Inspection Report

57	WEATHERING	L	5000.00	SqFt	Comments:

Network: MYF **Name:** MYF

Branch: R10L28R **Name:** RWY 10L-28R **Use:** RUNWAY **Area:** 510,150 SqFt

Section: 01R of 9 **From:** MAP **To:** MAP **Last Const.:** 1/1/2013

Surface: AC **Family:** DEFAULT **Zone:** **Category:** **Rank:** P

Area: 50,000 SqFt **Length:** 1,000 Ft **Width:** 50 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Last Insp. Date: 8/18/2017 **TotalSamples:** 10 **Surveyed:** 3

Conditions: **PCI:** 94

Inspection Comments:

Sample Number: 004 **Type:** R **Area:** 5000.00 SqFt **PCI:** 94

Re-Inspection Report

57	WEATHERING	L	5000.00	SqFt	Comments:

Sample Number: 007 **Type:** R **Area:** 5000.00 SqFt **PCI:** 94

Re-Inspection Report

57	WEATHERING	L	5000.00	SqFt	Comments:

Sample Number: 010 **Type:** R **Area:** 5000.00 SqFt **PCI:** 94

Re-Inspection Report

57	WEATHERING	L	5000.00	SqFt	Comments:

Network: MYF **Name:** MYF

Branch: R10L28R **Name:** RWY 10L-28R **Use:** RUNWAY **Area:** 510,150 SqFt

Section: 02L of 9 **From:** MAP **To:** MAP **Last Const.:** 1/1/2013

Surface: AC **Family:** DEFAULT **Zone:** **Category:** **Rank:** P

Area: 70,050 SqFt **Length:** 1,400 Ft **Width:** 50 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Last Insp. Date: 8/18/2017 **TotalSamples:** 14 **Surveyed:** 3

Conditions: **PCI:** 83

Inspection Comments:

Sample Number: 001 **Type:** R **Area:** 5000.00 SqFt **PCI:** 61

Re-Inspection Report

48	L & T CR	L	16.00	Ft	Comments:
57	WEATHERING	L	5000.00	SqFt	Comments:
45	DEPRESSION	H	68.00	SqFt	Comments:
45	DEPRESSION	M	16.00	SqFt	Comments:

Sample Number: 006 **Type:** R **Area:** 5000.00 SqFt **PCI:** 94

Re-Inspection Report

57	WEATHERING	L	5000.00	SqFt	Comments:

Sample Number: 011 **Type:** R **Area:** 5000.00 SqFt **PCI:** 94

Re-Inspection Report

57	WEATHERING	L	5000.00	SqFt	Comments:

Network: MYF **Name:** MYF

Branch: R10L28R **Name:** RWY 10L-28R **Use:** RUNWAY **Area:** 510,150 SqFt

Section: 02K of 9 **From:** MAP **To:** MAP **Last Const.:** 1/1/2013

Surface: AC **Family:** DEFAULT **Zone:** **Category:** **Rank:** P

Area: 70,050 SqFt **Length:** 1,400 Ft **Width:** 50 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Last Insp. Date: 8/18/2017 **TotalSamples:** 14 **Surveyed:** 3

Conditions: **PCI:** 94

Inspection Comments:

Sample Number: 002 **Type:** R **Area:** 5000.00 SqFt **PCI:** 94

Re-Inspection Report

57	WEATHERING	L	5000.00	SqFt	Comments:

Sample Number: 007 **Type:** R **Area:** 5000.00 SqFt **PCI:** 94

Re-Inspection Report

57	WEATHERING	L	5000.00	SqFt	Comments:

Sample Number: 012 **Type:** R **Area:** 5000.00 SqFt **PCI:** 94

Re-Inspection Report

57	WEATHERING	L	5000.00	SqFt	Comments:

Network: MYF **Name:** MYF

Branch: R10L28R **Name:** RWY 10L-28R **Use:** RUNWAY **Area:** 510,150 SqFt

Section: 02R of 9 **From:** MAP **To:** MAP **Last Const.:** 1/1/2013

Surface: AC **Family:** DEFAULT **Zone:** **Category:** **Rank:** P

Area: 70,050 SqFt **Length:** 1,400 Ft **Width:** 50 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Last Insp. Date: 8/18/2017 **TotalSamples:** 14 **Surveyed:** 3

Conditions: **PCI:** 94

Inspection Comments:

Sample Number: 003 **Type:** R **Area:** 5000.00 SqFt **PCI:** 94

Re-Inspection Report

57	WEATHERING	L	5000.00	SqFt	Comments:

Sample Number: 008 **Type:** R **Area:** 5000.00 SqFt **PCI:** 94

Re-Inspection Report

57	WEATHERING	L	5000.00	SqFt	Comments:

Sample Number: 013 **Type:** R **Area:** 5000.00 SqFt **PCI:** 94

Re-Inspection Report

57	WEATHERING	L	5000.00	SqFt	Comments:

Network: MYF **Name:** MYF

Branch: R10L28R **Name:** RWY 10L-28R **Use:** RUNWAY **Area:** 510,150 SqFt

Section: 03L of 9 **From:** MAP **To:** MAP **Last Const.:** 1/1/2013

Surface: AC **Family:** DEFAULT **Zone:** **Category:** **Rank:** P

Area: 50,000 SqFt **Length:** 1,000 Ft **Width:** 50 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Last Insp. Date: 8/18/2017 **TotalSamples:** 10 **Surveyed:** 3

Conditions: **PCI:** 82

Inspection Comments:

Sample Number: 002 **Type:** R **Area:** 5000.00 SqFt **PCI:** 94

Re-Inspection Report

57	WEATHERING	L	5000.00	SqFt	Comments:

Sample Number: 005 **Type:** R **Area:** 5000.00 SqFt **PCI:** 74

Re-Inspection Report

57	WEATHERING	L	5000.00	SqFt	Comments:
45	DEPRESSION	M	96.00	SqFt	Comments:

Sample Number: 008 **Type:** R **Area:** 5000.00 SqFt **PCI:** 79

Re-Inspection Report

57	WEATHERING	L	5000.00	SqFt	Comments:
45	DEPRESSION	M	52.00	SqFt	Comments:

Network: MYF **Name:** MYF

Branch: R10L28R **Name:** RWY 10L-28R **Use:** RUNWAY **Area:** 510,150 SqFt

Section: 03K of 9 **From:** MAP **To:** MAP **Last Const.:** 1/1/2013

Surface: AC **Family:** DEFAULT **Zone:** **Category:** **Rank:** P

Area: 50,000 SqFt **Length:** 1,000 Ft **Width:** 50 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Last Insp. Date: 8/18/2017 **TotalSamples:** 10 **Surveyed:** 3

Conditions: **PCI:** 94

Inspection Comments:

Sample Number: 003 **Type:** R **Area:** 5000.00 SqFt **PCI:** 94

Re-Inspection Report

57	WEATHERING	L	5000.00	SqFt	Comments:

Sample Number: 006 **Type:** R **Area:** 5000.00 SqFt **PCI:** 94

Re-Inspection Report

57	WEATHERING	L	5000.00	SqFt	Comments:

Sample Number: 009 **Type:** R **Area:** 5000.00 SqFt **PCI:** 94

Re-Inspection Report

57	WEATHERING	L	5000.00	SqFt	Comments:

Network: MYF **Name:** MYF

Branch: R10L28R **Name:** RWY 10L-28R **Use:** RUNWAY **Area:** 510,150 SqFt

Section: 03R of 9 **From:** MAP **To:** MAP **Last Const.:** 1/1/2013

Surface: AC **Family:** DEFAULT **Zone:** **Category:** **Rank:** P

Area: 50,000 SqFt **Length:** 1,000 Ft **Width:** 50 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Last Insp. Date: 8/18/2017 **TotalSamples:** 10 **Surveyed:** 3

Conditions: **PCI:** 94

Inspection Comments:

Sample Number: 004 **Type:** R **Area:** 5000.00 SqFt **PCI:** 94

Re-Inspection Report

57	WEATHERING	L	5000.00	SqFt	Comments:

Sample Number: 007 **Type:** R **Area:** 5000.00 SqFt **PCI:** 94

Re-Inspection Report

57	WEATHERING	L	5000.00	SqFt	Comments:

Sample Number: 010 **Type:** R **Area:** 5000.00 SqFt **PCI:** 94

Re-Inspection Report

57	WEATHERING	L	5000.00	SqFt	Comments:

Network: MYF **Name:** MYF

Branch: R10R28L **Name:** RWY 10R-28L **Use:** RUNWAY **Area:** 198,279 SqFt

Section: 01 of 4 **From:** MAP **To:** MAP **Last Const.:** 9/1/1996

Surface: AAC **Family:** DEFAULT **Zone:** **Category:** **Rank:** P

Area: 26,575 SqFt **Length:** 440 Ft **Width:** 60 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Last Insp. Date: 8/18/2017 **TotalSamples:** 6 **Surveyed:** 3

Conditions: **PCI:** 34

Inspection Comments:

Sample Number: 002 **Type:** R **Area:** 4426.00 SqFt **PCI:** 25

Re-Inspection Report

52	RAVELING	L	4309.00	SqFt	Comments:
52	RAVELING	M	117.00	SqFt	Comments:
48	L & T CR	L	30.00	Ft	Comments:
41	ALLIGATOR CR	M	270.00	SqFt	Comments:
43	BLOCK CR	L	780.00	SqFt	Comments:
48	L & T CR	M	52.00	Ft	Comments:
48	L & T CR	H	21.00	Ft	Comments:

Sample Number: 004 **Type:** R **Area:** 4426.00 SqFt **PCI:** 43

Re-Inspection Report

41	ALLIGATOR CR	L	144.00	SqFt	Comments:
48	L & T CR	H	6.00	Ft	Comments:
48	L & T CR	L	84.00	Ft	Comments:
43	BLOCK CR	L	988.00	SqFt	Comments:
52	RAVELING	L	4426.00	SqFt	Comments:

Sample Number: 006 **Type:** R **Area:** 4426.00 SqFt **PCI:** 35

Re-Inspection Report

52	RAVELING	H	42.00	SqFt	Comments:
52	RAVELING	L	4384.00	SqFt	Comments:
48	L & T CR	H	60.00	Ft	Comments:
48	L & T CR	M	24.00	Ft	Comments:
48	L & T CR	L	41.00	Ft	Comments:
43	BLOCK CR	L	2516.00	SqFt	Comments:
41	ALLIGATOR CR	L	60.00	SqFt	Comments:

Network: MYF **Name:** MYF

Branch: R10R28L **Name:** RWY 10R-28L **Use:** RUNWAY **Area:** 198,279 SqFt

Section: 02 of 4 **From:** MAP **To:** MAP **Last Const.:** 11/1/2016

Surface: AC **Family:** DEFAULT **Zone:** **Category:** **Rank:** P

Area: 17,442 SqFt **Length:** 290 Ft **Width:** 60 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Last Insp. Date: 8/18/2017 **TotalSamples:** 3 **Surveyed:** 2

Conditions: **PCI:** 91

Inspection Comments:

Sample Number: 001 **Type:** R **Area:** 6175.00 SqFt **PCI:** 91

Re-Inspection Report

57	WEATHERING	M	300.00	SqFt	Comments:
57	WEATHERING	L	5875.00	SqFt	Comments:

Sample Number: 003 **Type:** R **Area:** 5094.00 SqFt **PCI:** 91

Re-Inspection Report

57	WEATHERING	H	4.00	SqFt	Comments:
57	WEATHERING	L	5090.00	SqFt	Comments:

Network: MYF **Name:** MYF

Branch: R10R28L **Name:** RWY 10R-28L **Use:** RUNWAY **Area:** 198,279 SqFt

Section: 03 of 4 **From:** MAP **To:** MAP **Last Const.:** 11/1/2016

Surface: AC **Family:** DEFAULT **Zone:** **Category:** **Rank:** P

Area: 31,852 SqFt **Length:** 530 Ft **Width:** 60 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Last Insp. Date: 8/18/2017 **TotalSamples:** 7 **Surveyed:** 3

Conditions: **PCI:** 94

Inspection Comments:

Sample Number: 002 **Type:** R **Area:** 4538.00 SqFt **PCI:** 94

Re-Inspection Report

57	WEATHERING	L	4538.00	SqFt	Comments:

Sample Number: 004 **Type:** R **Area:** 4538.00 SqFt **PCI:** 94

Re-Inspection Report

57	WEATHERING	L	4538.00	SqFt	Comments:

Sample Number: 006 **Type:** R **Area:** 4538.00 SqFt **PCI:** 94

Re-Inspection Report

57	WEATHERING	L	4538.00	SqFt	Comments:

Network: MYF **Name:** MYF

Branch: R10R28L **Name:** RWY 10R-28L **Use:** RUNWAY **Area:** 198,279 SqFt

Section: 04 of 4 **From:** MAP **To:** MAP **Last Const.:** 9/1/1996

Surface: AAC **Family:** DEFAULT **Zone:** **Category:** **Rank:** P

Area: 122,410 SqFt **Length:** 2,040 Ft **Width:** 60 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Last Insp. Date: 8/18/2017 **TotalSamples:** 25 **Surveyed:** 6

Conditions: **PCI:** 53

Inspection Comments:

Sample Number: 003 **Type:** R **Area:** 4896.00 SqFt **PCI:** 53

Re-Inspection Report

41	ALLIGATOR CR	L	120.00	SqFt	Comments:
43	BLOCK CR	L	4896.00	SqFt	Comments:
57	WEATHERING	L	4896.00	SqFt	Comments:

Sample Number: 008 **Type:** R **Area:** 4896.00 SqFt **PCI:** 58

Re-Inspection Report

52	RAVELING	L	978.00	SqFt	Comments:
52	RAVELING	L	978.00	SqFt	Comments:
57	WEATHERING	L	3918.00	SqFt	Comments:
48	L & T CR	L	87.00	Ft	Comments:
48	L & T CR	M	26.00	Ft	Comments:
41	ALLIGATOR CR	L	60.00	SqFt	Comments:

Sample Number: 013 **Type:** R **Area:** 4896.00 SqFt **PCI:** 61

Re-Inspection Report

52	RAVELING	L	4896.00	SqFt	Comments:
56	SWELLING	L	20.00	SqFt	Comments:
41	ALLIGATOR CR	L	140.00	SqFt	Comments:

Sample Number: 016 **Type:** R **Area:** 4896.00 SqFt **PCI:** 44

Re-Inspection Report

43	BLOCK CR	L	4896.00	SqFt	Comments:
52	RAVELING	L	4896.00	SqFt	Comments:
48	L & T CR	H	2.00	Ft	Comments:
48	L & T CR	M	50.00	Ft	Comments:
48	L & T CR	L	82.00	Ft	Comments:

Sample Number: 020 **Type:** R **Area:** 4896.00 SqFt **PCI:** 54

Re-Inspection Report

52	RAVELING	L	4896.00	SqFt	Comments:
43	BLOCK CR	L	4896.00	SqFt	Comments:
48	L & T CR	L	176.00	Ft	Comments:

Sample Number: 024 **Type:** R **Area:** 4896.00 SqFt **PCI:** 47

Re-Inspection Report

57	WEATHERING	M	479.00	SqFt	Comments:
48	L & T CR	L	53.00	Ft	Comments:
52	RAVELING	M	186.00	SqFt	Comments:
43	BLOCK CR	L	3909.00	SqFt	Comments:
52	RAVELING	L	4231.00	SqFt	Comments:

Network: MYF **Name:** MYF

Branch: R523 **Name:** RWY 5-23 **Use:** RUNWAY **Area:** 240,476 SqFt

Section: 01 of 7 **From:** MAP **To:** MAP **Last Const.:** 11/1/2016

Surface: AC **Family:** DEFAULT **Zone:** **Category:** **Rank:** P

Area: 90,030 SqFt **Length:** 1,200 Ft **Width:** 75 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Last Insp. Date: 8/18/2017 **TotalSamples:** 18 **Surveyed:** 4

Conditions: **PCI:** 92

Inspection Comments:

Sample Number: 001 **Type:** R **Area:** 4989.00 SqFt **PCI:** 90

Re-Inspection Report

57	WEATHERING	M	271.00	SqFt	Comments:
57	WEATHERING	L	4718.00	SqFt	Comments:

Sample Number: 006 **Type:** R **Area:** 5000.00 SqFt **PCI:** 94

Re-Inspection Report

57	WEATHERING	L	5000.00	SqFt	Comments:

Sample Number: 011 **Type:** R **Area:** 5000.00 SqFt **PCI:** 89

Re-Inspection Report

57	WEATHERING	M	396.00	SqFt	Comments:
57	WEATHERING	L	4604.00	SqFt	Comments:

Sample Number: 016 **Type:** R **Area:** 5000.00 SqFt **PCI:** 94

Re-Inspection Report

57	WEATHERING	L	5000.00	SqFt	Comments:

Network: MYF **Name:** MYF

Branch: R523 **Name:** RWY 5-23 **Use:** RUNWAY **Area:** 240,476 SqFt

Section: 02 of 7 **From:** MAP **To:** MAP **Last Const.:** 1/1/2013

Surface: AC **Family:** DEFAULT **Zone:** **Category:** **Rank:** P

Area: 34,058 SqFt **Length:** 454 Ft **Width:** 75 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Last Insp. Date: 8/18/2017 **TotalSamples:** 6 **Surveyed:** 2

Conditions: **PCI:** 94

Inspection Comments:

Sample Number: 001 **Type:** R **Area:** 6040.00 SqFt **PCI:** 94

Re-Inspection Report

57	WEATHERING	L	6040.00	SqFt	Comments:

Sample Number: 005 **Type:** R **Area:** 6072.00 SqFt **PCI:** 94

Re-Inspection Report

57	WEATHERING	L	6072.00	SqFt	Comments:

Network: MYF **Name:** MYF

Branch: R523 **Name:** RWY 5-23 **Use:** RUNWAY **Area:** 240,476 SqFt

Section: 03 of 7 **From:** MAP **To:** MAP **Last Const.:** 1/1/2013

Surface: AC **Family:** DEFAULT **Zone:** **Category:** **Rank:** P

Area: 23,348 SqFt **Length:** 310 Ft **Width:** 75 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Last Insp. Date: 8/18/2017 **TotalSamples:** 4 **Surveyed:** 1

Conditions: **PCI:** 94

Inspection Comments:

Sample Number: 003 **Type:** R **Area:** 6434.00 SqFt **PCI:** 94

Re-Inspection Report

57	WEATHERING	L	6434.00	SqFt	Comments:

Network: MYF **Name:** MYF

Branch: R523 **Name:** RWY 5-23 **Use:** RUNWAY **Area:** 240,476 SqFt

Section: 04 of 7 **From:** MAP **To:** MAP **Last Const.:** 11/1/2016

Surface: AC **Family:** DEFAULT **Zone:** **Category:** **Rank:** P

Area: 33,364 SqFt **Length:** 440 Ft **Width:** 75 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Last Insp. Date: 8/18/2017 **TotalSamples:** 7 **Surveyed:** 4

Conditions: **PCI:** 94

Inspection Comments:

Sample Number: 001 **Type:** R **Area:** 4569.00 SqFt **PCI:** 94

Re-Inspection Report

57	WEATHERING	L	4569.00	SqFt	Comments:

Sample Number: 003 **Type:** R **Area:** 4537.00 SqFt **PCI:** 94

Re-Inspection Report

57	WEATHERING	L	4537.00	SqFt	Comments:

Sample Number: 005 **Type:** R **Area:** 4537.00 SqFt **PCI:** 94

Re-Inspection Report

57	WEATHERING	L	4537.00	SqFt	Comments:

Sample Number: 007 **Type:** R **Area:** 6106.00 SqFt **PCI:** 94

Re-Inspection Report

57	WEATHERING	L	6106.00	SqFt	Comments:

Network: MYF **Name:** MYF

Branch: R523 **Name:** RWY 5-23 **Use:** RUNWAY **Area:** 240,476 SqFt

Section: 05 of 7 **From:** MAP **To:** MAP **Last Const.:** 11/1/2016

Surface: AC **Family:** DEFAULT **Zone:** **Category:** **Rank:** P

Area: 30,455 SqFt **Length:** 400 Ft **Width:** 75 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Last Insp. Date: 8/18/2017 **TotalSamples:** 6 **Surveyed:** 3

Conditions: **PCI:** 93

Inspection Comments:

Sample Number: 002 **Type:** R **Area:** 5337.00 SqFt **PCI:** 94

Re-Inspection Report

57	WEATHERING	L	5337.00	SqFt	Comments:

Sample Number: 004 **Type:** R **Area:** 5337.00 SqFt **PCI:** 92

Re-Inspection Report

50	PATCHING	L	24.00	SqFt	Comments:
57	WEATHERING	L	5287.00	SqFt	Comments:

Sample Number: 006 **Type:** R **Area:** 5337.00 SqFt **PCI:** 92

Re-Inspection Report

57	WEATHERING	M	66.00	SqFt	Comments:
57	WEATHERING	L	5271.00	SqFt	Comments:

Network: MYF **Name:** MYF

Branch: R523 **Name:** RWY 5-23 **Use:** RUNWAY **Area:** 240,476 SqFt

Section: 06 of 7 **From:** MAP **To:** MAP **Last Const.:** 11/1/2016

Surface: AC **Family:** DEFAULT **Zone:** **Category:** **Rank:** P

Area: 23,635 SqFt **Length:** 315 Ft **Width:** 75 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Last Insp. Date: 8/18/2017 **TotalSamples:** 5 **Surveyed:** 2

Conditions: **PCI:** 91

Inspection Comments:

Sample Number: 002 **Type:** R **Area:** 4667.00 SqFt **PCI:** 91

Re-Inspection Report

57	WEATHERING	M	208.00	SqFt	Comments:
57	WEATHERING	L	4459.00	SqFt	Comments:

Sample Number: 004 **Type:** R **Area:** 4667.00 SqFt **PCI:** 92

Re-Inspection Report

50	PATCHING	L	12.00	SqFt	Comments:
57	WEATHERING	L	4655.00	SqFt	Comments:

Network: MYF **Name:** MYF

Branch: R523 **Name:** RWY 5-23 **Use:** RUNWAY **Area:** 240,476 SqFt

Section: 07 of 7 **From:** MAP **To:** MAP **Last Const.:** 11/1/2016

Surface: AC **Family:** DEFAULT **Zone:** **Category:** **Rank:** P

Area: 5,586 SqFt **Length:** 74 Ft **Width:** 75 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Last Insp. Date: 8/18/2017 **TotalSamples:** 1 **Surveyed:** 1

Conditions: **PCI:** 94

Inspection Comments:

Sample Number: 001 **Type:** R **Area:** 5586.00 SqFt **PCI:** 94

Re-Inspection Report

57	WEATHERING	L	5586.00	SqFt	Comments:

Network: MYF **Name:** MYF

Branch: TWA **Name:** Taxiway A **Use:** TAXIWAY **Area:** 41,304 SqFt

Section: 01 of 2 **From:** MAP **To:** MAP **Last Const.:** 1/1/2013

Surface: AAC **Family:** DEFAULT **Zone:** **Category:** **Rank:** S

Area: 12,102 SqFt **Length:** 240 Ft **Width:** 50 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Last Insp. Date: 8/18/2017 **TotalSamples:** 3 **Surveyed:** 2

Conditions: **PCI:** 94

Inspection Comments:

Sample Number: 001 **Type:** R **Area:** 4356.00 SqFt **PCI:** 94

Re-Inspection Report

57	WEATHERING	L	4356.00	SqFt	Comments:

Sample Number: 003 **Type:** R **Area:** 3864.00 SqFt **PCI:** 94

Re-Inspection Report

57	WEATHERING	L	3864.00	SqFt	Comments:

Network: MYF **Name:** MYF

Branch: TWA **Name:** Taxiway A **Use:** TAXIWAY **Area:** 41,304 SqFt

Section: 02 of 2 **From:** MAP **To:** MAP **Last Const.:** 9/1/1996

Surface: AC **Family:** DEFAULT **Zone:** **Category:** **Rank:** S

Area: 29,202 SqFt **Length:** 580 Ft **Width:** 50 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Last Insp. Date: 8/18/2017 **TotalSamples:** 6 **Surveyed:** 3

Conditions: **PCI:** 79

Inspection Comments:

Sample Number: 002 **Type:** R **Area:** 4830.00 SqFt **PCI:** 81

Re-Inspection Report

57	WEATHERING	L	4830.00	SqFt	Comments:
48	L & T CR	L	222.00	Ft	Comments:

Sample Number: 004 **Type:** R **Area:** 4863.00 SqFt **PCI:** 75

Re-Inspection Report

57	WEATHERING	M	972.00	SqFt	Comments:
57	WEATHERING	L	3891.00	SqFt	Comments:
41	ALLIGATOR CR	L	12.00	SqFt	Comments:
48	L & T CR	L	147.00	Ft	Comments:

Sample Number: 006 **Type:** R **Area:** 4983.00 SqFt **PCI:** 81

Re-Inspection Report

57	WEATHERING	M	992.00	SqFt	Comments:
57	WEATHERING	L	3991.00	SqFt	Comments:
48	L & T CR	L	58.00	Ft	Comments:

Network: MYF **Name:** MYF

Branch: TWB **Name:** Taxiway B **Use:** TAXIWAY **Area:** 42,538 SqFt

Section: 01 of 4 **From:** MAP **To:** MAP **Last Const.:** 1/1/2013

Surface: AAC **Family:** DEFAULT **Zone:** **Category:** **Rank:** S

Area: 9,642 SqFt **Length:** 180 Ft **Width:** 50 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Last Insp. Date: 8/18/2017 **TotalSamples:** 2 **Surveyed:** 2

Conditions: **PCI:** 86

Inspection Comments:

Sample Number: 001 **Type:** R **Area:** 5582.00 SqFt **PCI:** 83

Re-Inspection Report

50	PATCHING	M	100.00	SqFt	Comments:
57	WEATHERING	L	5482.00	SqFt	Comments:

Sample Number: 002 **Type:** R **Area:** 4058.00 SqFt **PCI:** 91

Re-Inspection Report

57	WEATHERING	M	158.00	SqFt	Comments:
57	WEATHERING	L	3900.00	SqFt	Comments:

Network: MYF **Name:** MYF

Branch: TWB **Name:** Taxiway B **Use:** TAXIWAY **Area:** 42,538 SqFt

Section: 02 of 4 **From:** MAP **To:** MAP **Last Const.:** 7/1/1976

Surface: AAC **Family:** DEFAULT **Zone:** **Category:** **Rank:** S

Area: 11,358 SqFt **Length:** 220 Ft **Width:** 50 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Last Insp. Date: 8/18/2017 **TotalSamples:** 2 **Surveyed:** 2

Conditions: **PCI:** 19

Inspection Comments:

Sample Number: 001 **Type:** R **Area:** 6372.00 SqFt **PCI:** 8

Re-Inspection Report

52	RAVELING	L	1513.00	SqFt	Comments:
57	WEATHERING	H	4779.00	SqFt	Comments:
41	ALLIGATOR CR	M	60.00	SqFt	Comments:
52	RAVELING	H	80.00	SqFt	Comments:
43	BLOCK CR	M	2660.00	SqFt	Comments:
43	BLOCK CR	H	520.00	SqFt	Comments:

Sample Number: 002 **Type:** R **Area:** 4986.00 SqFt **PCI:** 33

Re-Inspection Report

48	L & T CR	H	119.00	Ft	Comments:
48	L & T CR	L	26.00	Ft	Comments:
41	ALLIGATOR CR	L	1630.00	SqFt	Comments:
57	WEATHERING	L	4986.00	SqFt	Comments:

Network: MYF **Name:** MYF

Branch: TWB **Name:** Taxiway B **Use:** TAXIWAY **Area:** 42,538 SqFt

Section: 03 of 4 **From:** MAP **To:** MAP **Last Const.:** 7/1/1976

Surface: AAC **Family:** DEFAULT **Zone:** **Category:** **Rank:** S

Area: 15,423 SqFt **Length:** 195 Ft **Width:** 50 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Last Insp. Date: 8/18/2017 **TotalSamples:** 3 **Surveyed:** 2

Conditions: **PCI:** 60

Inspection Comments:

Sample Number: 002 **Type:** R **Area:** 5129.00 SqFt **PCI:** 61

Re-Inspection Report

48	L & T CR	L	268.00	Ft	Comments:
57	WEATHERING	M	1260.00	SqFt	Comments:
52	RAVELING	L	3869.00	SqFt	Comments:
48	L & T CR	M	54.00	Ft	Comments:

Sample Number: 003 **Type:** R **Area:** 5096.00 SqFt **PCI:** 59

Re-Inspection Report

52	RAVELING	L	5096.00	SqFt	Comments:
48	L & T CR	M	35.00	Ft	Comments:
48	L & T CR	L	124.00	Ft	Comments:
43	BLOCK CR	L	904.00	SqFt	Comments:

Network: MYF **Name:** MYF

Branch: TWB **Name:** Taxiway B **Use:** TAXIWAY **Area:** 42,538 SqFt

Section: 04 of 4 **From:** MAP **To:** MAP **Last Const.:** 7/1/1976

Surface: AAC **Family:** DEFAULT **Zone:** **Category:** **Rank:** S

Area: 6,115 SqFt **Length:** 140 Ft **Width:** 40 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Last Insp. Date: 8/18/2017 **TotalSamples:** 1 **Surveyed:** 1

Conditions: **PCI:** 47

Inspection Comments:

Sample Number: 001 **Type:** R **Area:** 6115.00 SqFt **PCI:** 47

Re-Inspection Report

48	L & T CR	L	76.00	Ft	Comments:
48	L & T CR	M	124.00	Ft	Comments:
52	RAVELING	L	1320.00	SqFt	Comments:
57	WEATHERING	H	68.00	SqFt	Comments:
57	WEATHERING	M	1600.00	SqFt	Comments:
57	WEATHERING	L	3127.00	SqFt	Comments:
43	BLOCK CR	L	1584.00	SqFt	Comments:
41	ALLIGATOR CR	L	54.00	SqFt	Comments:

Network: MYF **Name:** MYF

Branch: TWC **Name:** Taxiway C **Use:** TAXIWAY **Area:** 92,436 SqFt

Section: 01 of 6 **From:** MAP **To:** MAP **Last Const.:** 11/1/2016

Surface: AC **Family:** DEFAULT **Zone:** **Category:** **Rank:** S

Area: 9,744 SqFt **Length:** 180 Ft **Width:** 50 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Last Insp. Date: 8/18/2017 **TotalSamples:** 2 **Surveyed:** 1

Conditions: **PCI:** 92

Inspection Comments:

Sample Number: 002 **Type:** R **Area:** 5046.00 SqFt **PCI:** 92

Re-Inspection Report

57	WEATHERING	L	5046.00	SqFt	Comments:
48	L & T CR	L	4.00	Ft	Comments:

Network: MYF **Name:** MYF

Branch: TWC **Name:** Taxiway C **Use:** TAXIWAY **Area:** 92,436 SqFt

Section: 02 of 6 **From:** MAP **To:** MAP **Last Const.:** 7/1/1976

Surface: AC **Family:** DEFAULT **Zone:** **Category:** **Rank:** S

Area: 43,094 SqFt **Length:** 860 Ft **Width:** 50 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Last Insp. Date: 8/18/2017 **TotalSamples:** 9 **Surveyed:** 5

Conditions: **PCI:** 83

Inspection Comments:

Sample Number: 001 **Type:** R **Area:** 4755.00 SqFt **PCI:** 50

Re-Inspection Report

57	WEATHERING	L	4755.00	SqFt	Comments:
50	PATCHING	L	130.00	SqFt	Comments:
45	DEPRESSION	L	115.00	SqFt	Comments:
45	DEPRESSION	M	336.00	SqFt	Comments:

Sample Number: 003 **Type:** R **Area:** 4775.00 SqFt **PCI:** 89

Re-Inspection Report

57	WEATHERING	L	4775.00	SqFt	Comments:
45	DEPRESSION	L	32.00	SqFt	Comments:

Sample Number: 005 **Type:** R **Area:** 4790.00 SqFt **PCI:** 94

Re-Inspection Report

57	WEATHERING	L	4790.00	SqFt	Comments:

Sample Number: 007 **Type:** R **Area:** 4800.00 SqFt **PCI:** 87

Re-Inspection Report

45	DEPRESSION	L	30.00	SqFt	Comments:
57	WEATHERING	L	4800.00	SqFt	Comments:
48	L & T CR	L	5.00	Ft	Comments:

Sample Number: 009 **Type:** R **Area:** 4820.00 SqFt **PCI:** 94

Re-Inspection Report

57	WEATHERING	L	4820.00	SqFt	Comments:

Network: MYF **Name:** MYF

Branch: TWC **Name:** Taxiway C **Use:** TAXIWAY **Area:** 92,436 SqFt

Section: 03 of 6 **From:** MAP **To:** MAP **Last Const.:** 1/1/2013

Surface: AAC **Family:** DEFAULT **Zone:** **Category:** **Rank:** S

Area: 10,160 SqFt **Length:** 200 Ft **Width:** 50 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Last Insp. Date: 8/18/2017 **TotalSamples:** 2 **Surveyed:** 2

Conditions: **PCI:** 92

Inspection Comments:

Sample Number: 001 **Type:** R **Area:** 5045.00 SqFt **PCI:** 92

Re-Inspection Report

57	WEATHERING	L	5045.00	SqFt	Comments:
48	L & T CR	L	2.00	Ft	Comments:

Sample Number: 002 **Type:** R **Area:** 5115.00 SqFt **PCI:** 92

Re-Inspection Report

57	WEATHERING	L	5115.00	SqFt	Comments:
50	PATCHING	L	11.00	SqFt	Comments:

Network: MYF **Name:** MYF

Branch: TWC **Name:** Taxiway C **Use:** TAXIWAY **Area:** 92,436 SqFt

Section: 04 of 6 **From:** MAP **To:** MAP **Last Const.:** 1/1/2013

Surface: AAC **Family:** DEFAULT **Zone:** **Category:** **Rank:** S

Area: 9,940 SqFt **Length:** 190 Ft **Width:** 50 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Last Insp. Date: 8/18/2017 **TotalSamples:** 2 **Surveyed:** 2

Conditions: **PCI:** 87

Inspection Comments:

Sample Number: 001 **Type:** R **Area:** 5075.00 SqFt **PCI:** 81

Re-Inspection Report

57	WEATHERING	L	5075.00	SqFt	Comments:
50	PATCHING	L	94.00	SqFt	Comments:
50	PATCHING	M	50.00	SqFt	Comments:

Sample Number: 002 **Type:** R **Area:** 4860.00 SqFt **PCI:** 94

Re-Inspection Report

57	WEATHERING	L	4860.00	SqFt	Comments:

Network: MYF **Name:** MYF

Branch: TWC **Name:** Taxiway C **Use:** TAXIWAY **Area:** 92,436 SqFt

Section: 05 of 6 **From:** MAP **To:** MAP **Last Const.:** 7/1/1976

Surface: AAC **Family:** DEFAULT **Zone:** **Category:** **Rank:** S

Area: 11,030 SqFt **Length:** 215 Ft **Width:** 50 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Last Insp. Date: 8/18/2017 **TotalSamples:** 2 **Surveyed:** 2

Conditions: **PCI:** 37

Inspection Comments:

Sample Number: 001 **Type:** R **Area:** 5650.00 SqFt **PCI:** 17

Re-Inspection Report

57	WEATHERING	H	3675.00	SqFt	Comments:
48	L & T CR	L	270.00	Ft	Comments:
50	PATCHING	L	138.00	SqFt	Comments:
48	L & T CR	M	18.00	Ft	Comments:
41	ALLIGATOR CR	M	913.00	SqFt	Comments:
57	WEATHERING	M	1837.00	SqFt	Comments:

Sample Number: 002 **Type:** R **Area:** 5375.00 SqFt **PCI:** 59

Re-Inspection Report

57	WEATHERING	L	4691.00	SqFt	Comments:
52	RAVELING	L	684.00	SqFt	Comments:
48	L & T CR	L	160.00	Ft	Comments:
48	L & T CR	M	4.00	Ft	Comments:
41	ALLIGATOR CR	L	65.00	SqFt	Comments:

Network: MYF **Name:** MYF

Branch: TWC **Name:** Taxiway C **Use:** TAXIWAY **Area:** 92,436 SqFt

Section: 06 of 6 **From:** MAP **To:** MAP **Last Const.:** 7/11/1985

Surface: AC **Family:** DEFAULT **Zone:** **Category:** **Rank:** S

Area: 8,468 SqFt **Length:** 200 Ft **Width:** 40 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Last Insp. Date: 8/18/2017 **TotalSamples:** 2 **Surveyed:** 2

Conditions: **PCI:** 43

Inspection Comments:

Sample Number: 001 **Type:** R **Area:** 4112.00 SqFt **PCI:** 36

Re-Inspection Report

48	L & T CR	M	83.00	Ft	Comments:
48	L & T CR	H	9.00	Ft	Comments:
43	BLOCK CR	L	728.00	SqFt	Comments:
52	RAVELING	L	982.00	SqFt	Comments:
57	WEATHERING	L	3130.00	SqFt	Comments:
41	ALLIGATOR CR	L	160.00	SqFt	Comments:
48	L & T CR	L	384.00	Ft	Comments:

Sample Number: 002 **Type:** R **Area:** 4355.00 SqFt **PCI:** 50

Re-Inspection Report

52	RAVELING	L	4355.00	SqFt	Comments:
50	PATCHING	L	38.00	SqFt	Comments:
48	L & T CR	M	6.00	Ft	Comments:
48	L & T CR	L	98.00	Ft	Comments:
41	ALLIGATOR CR	L	148.00	SqFt	Comments:

Network: MYF **Name:** MYF

Branch: TWD **Name:** Taxiway D **Use:** TAXIWAY **Area:** 11,820 SqFt

Section: 01 of 1 **From:** MAP **To:** MAP **Last Const.:** 7/11/1969

Surface: AAC **Family:** DEFAULT **Zone:** **Category:** **Rank:** S

Area: 11,820 SqFt **Length:** 235 Ft **Width:** 50 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Last Insp. Date: 8/18/2017 **TotalSamples:** 2 **Surveyed:** 2

Conditions: **PCI:** 40

Inspection Comments:

Sample Number: 001 **Type:** R **Area:** 5725.00 SqFt **PCI:** 52

Re-Inspection Report

48	L & T CR	L	9.00	Ft	Comments:
48	L & T CR	M	170.00	Ft	Comments:
48	L & T CR	H	18.00	Ft	Comments:
43	BLOCK CR	L	180.00	SqFt	Comments:
43	BLOCK CR	M	396.00	SqFt	Comments:
57	WEATHERING	M	3425.00	SqFt	Comments:
52	RAVELING	L	2300.00	SqFt	Comments:

Sample Number: 002 **Type:** R **Area:** 6094.00 SqFt **PCI:** 29

Re-Inspection Report

48	L & T CR	L	79.00	Ft	Comments:
48	L & T CR	M	35.00	Ft	Comments:
48	L & T CR	H	16.00	Ft	Comments:
43	BLOCK CR	L	975.00	SqFt	Comments:
43	BLOCK CR	M	1848.00	SqFt	Comments:
52	RAVELING	L	3762.00	SqFt	Comments:
57	WEATHERING	M	2332.00	SqFt	Comments:
41	ALLIGATOR CR	M	98.00	SqFt	Comments:

Network: MYF **Name:** MYF

Branch: TWE **Name:** Taxiway E **Use:** TAXIWAY **Area:** 16,803 SqFt

Section: 01 of 2 **From:** MAP **To:** MAP **Last Const.:** 1/1/2013

Surface: AAC **Family:** DEFAULT **Zone:** **Category:** **Rank:** S

Area: 13,575 SqFt **Length:** 265 Ft **Width:** 50 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Last Insp. Date: 8/18/2017 **TotalSamples:** 3 **Surveyed:** 1

Conditions: **PCI:** 88

Inspection Comments:

Sample Number: 003 **Type:** R **Area:** 3714.00 SqFt **PCI:** 88

Re-Inspection Report

57	WEATHERING	M	550.00	SqFt	Comments:
57	WEATHERING	L	3164.00	SqFt	Comments:

Network: MYF **Name:** MYF

Branch: TWE **Name:** Taxiway E **Use:** TAXIWAY **Area:** 16,803 SqFt

Section: 02 of 2 **From:** MAP **To:** MAP **Last Const.:** 11/1/2016

Surface: AC **Family:** DEFAULT **Zone:** **Category:** **Rank:** S

Area: 3,228 SqFt **Length:** 60 Ft **Width:** 50 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Last Insp. Date: 8/18/2017 **TotalSamples:** 1 **Surveyed:** 1

Conditions: **PCI:** 94

Inspection Comments:

Sample Number: 001 **Type:** R **Area:** 3228.00 SqFt **PCI:** 94

Re-Inspection Report

57	WEATHERING	L	3228.00	SqFt	Comments:

Network: MYF **Name:** MYF

Branch: TWF **Name:** Taxiway F **Use:** TAXIWAY **Area:** 69,865 SqFt

Section: 01 of 7 **From:** MAP **To:** MAP **Last Const.:** 1/1/2013

Surface: AAC **Family:** DEFAULT **Zone:** **Category:** **Rank:** S

Area: 9,205 SqFt **Length:** 170 Ft **Width:** 50 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Last Insp. Date: 8/18/2017 **TotalSamples:** 2 **Surveyed:** 2

Conditions: **PCI:** 94

Inspection Comments:

Sample Number: 001 **Type:** R **Area:** 4896.00 SqFt **PCI:** 94

Re-Inspection Report

57	WEATHERING	L	4896.00	SqFt	Comments:

Sample Number: 002 **Type:** R **Area:** 4308.00 SqFt **PCI:** 94

Re-Inspection Report

57	WEATHERING	L	4308.00	SqFt	Comments:

Network: MYF **Name:** MYF

Branch: TWF **Name:** Taxiway F **Use:** TAXIWAY **Area:** 69,865 SqFt

Section: 02 of 7 **From:** MAP **To:** MAP **Last Const.:** 2/1/2008

Surface: AAC **Family:** DEFAULT **Zone:** **Category:** **Rank:** S

Area: 11,362 SqFt **Length:** 225 Ft **Width:** 50 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Last Insp. Date: 8/18/2017 **TotalSamples:** 2 **Surveyed:** 2

Conditions: **PCI:** 62

Inspection Comments:

Sample Number: 001 **Type:** R **Area:** 5628.00 SqFt **PCI:** 71

Re-Inspection Report

45	DEPRESSION	L	30.00	SqFt	Comments:
48	L & T CR	L	158.00	Ft	Comments:
57	WEATHERING	M	5628.00	SqFt	Comments:

Sample Number: 002 **Type:** R **Area:** 5732.00 SqFt **PCI:** 52

Re-Inspection Report

48	L & T CR	M	70.00	Ft	Comments:
48	L & T CR	L	145.00	Ft	Comments:
57	WEATHERING	H	1504.00	SqFt	Comments:
57	WEATHERING	M	4227.00	SqFt	Comments:

Network: MYF **Name:** MYF

Branch: TWF **Name:** Taxiway F **Use:** TAXIWAY **Area:** 69,865 SqFt

Section: 03 of 7 **From:** MAP **To:** MAP **Last Const.:** 6/1/2009

Surface: AAC **Family:** DEFAULT **Zone:** **Category:** **Rank:** S

Area: 8,575 SqFt **Length:** 170 Ft **Width:** 50 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Last Insp. Date: 8/19/2017 **TotalSamples:** 2 **Surveyed:** 2

Conditions: **PCI:** 74

Inspection Comments:

Sample Number: 001 **Type:** R **Area:** 4340.00 SqFt **PCI:** 79

Re-Inspection Report

57	WEATHERING	L	4340.00	SqFt	Comments:
45	DEPRESSION	L	108.00	SqFt	Comments:
48	L & T CR	L	7.00	Ft	Comments:

Sample Number: 002 **Type:** R **Area:** 4234.00 SqFt **PCI:** 68

Re-Inspection Report

45	DEPRESSION	M	87.00	SqFt	Comments:
57	WEATHERING	H	70.00	SqFt	Comments:
57	WEATHERING	L	4164.00	SqFt	Comments:

Network: MYF **Name:** MYF

Branch: TWF **Name:** Taxiway F **Use:** TAXIWAY **Area:** 69,865 SqFt

Section: 04 of 7 **From:** MAP **To:** MAP **Last Const.:** 11/1/2016

Surface: AC **Family:** DEFAULT **Zone:** **Category:** **Rank:** S

Area: 7,598 SqFt **Length:** 150 Ft **Width:** 50 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Last Insp. Date: 8/18/2017 **TotalSamples:** 2 **Surveyed:** 2

Conditions: **PCI:** 94

Inspection Comments:

Sample Number: 001 **Type:** R **Area:** 3775.00 SqFt **PCI:** 94

Re-Inspection Report

57	WEATHERING	L	3775.00	SqFt	Comments:

Sample Number: 002 **Type:** R **Area:** 3822.00 SqFt **PCI:** 94

Re-Inspection Report

57	WEATHERING	L	3822.00	SqFt	Comments:

Network: MYF **Name:** MYF

Branch: TWF **Name:** Taxiway F **Use:** TAXIWAY **Area:** 69,865 SqFt

Section: 05 of 7 **From:** MAP **To:** MAP **Last Const.:** 6/1/2009

Surface: AAC **Family:** DEFAULT **Zone:** **Category:** **Rank:** S

Area: 19,325 SqFt **Length:** 385 Ft **Width:** 50 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Last Insp. Date: 8/18/2017 **TotalSamples:** 4 **Surveyed:** 3

Conditions: **PCI:** 76

Inspection Comments:

Sample Number: 001 **Type:** R **Area:** 5003.00 SqFt **PCI:** 71

Re-Inspection Report

57	WEATHERING	L	5003.00	SqFt	Comments:
48	L & T CR	L	7.00	Ft	Comments:
41	ALLIGATOR CR	M	20.00	SqFt	Comments:

Sample Number: 002 **Type:** R **Area:** 4988.00 SqFt **PCI:** 82

Re-Inspection Report

57	WEATHERING	L	3741.00	SqFt	Comments:
48	L & T CR	L	4.00	Ft	Comments:
57	WEATHERING	M	1247.00	SqFt	Comments:

Sample Number: 003 **Type:** R **Area:** 4388.00 SqFt **PCI:** 74

Re-Inspection Report

48	L & T CR	L	2.00	Ft	Comments:
57	WEATHERING	M	40.00	SqFt	Comments:
57	WEATHERING	L	4348.00	SqFt	Comments:
41	ALLIGATOR CR	L	28.00	SqFt	Comments:

Network: MYF **Name:** MYF

Branch: TWF **Name:** Taxiway F **Use:** TAXIWAY **Area:** 69,865 SqFt

Section: 06 of 7 **From:** MAP **To:** MAP **Last Const.:** 11/1/2016

Surface: AC **Family:** DEFAULT **Zone:** **Category:** **Rank:** S

Area: 10,220 SqFt **Length:** 200 Ft **Width:** 50 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Last Insp. Date: 8/18/2017 **TotalSamples:** 2 **Surveyed:** 2

Conditions: **PCI:** 93

Inspection Comments:

Sample Number: 001 **Type:** R **Area:** 5396.00 SqFt **PCI:** 92

Re-Inspection Report

57	WEATHERING	L	5396.00	SqFt	Comments:
50	PATCHING	L	12.00	SqFt	Comments:

Sample Number: 002 **Type:** R **Area:** 4824.00 SqFt **PCI:** 94

Re-Inspection Report

57	WEATHERING	L	4824.00	SqFt	Comments:

Network: MYF **Name:** MYF

Branch: TWF **Name:** Taxiway F **Use:** TAXIWAY **Area:** 69,865 SqFt

Section: 07 of 7 **From:** MAP **To:** MAP **Last Const.:** 11/1/2016

Surface: AC **Family:** DEFAULT **Zone:** **Category:** **Rank:** S

Area: 3,580 SqFt **Length:** 50 Ft **Width:** 50 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Last Insp. Date: 8/18/2017 **TotalSamples:** 1 **Surveyed:** 1

Conditions: **PCI:** 94

Inspection Comments:

Sample Number: 001 **Type:** R **Area:** 3580.00 SqFt **PCI:** 94

Re-Inspection Report

57	WEATHERING	L	3580.00	SqFt	Comments:

Network: MYF **Name:** MYF

Branch: TWG **Name:** Taxiway G **Use:** TAXIWAY **Area:** 97,845 SqFt

Section: 01 of 4 **From:** MAP **To:** MAP **Last Const.:** 11/1/2016

Surface: AC **Family:** DEFAULT **Zone:** **Category:** **Rank:** S

Area: 5,040 SqFt **Length:** 100 Ft **Width:** 50 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Last Insp. Date: 8/18/2017 **TotalSamples:** 1 **Surveyed:** 1

Conditions: **PCI:** 87

Inspection Comments:

Sample Number: 001 **Type:** R **Area:** 5040.00 SqFt **PCI:** 87

Re-Inspection Report

57	WEATHERING	M	825.00	SqFt	Comments:
57	WEATHERING	L	4215.00	SqFt	Comments:

Network: MYF **Name:** MYF

Branch: TWG **Name:** Taxiway G **Use:** TAXIWAY **Area:** 97,845 SqFt

Section: 02 of 4 **From:** MAP **To:** MAP **Last Const.:** 11/1/2016

Surface: AC **Family:** DEFAULT **Zone:** **Category:** **Rank:** S

Area: 36,735 SqFt **Length:** 730 Ft **Width:** 50 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Last Insp. Date: 8/18/2017 **TotalSamples:** 8 **Surveyed:** 3

Conditions: **PCI:** 94

Inspection Comments:

Sample Number: 002 **Type:** R **Area:** 4592.00 SqFt **PCI:** 94

Re-Inspection Report

57	WEATHERING	L	4592.00	SqFt	Comments:

Sample Number: 005 **Type:** R **Area:** 4586.00 SqFt **PCI:** 94

Re-Inspection Report

57	WEATHERING	L	4586.00	SqFt	Comments:

Sample Number: 008 **Type:** R **Area:** 4565.00 SqFt **PCI:** 94

Re-Inspection Report

57	WEATHERING	L	4565.00	SqFt	Comments:

Network: MYF **Name:** MYF

Branch: TWG **Name:** Taxiway G **Use:** TAXIWAY **Area:** 97,845 SqFt

Section: 03 of 4 **From:** MAP **To:** MAP **Last Const.:** 11/1/2016

Surface: AC **Family:** DEFAULT **Zone:** **Category:** **Rank:** S

Area: 8,645 SqFt **Length:** 170 Ft **Width:** 50 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Last Insp. Date: 8/18/2017 **TotalSamples:** 2 **Surveyed:** 2

Conditions: **PCI:** 94

Inspection Comments:

Sample Number: 001 **Type:** R **Area:** 4330.00 SqFt **PCI:** 94

Re-Inspection Report

57	WEATHERING	L	4330.00	SqFt	Comments:

Sample Number: 002 **Type:** R **Area:** 4315.00 SqFt **PCI:** 94

Re-Inspection Report

57	WEATHERING	L	4315.00	SqFt	Comments:

Network: MYF **Name:** MYF

Branch: TWG **Name:** Taxiway G **Use:** TAXIWAY **Area:** 97,845 SqFt

Section: 04 of 4 **From:** MAP **To:** MAP **Last Const.:** 11/1/2016

Surface: AC **Family:** DEFAULT **Zone:** **Category:** **Rank:** S

Area: 47,425 SqFt **Length:** 900 Ft **Width:** 50 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Last Insp. Date: 8/18/2017 **TotalSamples:** 10 **Surveyed:** 3

Conditions: **PCI:** 94

Inspection Comments:

Sample Number: 003 **Type:** R **Area:** 4596.00 SqFt **PCI:** 94

Re-Inspection Report

57	WEATHERING	L	4596.00	SqFt	Comments:

Sample Number: 006 **Type:** R **Area:** 4552.00 SqFt **PCI:** 94

Re-Inspection Report

57	WEATHERING	L	4552.00	SqFt	Comments:

Sample Number: 009 **Type:** R **Area:** 5926.00 SqFt **PCI:** 94

Re-Inspection Report

57	WEATHERING	L	5926.00	SqFt	Comments:

Network: MYF **Name:** MYF

Branch: TWG1 **Name:** Taxiway G1 **Use:** TAXIWAY **Area:** 12,254 SqFt

Section: 02 of 2 **From:** MAP **To:** MAP **Last Const.:** 11/1/2016

Surface: AC **Family:** DEFAULT **Zone:** **Category:** **Rank:** S

Area: 6,142 SqFt **Length:** 115 Ft **Width:** 50 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Last Insp. Date: 8/18/2017 **TotalSamples:** 1 **Surveyed:** 1

Conditions: **PCI:** 94

Inspection Comments:

Sample Number: 001 **Type:** R **Area:** 6142.00 SqFt **PCI:** 94

Re-Inspection Report

57	WEATHERING	L	6142.00	SqFt	Comments:

Network: MYF **Name:** MYF

Branch: TWG1 **Name:** Taxiway G1 **Use:** TAXIWAY **Area:** 12,254 SqFt

Section: 01 of 2 **From:** MAP **To:** MAP **Last Const.:** 11/1/2016

Surface: AC **Family:** DEFAULT **Zone:** **Category:** **Rank:** S

Area: 6,112 SqFt **Length:** 115 Ft **Width:** 50 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Last Insp. Date: 8/18/2017 **TotalSamples:** 1 **Surveyed:** 1

Conditions: **PCI:** 94

Inspection Comments:

Sample Number: 001 **Type:** R **Area:** 6112.00 SqFt **PCI:** 94

Re-Inspection Report

57	WEATHERING	L	6112.00	SqFt	Comments:

Network: MYF **Name:** MYF

Branch: TWH **Name:** Taxiway H **Use:** TAXIWAY **Area:** 182,427 SqFt

Section: 04 of 5 **From:** MAP **To:** MAP **Last Const.:** 7/1/1976

Surface: AAC **Family:** DEFAULT **Zone:** **Category:** **Rank:** S

Area: 38,998 SqFt **Length:** 965 Ft **Width:** 40 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Last Insp. Date: 8/18/2017 **TotalSamples:** 9 **Surveyed:** 2

Conditions: **PCI:** 48

Inspection Comments:

Sample Number: 002 **Type:** R **Area:** 4606.00 SqFt **PCI:** 51

Re-Inspection Report

48	L & T CR	M	26.00	Ft	Comments:
48	L & T CR	L	86.00	Ft	Comments:
52	RAVELING	L	896.00	SqFt	Comments:
57	WEATHERING	L	3710.00	SqFt	Comments:
43	BLOCK CR	L	2464.00	SqFt	Comments:

Sample Number: 009 **Type:** R **Area:** 4847.00 SqFt **PCI:** 46

Re-Inspection Report

41	ALLIGATOR CR	L	198.00	SqFt	Comments:
48	L & T CR	L	357.00	Ft	Comments:
48	L & T CR	M	96.00	Ft	Comments:
57	WEATHERING	M	1655.00	SqFt	Comments:
52	RAVELING	L	3192.00	SqFt	Comments:

Network: MYF **Name:** MYF

Branch: TWH **Name:** Taxiway H **Use:** TAXIWAY **Area:** 182,427 SqFt

Section: 05 of 5 **From:** MAP **To:** MAP **Last Const.:** 9/1/1996

Surface: AC **Family:** DEFAULT **Zone:** **Category:** **Rank:** S

Area: 50,000 SqFt **Length:** 1,000 Ft **Width:** 50 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Last Insp. Date: 8/18/2017 **TotalSamples:** 9 **Surveyed:** 1

Conditions: **PCI:** 64

Inspection Comments:

Sample Number: 008 **Type:** R **Area:** 5892.00 SqFt **PCI:** 64

Re-Inspection Report

41	ALLIGATOR CR	M	40.00	SqFt	Comments:
48	L & T CR	L	64.00	Ft	Comments:
57	WEATHERING	M	5892.00	SqFt	Comments:

Network: MYF **Name:** MYF

Branch: TWH **Name:** Taxiway H **Use:** TAXIWAY **Area:** 182,427 SqFt

Section: 01 of 5 **From:** MAP **To:** MAP **Last Const.:** 11/1/2016

Surface: AC **Family:** DEFAULT **Zone:** **Category:** **Rank:** S

Area: 17,946 SqFt **Length:** 445 Ft **Width:** 40 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Last Insp. Date: 8/18/2017 **TotalSamples:** 4 **Surveyed:** 2

Conditions: **PCI:** 90

Inspection Comments:

Sample Number: 002 **Type:** R **Area:** 3944.00 SqFt **PCI:** 86

Re-Inspection Report

57	WEATHERING	M	890.00	SqFt	Comments:
57	WEATHERING	L	3054.00	SqFt	Comments:

Sample Number: 004 **Type:** R **Area:** 5090.00 SqFt **PCI:** 94

Re-Inspection Report

57	WEATHERING	L	5090.00	SqFt	Comments:

Network: MYF **Name:** MYF

Branch: TWH **Name:** Taxiway H **Use:** TAXIWAY **Area:** 182,427 SqFt

Section: 02 of 5 **From:** MAP **To:** MAP **Last Const.:** 11/1/2016

Surface: AC **Family:** DEFAULT **Zone:** **Category:** **Rank:** S

Area: 17,908 SqFt **Length:** 425 Ft **Width:** 40 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Last Insp. Date: 8/18/2017 **TotalSamples:** 4 **Surveyed:** 2

Conditions: **PCI:** 94

Inspection Comments:

Sample Number: 002 **Type:** R **Area:** 3892.00 SqFt **PCI:** 94

Re-Inspection Report

57	WEATHERING	L	3892.00	SqFt	Comments:

Sample Number: 004 **Type:** R **Area:** 4210.00 SqFt **PCI:** 94

Re-Inspection Report

57	WEATHERING	L	4210.00	SqFt	Comments:

Network: MYF **Name:** MYF

Branch: TWH **Name:** Taxiway H **Use:** TAXIWAY **Area:** 182,427 SqFt

Section: 03 of 5 **From:** MAP **To:** MAP **Last Const.:** 7/1/1976

Surface: AAC **Family:** DEFAULT **Zone:** **Category:** **Rank:** S

Area: 57,575 SqFt **Length:** 1,430 Ft **Width:** 40 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Last Insp. Date: 8/18/2017 **TotalSamples:** 13 **Surveyed:** 3

Conditions: **PCI:** 47

Inspection Comments:

Sample Number: 005 **Type:** R **Area:** 4643.00 SqFt **PCI:** 45

Re-Inspection Report

41	ALLIGATOR CR	L	239.00	SqFt	Comments:
48	L & T CR	M	112.00	Ft	Comments:
48	L & T CR	L	307.00	Ft	Comments:
57	WEATHERING	L	1507.00	SqFt	Comments:
52	RAVELING	L	3136.00	SqFt	Comments:

Sample Number: 007 **Type:** A **Area:** 4635.00 SqFt **PCI:** 39

Re-Inspection Report

56	SWELLING	L	320.00	SqFt	Comments:
43	BLOCK CR	M	66.00	SqFt	Comments:
41	ALLIGATOR CR	L	137.00	SqFt	Comments:
48	L & T CR	L	183.00	Ft	Comments:
48	L & T CR	M	84.00	Ft	Comments:
57	WEATHERING	L	114.00	SqFt	Comments:
57	WEATHERING	M	765.00	SqFt	Comments:
52	RAVELING	L	3756.00	SqFt	Comments:

Sample Number: 011 **Type:** R **Area:** 4619.00 SqFt **PCI:** 51

Re-Inspection Report

48	L & T CR	L	146.00	Ft	Comments:
48	L & T CR	H	13.00	Ft	Comments:
52	RAVELING	L	1568.00	SqFt	Comments:
57	WEATHERING	L	3051.00	SqFt	Comments:
41	ALLIGATOR CR	L	118.00	SqFt	Comments:
48	L & T CR	L	8.00	Ft	Comments:

Network: MYF **Name:** MYF

Branch: TWJ **Name:** Taxiway J **Use:** TAXIWAY **Area:** 7,671 SqFt

Section: 01 of 1 **From:** MAP **To:** MAP **Last Const.:** 7/1/1976

Surface: AAC **Family:** DEFAULT **Zone:** **Category:** **Rank:** S

Area: 7,671 SqFt **Length:** 185 Ft **Width:** 40 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Last Insp. Date: 8/18/2017 **TotalSamples:** 2 **Surveyed:** 2

Conditions: **PCI:** 49

Inspection Comments:

Sample Number: 001 **Type:** R **Area:** 3790.00 SqFt **PCI:** 54

Re-Inspection Report

48	L & T CR	H	17.00	Ft	Comments:
48	L & T CR	M	31.00	Ft	Comments:
43	BLOCK CR	L	1255.00	SqFt	Comments:
48	L & T CR	L	34.00	Ft	Comments:
57	WEATHERING	M	1440.00	SqFt	Comments:
52	RAVELING	L	2350.00	SqFt	Comments:

Sample Number: 002 **Type:** R **Area:** 3880.00 SqFt **PCI:** 45

Re-Inspection Report

52	RAVELING	L	3880.00	SqFt	Comments:
48	L & T CR	L	60.00	Ft	Comments:
43	BLOCK CR	L	1510.00	SqFt	Comments:
43	BLOCK CR	M	750.00	SqFt	Comments:

Network: MYF **Name:** MYF

Branch: TWK **Name:** Taxiway K **Use:** TAXIWAY **Area:** 102,350 SqFt

Section: 01 of 1 **From:** MAP **To:** MAP **Last Const.:** 7/1/1976

Surface: AAC **Family:** DEFAULT **Zone:** **Category:** **Rank:** S

Area: 102,350 SqFt **Length:** 1,150 Ft **Width:** 85 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Last Insp. Date: 8/18/2017 **TotalSamples:** 20 **Surveyed:** 4

Conditions: **PCI:** 57

Inspection Comments:

Sample Number: 004 **Type:** R **Area:** 5242.00 SqFt **PCI:** 59

Re-Inspection Report

43	BLOCK CR	L	3494.00	SqFt	Comments:
57	WEATHERING	L	4858.00	SqFt	Comments:
52	RAVELING	L	384.00	SqFt	Comments:

Sample Number: 010 **Type:** R **Area:** 5422.00 SqFt **PCI:** 47

Re-Inspection Report

57	WEATHERING	L	4842.00	SqFt	Comments:
52	RAVELING	L	580.00	SqFt	Comments:
48	L & T CR	M	59.00	Ft	Comments:
43	BLOCK CR	L	690.00	SqFt	Comments:
43	BLOCK CR	M	1479.00	SqFt	Comments:

Sample Number: 014 **Type:** R **Area:** 5162.00 SqFt **PCI:** 64

Re-Inspection Report

57	WEATHERING	L	5162.00	SqFt	Comments:
43	BLOCK CR	L	3440.00	SqFt	Comments:

Sample Number: 020 **Type:** R **Area:** 5136.00 SqFt **PCI:** 58

Re-Inspection Report

52	RAVELING	L	520.00	SqFt	Comments:
57	WEATHERING	L	4616.00	SqFt	Comments:
43	BLOCK CR	M	542.00	SqFt	Comments:
43	BLOCK CR	L	336.00	SqFt	Comments:
48	L & T CR	L	34.00	Ft	Comments:

Network: MYF **Name:** MYF

Branch: TWL **Name:** Taxiway L **Use:** TAXIWAY **Area:** 6,137 SqFt

Section: 01 of 1 **From:** MAP **To:** MAP **Last Const.:** 11/1/2016

Surface: AC **Family:** DEFAULT **Zone:** **Category:** **Rank:** S

Area: 6,137 SqFt **Length:** 100 Ft **Width:** 50 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Last Insp. Date: 11/9/2017 **TotalSamples:** 1 **Surveyed:** 1

Conditions: **PCI:** 94

Inspection Comments:

Sample Number: 001 **Type:** R **Area:** 6137.00 SqFt **PCI:** 94

Re-Inspection Report

57	WEATHERING	L	6137.00	SqFt	Comments:

Network: MYF **Name:** MYF

Branch: TWM **Name:** Taxiway M **Use:** TAXIWAY **Area:** 27,714 SqFt

Section: 01 of 2 **From:** MAP **To:** MAP **Last Const.:** 1/1/2013

Surface: AAC **Family:** DEFAULT **Zone:** **Category:** **Rank:** S

Area: 14,304 SqFt **Length:** 264 Ft **Width:** 50 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Last Insp. Date: 8/18/2017 **TotalSamples:** 3 **Surveyed:** 2

Conditions: **PCI:** 91

Inspection Comments:

Sample Number: 001 **Type:** R **Area:** 5207.00 SqFt **PCI:** 89

Re-Inspection Report

50	PATCHING	L	87.00	SqFt	Comments:
57	WEATHERING	L	5120.00	SqFt	Comments:

Sample Number: 003 **Type:** R **Area:** 4530.00 SqFt **PCI:** 94

Re-Inspection Report

57	WEATHERING	L	4530.00	SqFt	Comments:

Network: MYF **Name:** MYF

Branch: TWM **Name:** Taxiway M **Use:** TAXIWAY **Area:** 27,714 SqFt

Section: 02 of 2 **From:** MAP **To:** MAP **Last Const.:** 11/1/2016

Surface: AC **Family:** DEFAULT **Zone:** **Category:** **Rank:** S

Area: 13,410 SqFt **Length:** 250 Ft **Width:** 50 Ft

Slabs: **Slab Length:** Ft **Slab Width:** Ft **Joint Length:** Ft

Shoulder: **Street Type:** **Grade:** 0 **Lanes:** 0

Section Comments:

Last Insp. Date: 8/18/2017 **TotalSamples:** 3 **Surveyed:** 2

Conditions: **PCI:** 93

Inspection Comments:

Sample Number: 001 **Type:** R **Area:** 4236.00 SqFt **PCI:** 92

Re-Inspection Report

57	WEATHERING	M	102.00	SqFt	Comments:
57	WEATHERING	L	4134.00	SqFt	Comments:

Sample Number: 003 **Type:** R **Area:** 4976.00 SqFt **PCI:** 94

Re-Inspection Report

57	WEATHERING	L	4976.00	SqFt	Comments:

Attachment E Heavy Weight Deflectometer Testing Plan and Location

Dynatest®

HWD Testing at Montgomery-Gibbs Executive and Brow Field Airports in San Diego County, CA

Montgomery-Gibbs Executive Airport	
Montgomery-Gibbs Executive Airport Operations	**Catherine Johnson** **Phone: 760-443-6523** **Albert Bejarano** **Phone: 915-820-2408**
Brown Field Airport	**Joe Hughey** **Mobile: 619-992-1031**
Atkins	**Katie Chou, Ph.D., P.E.** **Sr. Project Manager, Aviation Sector** **310.893.2048**
Dynatest Consulting, Inc.	**Jose Juarez (HWD Operator)** **Cell: 661 733-3729** **Dave McLean (HWD Operator)** **Cell: 805 890-6661** **Alvaro Ulloa, PhD, PE** **Cell:775.240.1315**
Dynatest Project Number	108B17
Project Location	San Diego County
Mobilization Date	07/17/2017
Testing Dates	Montgomery-Gibbs Executive Airport: 07/18/2017 – 07/19/2017 Brown Field Airport: 07/20/2017
Meeting Location and Time	1) **Montgomery-Gibbs Executive:** Airport Operations (3750 John J. Montgomery Dr., San Diego, CA 92123) 8:45 pm on July 18th, 2017 2) **Brown Field Airport:** 1424 Continental Street, San Diego, CA 92154 8:30pm on July 20th, 2017
Testing Schedule	3) **Montgomery-Gibbs Executive:** 9pm to 5am 4) **Brown Field Airport:** 9pm to 6am

Dynatest®

1) Montgomery-Gibbs Executive Airport

Testing Location

Feature	Length (ft.)	Number of HWD Test Lines	Offset (ft.)	HWD Testing Intervals	Number of HWD Test Points	Testing Date
Montgomery Field Airport						
Runway 10L-28R	4,600	2	10	200	46	07/18/17
Runway 10R-28L	3,400	2	10	200	34	07/18/17
Runway 5-23	3,400	2	10	200	34	07/18/17
Taxiway A	606	2	10	100	12	07/18/17
Taxiway B	390	2	10	50	16	07/18/17
Taxiway C	2,038	2	10	200	20	07/18/17
Taxiway D	265	2	10	50	11	07/19/17
Taxiway E	250	2	10	50	10	07/18/17
Taxiway F	1,523	2	10	200	15	07/18/17
Taxiway G	1,938	2	10	200	19	07/18/17
Taxiway G1	270	2	10	50	11	07/19/17
Taxiway M	690	2	10	100	14	07/19/17
Taxiway H	4,335	2	10	200	43	07/19/17
Taxiway K	1,135	2	10	100	23	07/19/17
Taxiway L	1,017	2	10	100	20	07/19/17
Taxiway J	203	2	10	50	8	07/19/17
Subtotal Number of HWD Test Points					**336**	

1) File names: RWY10L28R_R1, RWY10L28R_L1
2) File names: RWY10R28L_R1, RWY10R28L_L1
3) File names: RWY5-23_R1, RWY5-23_L1
4) File names: TWYA_R1, TWYA_L1
5) File names: TWYB_R1, TWYB _L1
6) File names: TWYC_R1, TWYC _L1
7) File names: TWYD_R1, TWYD _L1
8) File names: TWYE_R1, TWYE _L1
9) File names: TWYF_R1, TWYF _L1
10) File names: TWYG_R1, TWYG _L1
11) File names: TWYG1_R1, TWYG1 _L1
12) File names: TWYM_R1, TWYM_L1
13) File names: TWYH_R1, TWYH_L1
14) File names: TWYK_R1, TWYK_L1
15) File names: TWYL_R1, TWYL_L1
16) File names: TWYJ_R1, TWYJ_L1



a) **Aerial View of Montgomery-Gibbs Executive Airport**

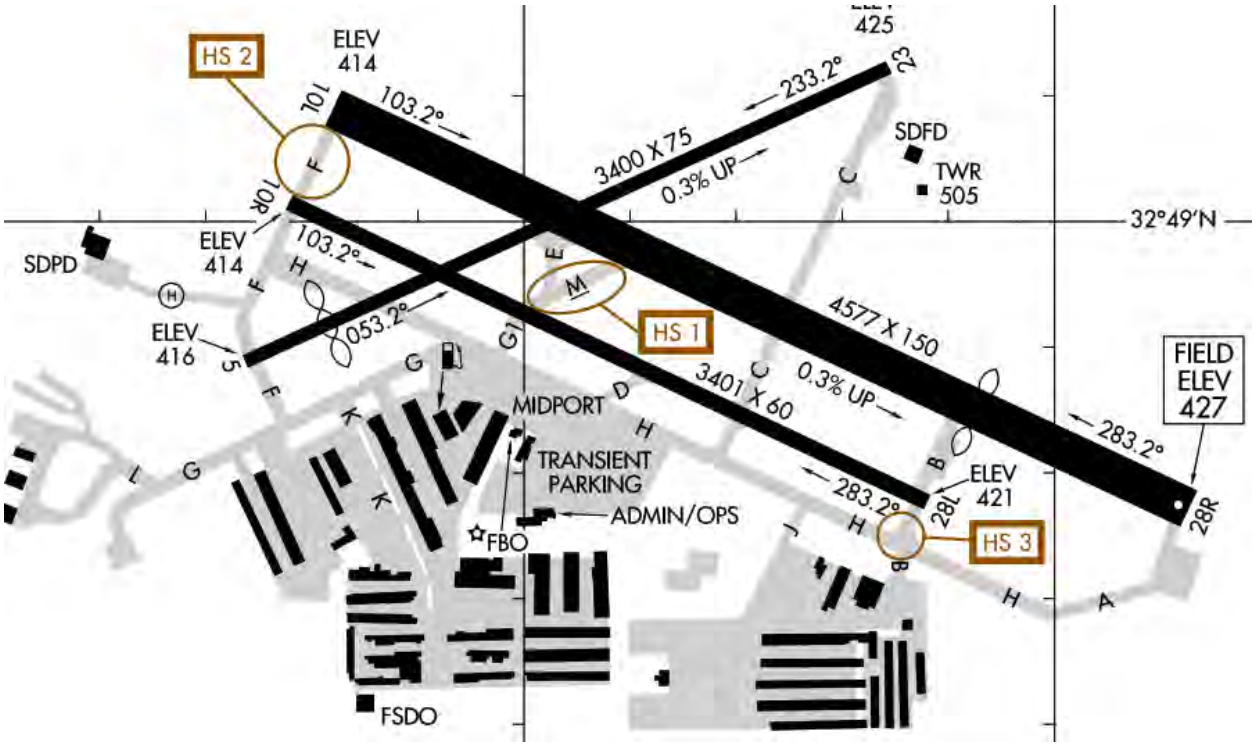


Figure 1. Features Location at Montgomery-Gibbs Executive Airport

Attachment F Pavement Coring Data

SCST, Inc.
Corporate Headquarters
6280 Riverdale Street
San Diego, CA 92120
P 619.280.4321
T 877.215.4321
F 619.280.4717
W www.scst.com

SDVOSB . DVBE

October 23, 2017 **SCST Project No. 170120P3**

Mr. Michael Hotaling
Aviation Practice Leader
C&S Engineers, Inc.
2020 Camino del Rio N., Suite 1000
San Diego, CA 92108

Subject: CORING ASSESSMENT
MASTERPLAN FOR MONTGOMERY-GIBBS AND BROWN AIRFIELDS
SAN DIEGO, CALIFORNIA

Dear Mr. Hotaling:

In accordance with your request, SCST, Inc. provided a geotechnical assessment of the pavement for the subject project (Figures 1 and 2). Our scope of work included a field investigation to assess the thickness of the asphalt concrete pavement section. We performed five cores of the pavement section at each of the two airfields (Figures 2 and 4). The cores were photodocumented (attached) and transported to our geotechnical laboratory to hold. The cores were patched with high strength rapid set concrete. The underlying subgrade was not sampled and laboratory testing was not performed.

We appreciate the opportunity to provide services on this project. If you have any questions or if we may be of further service, please contact our office at 619-280-4321.

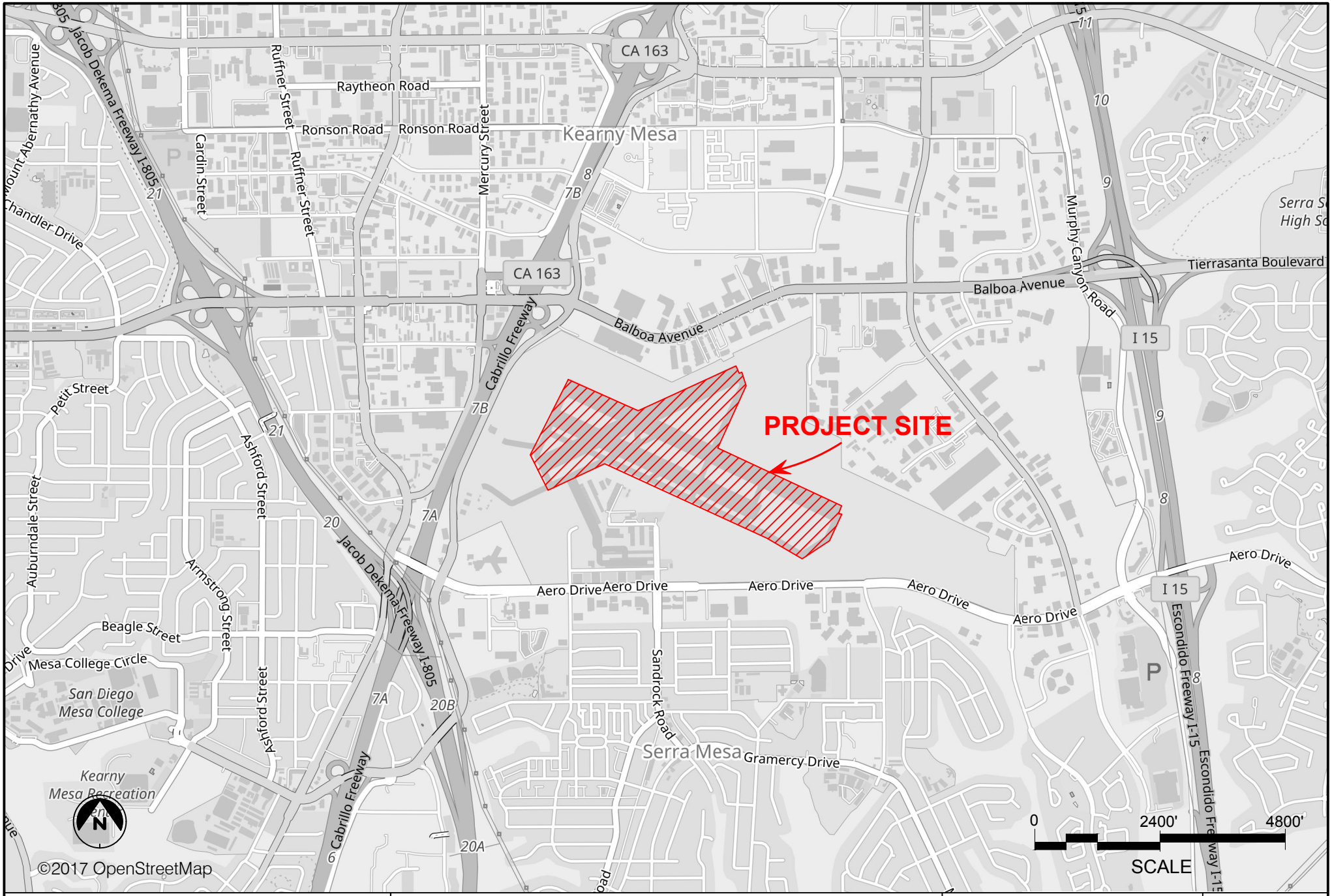
Respectfully Submitted,
SCST, INC.

Emil Rudolph, PE, GE
Principal Engineer

ER:

Attachments: Figures 1 & 3 – Site Vicinity Maps
Figures 2 & 4 – Core Location Map
Core Photographs and Core Data

(1) Addressee via e-mail: mhotaling@cscos.com
(1) Mr. Ralph Redman via e-mail: rredman@cscos.com
(1) Ms. Katie Chow via e-mail: Katie.Chou@atkinsglobal.com



SCST, Inc.

SITE VICINITY MAP
Airport Master Plan for Montgomery-Gibbs Airport
San Diego, California

Date: October, 2017
By: MAW/DTC
Job No.: 170120P3-1

Figure:
1



SCST LEGEND:

C-5 Approximate Location of Coring

SCST, Inc.

CORE LOCATION MAP

Airport Master Plan for Montgomery-Gibbs Airport
San Diego, California

Date: October, 2017
By: MAW/DTC
Job No.: 170120P3-1

Figure:
2

Field Report

SCST Inc. - San Diego
LEA: 47, Exp: 04/25/2021
6280 Riverdale Street
San Diego, CA 92120
Phone: (619) 280-4321
Fax: (619) 280-4717

Client:
C&S Companies
2020 Camino Del Rio North, Suite 1000
San Diego, CA 92108

Project:
170120P3
City of SD, Montgomery & Brown Field Master Planning GI - C&S
1424 Continental St. San Diego, CA 92154

Technician: Uhde, Vince
Certification: EIT
Date: 08/16/2017

Authority Having Jurisdiction: Other
Other Jurisdiction: FAA

Permit Number: N/A

Architect: N/A
Engineer: C&S, ATKINS GLOBAL
Contractor: SCST, INC.

Start Time 20:00
End Time: 04:00
Time (Hours): 8.00

Location Details: MONTGOMERY FIELD, CITY OF SAN DIEGO, CA.

Service Being Performed: Technician Services
Type of Inspection: Other
Other Type of Inspection: PAVEMENT INVESTIGATION

Material Classification: ASPHALT CONCRETE

Details: CORE THROUGH EXISTING PAVEMENTS AT LOCATIONS: RWY-23, RW-28L (X2), TWY-HOTEL (X2)

Caption: SUMMARY REPORT ATTACHED.

See Daily_Report_MYF_VAU.pdf in the documents section at the end of this report.

Status of Work Element: Work Element Inspection Completed, In Accordance with Approved Documents.

Discrepancy: No

cc: Project Architect; Structural Engineer; Project Inspector; DSA Regional Office (If Applicable);

DAILY REPORT OF FIELD OPERATIONSM: MONTGOMERY FIELD PAVEMENT GI

DATE OF WORK: **8/16/2017**

STAFF: **Vincent A. Uhde, SCST and Albert Berjarano, City of San Diego (escort)**

TOOLS: 6" Coring Machine, generator and flood lights

Description of work: Core through existing flexible asphalt concrete pavement at approved locations to assess total pavement thickness.

Location	**Total AC Thickness (inches)**	**Notes**
C-1	2¾	
C-2	3	
C-3	4½	
C-4	3¼	
C-5	6½	

SCST, Inc
Montgomery Field
Job No.: 170120P3
San Diego, CA

Core No.:

C-1



SCST ENGINEERING	**SCST, Inc** Montgomery Field Job No.: 170120P3 San Diego, CA	**Core No.:** **C-2**



SCST, Inc
Montgomery Field
Job No.: 170120P3
San Diego, CA

Core No.:

C-3



SCST ENGINEERING	**SCST, Inc** Montgomery Field Job No.: 170120P3 San Diego, CA	**Core No.:** **C-4**




SCST, Inc
Montgomery Field
Job No.: 170120P3
San Diego, CA
Core No.:
C-5
9"
8"
7"
6"
5"
4"
3"
2"
1"
0"

Attachment G PCN Calculation Output

MYF_28R_CDF 01550_PCN 48

This file name = PCN Results Flexible 5-22-2018 17;17;21.txt
Library file name = C:\Program Files (x86)\COMFAA 30\MYF Traffic_1_28R Recal.Ext
Units = English

Evaluation pavement type is flexible and design procedure is CBR.
Alpha Values are those approved by the ICAO in 2007.

CBR = 7.70 (Subgrade Category is C(6))
Evaluation pavement thickness = 21.90 in
Pass to Traffic Cycle (PtoTC) Ratio = 0.17 (non-standard)
Maximum number of wheels per gear = 2
Maximum number of gears per aircraft = 2

No aircraft have 4 or more wheels per gear. The FAA recommends a reference section assuming 3 inches of HMA and 6 inches of crushed aggregate for equivalent thickness calculations.

Results Table 1. Input Traffic Data

No.	Aircraft Name	Gross Weight	Percent Gross Wt	Tire Press	Annual Deps	20-yr Coverages	6D Thick
1	Single Wheel 5	5,950	100.00	45.0	610	278	5.15
2	Learjet-35A/65A	18,000	95.00	171.0	255	99	5.33
3	Citation-V	16,300	95.00	130.0	63	19	4.64
4	Citation-V	16,630	95.00	130.0	63	19	4.69
5	Citation-550B	14,800	95.00	130.0	306	89	5.94
6	Citation-525	11,850	95.00	98.0	542	163	5.67
7	Single Wheel 2	2,450	100.00	30.0	5,062	1,813	3.40
8	Bonanza-F-36	3,650	95.00	40.0	26,167	6,838	3.61
9	Baron-E-55	5,100	95.00	56.0	9,861	2,575	4.45
10	Single Wheel 12.5	12,500	95.00	50.0	1,561	673	6.05
11	EC130 Eurocopter	5,351	100.00	45.0	502	217	4.73
12	C-130	165,000	95.00	105.0	502	761	18.77
13	Single Wheel 10	11,200	100.00	50.0	303	179	7.08
14	Single Wheel 2.5	2,500	100.00	30.0	402	145	2.58
15	Single Wheel 5	5,732	100.00	45.0	628	281	5.06
16	Single Wheel 2.4	2,440	100.00	30.0	746	267	2.77

17	Single Wheel 2.2	2,200	100.00	30.0	3,931	1,335	3.13

Results Table 2. PCN Values

No.	Aircraft Name	Critical Aircraft Total Equiv. Covs.	Thickness for Total Equiv. Covs.	Maximum Allowable Gross Weight	ACN Thick at Max. Allowable Gross Weight	CDF	PCN on C(6)
1	Single Wheel 5	>5,000,000	14.39	13,790	13.45	0.0000	8.7
2	Learjet-35A/65A	>5,000,000	14.32	38,555	16.06	0.0000	12.4
3	Citation-V	>5,000,000	20.42	18,746	12.58	0.0000	7.6
4	Citation-V	>5,000,000	20.63	18,746	12.58	0.0000	7.6
5	Citation-550B	>5,000,000	19.46	18,746	12.58	0.0000	7.6
6	Citation-525	>5,000,000	17.01	19,653	12.63	0.0000	7.7
7	Single Wheel 2	>5,000,000	7.78	19,417	13.94	0.0000	9.4
8	Bonanza-F-36	>5,000,000	7.42	31,797	13.70	0.0000	9.0
9	Baron-E-55	>5,000,000	9.88	25,065	13.32	0.0000	8.5
10	Single Wheel 12.5	>5,000,000	15.27	25,719	13.08	0.0000	8.2
11	EC130 Eurocopter	>5,000,000	13.64	13,790	13.45	0.0000	8.7
12	C-130	761	18.77	216,759	31.54	0.1550	48.0
13	Single Wheel 10	>5,000,000	20.97	12,217	13.08	0.0000	8.2
14	Single Wheel 2.5	>5,000,000	7.86	19,417	13.94	0.0000	9.4
15	Single Wheel 5	>5,000,000	14.12	13,790	13.45	0.0000	8.7
16	Single Wheel 2.4	>5,000,000	7.76	19,417	13.94	0.0000	9.4
17	Single Wheel 2.2	>5,000,000	7.37	19,417	13.94	0.0000	9.4
					Total CDF =	0.1550	

Results Table 3. Flexible ACN at Indicated Gross Weight and Strength

No.	Aircraft Name	Gross Weight	% GW on Main Gear	Tire Pressure	ACN Thick	ACN on C(6)
1	Single Wheel 5	5,950	100.00	45.0	8.84	3.8
2	Learjet-35A/65A	18,000	95.00	171.0	10.15	5.0
3	Citation-V	16,300	95.00	130.0	11.73	6.6
4	Citation-V	16,630	95.00	130.0	11.85	6.8
5	Citation-550B	14,800	95.00	130.0	11.18	6.0
6	Citation-525	11,850	95.00	98.0	9.81	4.6

7	Single Wheel 2	2,450	100.00	30.0	4.95	1.2
8	Bonanza-F-36	3,650	95.00	40.0	4.64	1.0
9	Baron-E-55	5,100	95.00	56.0	6.01	1.7
10	Single Wheel 12.5	12,500	95.00	50.0	9.12	4.0
11	EC130 Eurocopter	5,351	100.00	45.0	8.38	3.4
12	C-130	165,000	95.00	105.0	26.87	34.8
13	Single Wheel 10	11,200	100.00	50.0	12.52	7.6
14	Single Wheel 2.5	2,500	100.00	30.0	5.00	1.2
15	Single Wheel 5	5,732	100.00	45.0	8.67	3.6
16	Single Wheel 2.4	2,440	100.00	30.0	4.94	1.2
17	Single Wheel 2.2	2,200	100.00	30.0	4.69	1.1

Results Table 4. Summary Output for Copy and Paste Into the Support Spread Sheet

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Num,Plane,GWin,ACNin,ADout,6Dt,COV20yr,COVtoF,CDFt,GWcdf,PCNcdf,EVALt,SUBcode,KorCBR,PtoTC,FlexOrRig
1,Single Wheel 5,5950.000,3.8,104,5.15,2.77550E+002,1.01423E+304,14.39,13789.884,8.7,21.9,C,7.70,0.17,F
2,Learjet-35A/65A,18000.000,5.0,43,5.33,9.93428E+001,1.01423E+304,14.32,38554.953,12.4,21.9,C,7.70,0.17,F
3,Citation-V,16300.000,6.6,11,4.64,1.92884E+001,1.01423E+304,20.42,18745.650,7.6,21.9,C,7.70,0.17,F
4,Citation-V,16630.000,6.8,11,4.69,1.94818E+001,1.01423E+304,20.63,18745.645,7.6,21.9,C,7.70,0.17,F
5,Citation-550B,14800.000,6.0,52,5.94,8.92890E+001,1.01423E+304,19.46,18745.562,7.6,21.9,C,7.70,0.17,F
6,Citation-525,11850.000,4.6,92,5.67,1.62971E+002,3.13862E+237,17.01,19652.507,7.7,21.9,C,7.70,0.17,F
7,Single Wheel 2,2450.000,1.2,861,3.40,1.81337E+003,1.01423E+304,7.78,19417.053,9.4,21.9,C,7.70,0.17,F
8,Bonanza-F-36,3650.000,1.0,4448,3.61,6.83840E+003,1.01423E+304,7.42,31796.925,9.0,21.9,C,7.70,0.17,F
9,Baron-E-55,5100.000,1.7,1676,4.45,2.57453E+003,1.01423E+304,9.88,25064.892,8.5,21.9,C,7.70,0.17,F
10,Single Wheel 12.5,12500.000,4.0,265,6.05,6.73422E+002,1.01423E+304,15.27,25719.018,8.2,21.9,C,7.70,0.17,F
11,EC130 Eurocopter,5351.000,3.4,85,4.73,2.16711E+002,1.01423E+304,13.64,13789.851,8.7,21.9,C,7.70,0.17,F
12,C-130,165000.000,34.8,85,18.77,7.60944E+002,4.90940E+003,18.77,216758.975,48.0,21.9,C,7.70,0.17,F
13,Single Wheel 10,11200.000,7.6,52,7.08,1.78857E+002,1.01423E+304,20.97,12216.553,8.2,21.9,C,7.70,0.17,F
14,Single Wheel 2.5,2500.000,1.2,68,2.58,1.45463E+002,1.01423E+304,7.86,19417.053,9.4,21.9,C,7.70,0.17,F
15,Single Wheel 5,5732.000,3.6,107,5.06,2.80505E+002,1.01423E+304,14.12,13789.876,8.7,21.9,C,7.70,0.17,F
16,Single Wheel 2.4,2440.000,1.2,127,2.77,2.66699E+002,1.01423E+304,7.76,19417.053,9.4,21.9,C,7.70,0.17,F
17,Single Wheel 2.2,2200.000,1.1,668,3.13,1.33483E+003,1.01423E+304,7.37,19417.052,9.4,21.9,C,7.70,0.17,F
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MYF_28R_CDF 00000

This file name = PCN Results Flexible 5-22-2018 17;01;02.txt
Library file name = C:\Program Files (x86)\COMFAA 30\MYF Traffic_1_28R Recal_b.Ext
Units = English

Evaluation pavement type is flexible and design procedure is CBR.
Alpha Values are those approved by the ICAO in 2007.

CBR = 7.70 (Subgrade Category is C(6))
Evaluation pavement thickness = 21.90 in
Pass to Traffic Cycle (PtoTC) Ratio = 1.00
Maximum number of wheels per gear = 2
Maximum number of gears per aircraft = 2

No aircraft have 4 or more wheels per gear. The FAA recommends a reference section assuming 3 inches of HMA and 6 inches of crushed aggregate for equivalent thickness calculations.

Results Table 1. Input Traffic Data

No.	Aircraft Name	Gross Weight	Percent Gross Wt	Tire Press	Annual Deps	20-yr Coverages	6D Thick
1	Single Wheel 5	5,950	100.00	45.0	610	1,633	6.22
2	Learjet-35A/65A	18,000	95.00	171.0	255	584	6.72
3	Citation-V	16,300	95.00	130.0	63	113	6.47
4	Citation-V	16,630	95.00	130.0	63	115	6.54
5	Citation-550B	14,800	95.00	130.0	306	525	7.51
6	Citation-525	11,850	95.00	98.0	542	959	6.99
7	Single Wheel 2	2,450	100.00	30.0	5,062	10,667	3.91
8	Bonanza-F-36	3,650	95.00	40.0	26,167	40,226	4.05
9	Baron-E-55	5,100	95.00	56.0	9,861	15,144	5.08
10	Single Wheel 12.5	12,500	95.00	50.0	1,561	3,961	7.12
11	EC130 Eurocopter	5,351	100.00	45.0	502	1,275	5.77
12	Single Wheel 10	11,200	100.00	50.0	303	1,052	8.69
13	Single Wheel 2.5	2,500	100.00	30.0	402	856	3.19
14	Single Wheel 5	5,732	100.00	45.0	628	1,650	6.11
15	Single Wheel 2.4	2,440	100.00	30.0	746	1,569	3.35
16	Single Wheel 2.2	2,200	100.00	30.0	3,931	7,852	3.62

Results Table 2. PCN Values

No.	Aircraft Name	Critical Aircraft Total Equiv. Covs.	Thickness for Total Equiv. Covs.	Maximum Allowable Gross Weight	ACN Thick at Max. Allowable Gross Weight	CDF	PCN on C(6)
1	Single Wheel 5	88,181	8.20	42,431	23.60	0.0000	26.8
2	Learjet-35A/65A	88,181	9.78	71,877	22.58	0.0000	24.6
3	Citation-V	88,181	11.64	57,709	22.08	0.0000	23.5
4	Citation-V	88,181	11.76	57,709	22.08	0.0000	23.5
5	Citation-550B	88,181	11.09	57,709	22.08	0.0000	23.5
6	Citation-525	88,181	9.69	60,525	22.17	0.0000	23.7
7	Single Wheel 2	88,181	4.43	59,748	24.45	0.0000	28.8
8	Bonanza-F-36	88,181	4.23	97,659	24.02	0.0000	27.8
9	Baron-E-55	88,181	5.63	77,252	23.38	0.0000	26.3
10	Single Wheel 12.5	88,181	8.70	79,216	22.95	0.0000	25.4
11	EC130 Eurocopter	88,181	7.78	42,431	23.60	0.0000	26.8
12	Single Wheel 10	88,181	11.95	37,628	22.95	0.0000	25.4
13	Single Wheel 2.5	88,181	4.48	59,748	24.45	0.0000	28.8
14	Single Wheel 5	88,181	8.05	42,431	23.60	0.0000	26.8
15	Single Wheel 2.4	88,181	4.43	59,748	24.45	0.0000	28.8
16	Single Wheel 2.2	88,181	4.20	59,748	24.45	0.0000	28.8
					Total CDF =	0.0000	

When computing the numbers of coverages to failure, the coverages for none of the aircraft converged at a pavement thickness greater than 99 percent of the evaluation thickness. This means that the life of the pavement is unlimited and the pavement is very strong in relation to the aircraft loading. The relative aircraft load evaluations are also unreliable. Consider reviewing the procedures used to determine the evaluation thickness and the strength of the support. The thicknesses for unlimited operations of each of the aircraft are as follows.

Results Table 2a. Thicknesses for Unlimited Operations

Single Wheel 5	14.39
Learjet-35A/65A	14.32

Citation-V	20.42
Citation-V	20.63
Citation-550B	19.46
Citation-525	17.01
Single Wheel 2	7.78
Bonanza-F-36	7.42
Baron-E-55	9.88
Single Wheel 12.5	15.27
EC130 Eurocopter	13.64
Single Wheel 10	20.97
Single Wheel 2.5	7.86
Single Wheel 5	14.12
Single Wheel 2.4	7.76
Single Wheel 2.2	7.37

Results Table 3. Flexible ACN at Indicated Gross Weight and Strength

No.	Aircraft Name	Gross Weight	% GW on Main Gear	Tire Pressure	ACN Thick	ACN on C(6)
1	Single Wheel 5	5,950	100.00	45.0	8.84	3.8
2	Learjet-35A/65A	18,000	95.00	171.0	10.15	5.0
3	Citation-V	16,300	95.00	130.0	11.73	6.6
4	Citation-V	16,630	95.00	130.0	11.85	6.8
5	Citation-550B	14,800	95.00	130.0	11.18	6.0
6	Citation-525	11,850	95.00	98.0	9.81	4.6
7	Single Wheel 2	2,450	100.00	30.0	4.95	1.2
8	Bonanza-F-36	3,650	95.00	40.0	4.64	1.0
9	Baron-E-55	5,100	95.00	56.0	6.01	1.7
10	Single Wheel 12.5	12,500	95.00	50.0	9.12	4.0
11	EC130 Eurocopter	5,351	100.00	45.0	8.38	3.4
12	Single Wheel 10	11,200	100.00	50.0	12.52	7.6
13	Single Wheel 2.5	2,500	100.00	30.0	5.00	1.2
14	Single Wheel 5	5,732	100.00	45.0	8.67	3.6
15	Single Wheel 2.4	2,440	100.00	30.0	4.94	1.2
16	Single Wheel 2.2	2,200	100.00	30.0	4.69	1.1

Results Table 4. Summary Output for Copy and Paste Into the Support Spread Sheet

Num,Plane,GWin,ACNin,ADout,6Dt,COV20yr,COVtoF,CDFt,GWcdf,PCNcdf,EVALt,SUBcode,KorCBR,PtoTC,FlexOrRig
1,Single Wheel 5,5950.000,3.8,610,6.22,1.63265E+003,1.01423E+304,8.20,42431.278,26.8,21.9,C,7.70,1.00,F
2,Learjet-35A/65A,18000.000,5.0,255,6.72,5.84370E+002,1.01423E+304,9.78,71876.671,24.6,21.9,C,7.70,1.00,F
3,Citation-V,16300.000,6.6,63,6.47,1.13461E+002,1.01423E+304,11.64,57708.964,23.5,21.9,C,7.70,1.00,F
4,Citation-V,16630.000,6.8,63,6.54,1.14599E+002,1.01423E+304,11.76,57708.964,23.5,21.9,C,7.70,1.00,F
5,Citation-550B,14800.000,6.0,306,7.51,5.25230E+002,1.01423E+304,11.09,57708.964,23.5,21.9,C,7.70,1.00,F
6,Citation-525,11850.000,4.6,542,6.99,9.58654E+002,1.01423E+304,9.69,60525.017,23.7,21.9,C,7.70,1.00,F
7,Single Wheel 2,2450.000,1.2,5062,3.91,1.06669E+004,1.01423E+304,4.43,59748.375,28.8,21.9,C,7.70,1.00,F
8,Bonanza-F-36,3650.000,1.0,26167,4.05,4.02259E+004,1.01423E+304,4.23,97659.303,27.8,21.9,C,7.70,1.00,F
9,Baron-E-55,5100.000,1.7,9861,5.08,1.51443E+004,1.01423E+304,5.63,77251.882,26.3,21.9,C,7.70,1.00,F
10,Single Wheel
12.5,12500.000,4.0,1561,7.12,3.96131E+003,1.01423E+304,8.70,79216.348,25.4,21.9,C,7.70,1.00,F
11,EC130 Eurocopter,5351.000,3.4,502,5.77,1.27477E+003,1.01423E+304,7.78,42431.277,26.8,21.9,C,7.70,1.00,F
12,Single Wheel 10,11200.000,7.6,303,8.69,1.05210E+003,1.01423E+304,11.95,37627.761,25.4,21.9,C,7.70,1.00,F
13,Single Wheel 2.5,2500.000,1.2,402,3.19,8.55664E+002,1.01423E+304,4.48,59748.375,28.8,21.9,C,7.70,1.00,F
14,Single Wheel 5,5732.000,3.6,628,6.11,1.65003E+003,1.01423E+304,8.05,42431.278,26.8,21.9,C,7.70,1.00,F
15,Single Wheel 2.4,2440.000,1.2,746,3.35,1.56882E+003,1.01423E+304,4.43,59748.375,28.8,21.9,C,7.70,1.00,F
16,Single Wheel 2.2,2200.000,1.1,3931,3.62,7.85194E+003,1.01423E+304,4.20,59748.375,28.8,21.9,C,7.70,1.00,F

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This file name = PCN Results Flexible 5-22-2018 16;46;32.txt
Library file name = C:\Program Files (x86)\COMFAA 30\MYF Traffic_1_28L Recal.Ext
Units = English

Evaluation pavement type is flexible and design procedure is CBR.
Alpha Values are those approved by the ICAO in 2007.

CBR = 7.40 (Subgrade Category is C(6))
Evaluation pavement thickness = 24.80 in
Pass to Traffic Cycle (PtoTC) Ratio = 0.85 (non-standard)
Maximum number of wheels per gear = 2
Maximum number of gears per aircraft = 2

No aircraft have 4 or more wheels per gear. The FAA recommends a reference section assuming 3 inches of HMA and 6 inches of crushed aggregate for equivalent thickness calculations.

Results Table 1. Input Traffic Data

No.	Aircraft Name	Gross Weight	Percent Gross Wt	Tire Press	Annual Deps	20-yr Coverages	6D Thick
1	Single Wheel 5	5,950	100.00	45.0	610	1,394	6.74
2	Learjet-35A/65A	18,000	95.00	171.0	255	499	6.77
3	Citation-V	16,300	95.00	130.0	63	97	6.45
4	Citation-V	16,630	95.00	130.0	63	98	6.52
5	Citation-550B	14,800	95.00	130.0	306	448	7.53
6	Citation-525	11,850	95.00	98.0	542	818	7.07
7	Single Wheel 2	2,450	100.00	30.0	5,062	9,106	4.00
8	Bonanza-F-36	3,650	95.00	40.0	26,167	34,341	4.19
9	Baron-E-55	5,100	95.00	56.0	9,861	12,929	5.18
10	Single Wheel 12.5	12,500	95.00	50.0	1,561	3,382	7.16
11	EC130 Eurocopter	5,351	100.00	45.0	502	1,088	6.25
12	C-130	165,000	95.00	105.0	502	3,821	22.00
13	Single Wheel 10	11,200	100.00	50.0	303	898	8.72
14	Single Wheel 2.5	2,500	100.00	30.0	402	730	3.25
15	Single Wheel 5	5,732	100.00	45.0	628	1,409	6.62
16	Single Wheel 2.4	2,440	100.00	30.0	746	1,339	3.41

17	Single Wheel 2.2	2,200	100.00	30.0	3,931	6,703	3.70

Results Table 2. PCN Values

No.	Aircraft Name	Critical Aircraft Total Equiv. Covs.	Thickness for Total Equiv. Covs.	Maximum Allowable Gross Weight	ACN Thick at Max. Allowable Gross Weight	CDF	PCN on C(6)
1	Single Wheel 5	>5,000,000	14.94	16,393	14.67	0.0000	10.4
2	Learjet-35A/65A	>5,000,000	14.68	46,701	17.88	0.0000	15.4
3	Citation-V	>5,000,000	20.85	23,055	13.95	0.0000	9.4
4	Citation-V	>5,000,000	21.06	23,055	13.95	0.0000	9.4
5	Citation-550B	>5,000,000	19.87	23,055	13.95	0.0000	9.4
6	Citation-525	>5,000,000	17.46	23,895	13.93	0.0000	9.4
7	Single Wheel 2	>5,000,000	8.03	23,342	15.28	0.0000	11.2
8	Bonanza-F-36	>5,000,000	7.74	37,493	14.88	0.0000	10.7
9	Baron-E-55	>5,000,000	10.18	30,295	14.64	0.0000	10.3
10	Single Wheel 12.5	>5,000,000	15.55	31,814	14.55	0.0000	10.2
11	EC130 Eurocopter	>5,000,000	14.17	16,393	14.67	0.0000	10.4
12	C-130	3,821	22.00	203,031	30.35	0.1500	44.4
13	Single Wheel 10	>5,000,000	21.35	15,112	14.55	0.0000	10.2
14	Single Wheel 2.5	>5,000,000	8.12	23,342	15.28	0.0000	11.2
15	Single Wheel 5	>5,000,000	14.66	16,393	14.67	0.0000	10.4
16	Single Wheel 2.4	>5,000,000	8.02	23,342	15.28	0.0000	11.2
17	Single Wheel 2.2	>5,000,000	7.61	23,342	15.28	0.0000	11.2
					Total CDF =	0.1500	

Results Table 3. Flexible ACN at Indicated Gross Weight and Strength

No.	Aircraft Name	Gross Weight	% GW on Main Gear	Tire Pressure	ACN Thick	ACN on C(6)
1	Single Wheel 5	5,950	100.00	45.0	8.84	3.8
2	Learjet-35A/65A	18,000	95.00	171.0	10.15	5.0
3	Citation-V	16,300	95.00	130.0	11.73	6.6
4	Citation-V	16,630	95.00	130.0	11.85	6.8
5	Citation-550B	14,800	95.00	130.0	11.18	6.0
6	Citation-525	11,850	95.00	98.0	9.81	4.6

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7	Single Wheel 2	2,450	100.00	30.0	4.95	1.2
8	Bonanza-F-36	3,650	95.00	40.0	4.64	1.0
9	Baron-E-55	5,100	95.00	56.0	6.01	1.7
10	Single Wheel 12.5	12,500	95.00	50.0	9.12	4.0
11	EC130 Eurocopter	5,351	100.00	45.0	8.38	3.4
12	C-130	165,000	95.00	105.0	26.87	34.8
13	Single Wheel 10	11,200	100.00	50.0	12.52	7.6
14	Single Wheel 2.5	2,500	100.00	30.0	5.00	1.2
15	Single Wheel 5	5,732	100.00	45.0	8.67	3.6
16	Single Wheel 2.4	2,440	100.00	30.0	4.94	1.2
17	Single Wheel 2.2	2,200	100.00	30.0	4.69	1.1

Results Table 4. Summary Output for Copy and Paste Into the Support Spread Sheet

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Num,Plane,GWin,ACNin,ADout,6Dt,COV20yr,COVtoF,CDFt,GWcdf,PCNcdf,EVALt,SUBcode,KorCBR,PtoTC,FlexOrRig
1,Single Wheel 5,5950.000,3.8,521,6.74,1.39379E+003,1.01423E+304,14.94,16393.117,10.4,24.8,C,7.40,0.85,F
2,Learjet-35A/65A,18000.000,5.0,218,6.77,4.98876E+002,1.01423E+304,14.68,46700.675,15.4,24.8,C,7.40,0.85,F
3,Citation-V,16300.000,6.6,54,6.45,9.68616E+001,1.01423E+304,20.85,23055.013,9.4,24.8,C,7.40,0.85,F
4,Citation-V,16630.000,6.8,54,6.52,9.78329E+001,1.01423E+304,21.06,23055.012,9.4,24.8,C,7.40,0.85,F
5,Citation-550B,14800.000,6.0,261,7.53,4.48389E+002,3.75664E+172,19.87,23055.019,9.4,24.8,C,7.40,0.85,F
6,Citation-525,11850.000,4.6,463,7.07,8.18403E+002,1.01423E+304,17.46,23894.663,9.4,24.8,C,7.40,0.85,F
7,Single Wheel 2,2450.000,1.2,4321,4.00,9.10633E+003,1.01423E+304,8.03,23342.244,11.2,24.8,C,7.40,0.85,F
8,Bonanza-F-36,3650.000,1.0,22339,4.19,3.43408E+004,1.01423E+304,7.74,37492.610,10.7,24.8,C,7.40,0.85,F
9,Baron-E-55,5100.000,1.7,8418,5.18,1.29287E+004,1.01423E+304,10.18,30295.455,10.3,24.8,C,7.40,0.85,F
10,Single Wheel
12.5,12500.000,4.0,1333,7.16,3.38177E+003,1.01423E+304,15.55,31814.243,10.2,24.8,C,7.40,0.85,F
11,EC130 Eurocopter,5351.000,3.4,429,6.25,1.08827E+003,1.01423E+304,14.17,16393.194,10.4,24.8,C,7.40,0.85,F
12,C-130,165000.000,34.8,429,22.00,3.82128E+003,2.54713E+004,22.00,203031.032,44.4,24.8,C,7.40,0.85,F
13,Single Wheel 10,11200.000,7.6,259,8.72,8.98178E+002,1.01423E+304,21.35,15111.787,10.2,24.8,C,7.40,0.85,F
14,Single Wheel 2.5,2500.000,1.2,343,3.25,7.30480E+002,1.01423E+304,8.12,23342.244,11.2,24.8,C,7.40,0.85,F
15,Single Wheel 5,5732.000,3.6,536,6.62,1.40863E+003,1.01423E+304,14.66,16393.078,10.4,24.8,C,7.40,0.85,F
16,Single Wheel 2.4,2440.000,1.2,637,3.41,1.33930E+003,1.01423E+304,8.02,23342.244,11.2,24.8,C,7.40,0.85,F
17,Single Wheel 2.2,2200.000,1.1,3356,3.70,6.70320E+003,1.01423E+304,7.61,23342.240,11.2,24.8,C,7.40,0.85,F
```

MYF_28L_CDF 00000

This file name = PCN Results Flexible 5-22-2018 13;43;38.txt
Library file name = C:\Program Files (x86)\COMFAA 30\MYF Traffic_1_28L Recal_b.Ext
Units = English

Evaluation pavement type is flexible and design procedure is CBR.
Alpha Values are those approved by the ICAO in 2007.

CBR = 7.40 (Subgrade Category is C(6))
Evaluation pavement thickness = 24.80 in
Pass to Traffic Cycle (PtoTC) Ratio = 1.00
Maximum number of wheels per gear = 2
Maximum number of gears per aircraft = 2

No aircraft have 4 or more wheels per gear. The FAA recommends a reference section assuming 3 inches of HMA and 6 inches of crushed aggregate for equivalent thickness calculations.

Results Table 1. Input Traffic Data

No.	Aircraft Name	Gross Weight	Percent Gross Wt	Tire Press	Annual Deps	20-yr Coverages	6D Thick
1	Single Wheel 5	5,950	100.00	45.0	610	1,633	6.84
2	Learjet-35A/65A	18,000	95.00	171.0	255	584	6.89
3	Citation-V	16,300	95.00	130.0	63	113	6.60
4	Citation-V	16,630	95.00	130.0	63	115	6.68
5	Citation-550B	14,800	95.00	130.0	306	525	7.67
6	Citation-525	11,850	95.00	98.0	542	959	7.18
7	Single Wheel 2	2,450	100.00	30.0	5,062	10,667	4.04
8	Bonanza-F-36	3,650	95.00	40.0	26,167	40,226	4.23
9	Baron-E-55	5,100	95.00	56.0	9,861	15,144	5.23
10	Single Wheel 12.5	12,500	95.00	50.0	1,561	3,961	7.25
11	EC130 Eurocopter	5,351	100.00	45.0	502	1,275	6.34
12	Single Wheel 10	11,200	100.00	50.0	303	1,052	8.86
13	Single Wheel 2.5	2,500	100.00	30.0	402	856	3.30
14	Single Wheel 5	5,732	100.00	45.0	628	1,650	6.72
15	Single Wheel 2.4	2,440	100.00	30.0	746	1,569	3.46
16	Single Wheel 2.2	2,200	100.00	30.0	3,931	7,852	3.75

Results Table 2. PCN Values

No.	Aircraft Name	Critical Aircraft Total Equiv. Covs.	Thickness for Total Equiv. Covs.	Maximum Allowable Gross Weight	ACN Thick at Max. Allowable Gross Weight	CDF	PCN on C(6)
1	Single Wheel 5	>5,000,000	14.94	16,393	14.67	0.0000	10.4
2	Learjet-35A/65A	>5,000,000	14.68	46,701	17.88	0.0000	15.4
3	Citation-V	113	6.60	229,821	44.06	0.0000	93.6
4	Citation-V	>5,000,000	21.06	23,055	13.95	0.0000	9.4
5	Citation-550B	>5,000,000	19.87	23,055	13.95	0.0000	9.4
6	Citation-525	>5,000,000	17.46	23,895	13.93	0.0000	9.4
7	Single Wheel 2	>5,000,000	8.03	23,342	15.28	0.0000	11.2
8	Bonanza-F-36	>5,000,000	7.74	37,493	14.88	0.0000	10.7
9	Baron-E-55	>5,000,000	10.18	30,296	14.64	0.0000	10.3
10	Single Wheel 12.5	>5,000,000	15.55	31,814	14.55	0.0000	10.2
11	EC130 Eurocopter	>5,000,000	14.17	16,393	14.67	0.0000	10.4
12	Single Wheel 10	>5,000,000	21.35	15,112	14.55	0.0000	10.2
13	Single Wheel 2.5	>5,000,000	8.12	23,342	15.28	0.0000	11.2
14	Single Wheel 5	>5,000,000	14.66	16,393	14.67	0.0000	10.4
15	Single Wheel 2.4	>5,000,000	8.02	23,342	15.28	0.0000	11.2
16	Single Wheel 2.2	>5,000,000	7.61	23,342	15.28	0.0000	11.2
					Total CDF =	0.0000	

When computing the numbers of coverages to failure, the coverages for none of the aircraft converged at a pavement thickness greater than 99 percent of the evaluation thickness. This means that the life of the pavement is unlimited and the pavement is very strong in relation to the aircraft loading. The relative aircraft load evaluations are also unreliable. Consider reviewing the procedures used to determine the evaluation thickness and the strength of the support. The thicknesses for unlimited operations of each of the aircraft are as follows.

Results Table 2a. Thicknesses for Unlimited Operations

Single Wheel 5	14.94
Learjet-35A/65A	14.68

Citation-V	20.85
Citation-V	21.06
Citation-550B	19.87
Citation-525	17.46
Single Wheel 2	8.03
Bonanza-F-36	7.74
Baron-E-55	10.18
Single Wheel 12.5	15.55
EC130 Eurocopter	14.17
Single Wheel 10	21.35
Single Wheel 2.5	8.12
Single Wheel 5	14.66
Single Wheel 2.4	8.02
Single Wheel 2.2	7.61

Results Table 3. Flexible ACN at Indicated Gross Weight and Strength

No.	Aircraft Name	Gross Weight	% GW on Main Gear	Tire Pressure	ACN Thick	ACN on C(6)
1	Single Wheel 5	5,950	100.00	45.0	8.84	3.8
2	Learjet-35A/65A	18,000	95.00	171.0	10.15	5.0
3	Citation-V	16,300	95.00	130.0	11.73	6.6
4	Citation-V	16,630	95.00	130.0	11.85	6.8
5	Citation-550B	14,800	95.00	130.0	11.18	6.0
6	Citation-525	11,850	95.00	98.0	9.81	4.6
7	Single Wheel 2	2,450	100.00	30.0	4.95	1.2
8	Bonanza-F-36	3,650	95.00	40.0	4.64	1.0
9	Baron-E-55	5,100	95.00	56.0	6.01	1.7
10	Single Wheel 12.5	12,500	95.00	50.0	9.12	4.0
11	EC130 Eurocopter	5,351	100.00	45.0	8.38	3.4
12	Single Wheel 10	11,200	100.00	50.0	12.52	7.6
13	Single Wheel 2.5	2,500	100.00	30.0	5.00	1.2
14	Single Wheel 5	5,732	100.00	45.0	8.67	3.6
15	Single Wheel 2.4	2,440	100.00	30.0	4.94	1.2
16	Single Wheel 2.2	2,200	100.00	30.0	4.69	1.1

Results Table 4. Summary Output for Copy and Paste Into the Support Spread Sheet

Num,Plane,GWin,ACNin,ADout,6Dt,COV20yr,COVtoF,CDFt,GWcdf,PCNcdf,EVALt,SUBcode,KorCBR,PtoTC,FlexOrRig
1,Single Wheel 5,5950.000,3.8,610,6.84,1.63265E+003,1.01423E+304,14.94,16393.156,10.4,24.8,C,7.40,1.00,F
2,Learjet-35A/65A,18000.000,5.0,255,6.89,5.84370E+002,1.01423E+304,14.68,46700.675,15.4,24.8,C,7.40,1.00,F
3,Citation-V,16300.000,6.6,63,6.60,1.13461E+002,1.80058E+221,6.60,229820.904,93.6,24.8,C,7.40,1.00,F
4,Citation-V,16630.000,6.8,63,6.68,1.14599E+002,1.01423E+304,21.06,23055.067,9.4,24.8,C,7.40,1.00,F
5,Citation-550B,14800.000,6.0,306,7.67,5.25230E+002,1.01423E+304,19.87,23055.075,9.4,24.8,C,7.40,1.00,F
6,Citation-525,11850.000,4.6,542,7.18,9.58654E+002,1.01423E+304,17.46,23894.721,9.4,24.8,C,7.40,1.00,F
7,Single Wheel 2,2450.000,1.2,5062,4.04,1.06669E+004,1.01423E+304,8.03,23342.308,11.2,24.8,C,7.40,1.00,F
8,Bonanza-F-36,3650.000,1.0,26167,4.23,4.02259E+004,1.01423E+304,7.74,37492.700,10.7,24.8,C,7.40,1.00,F
9,Baron-E-55,5100.000,1.7,9861,5.23,1.51443E+004,1.01423E+304,10.18,30295.527,10.3,24.8,C,7.40,1.00,F
10,Single Wheel
12.5,12500.000,4.0,1561,7.25,3.96131E+003,1.01423E+304,15.55,31814.321,10.2,24.8,C,7.40,1.00,F
11,EC130 Eurocopter,5351.000,3.4,502,6.34,1.27477E+003,1.01423E+304,14.17,16393.233,10.4,24.8,C,7.40,1.00,F
12,Single Wheel 10,11200.000,7.6,303,8.86,1.05210E+003,1.01423E+304,21.35,15111.824,10.2,24.8,C,7.40,1.00,F
13,Single Wheel 2.5,2500.000,1.2,402,3.30,8.55664E+002,1.01423E+304,8.12,23342.309,11.2,24.8,C,7.40,1.00,F
14,Single Wheel 5,5732.000,3.6,628,6.72,1.65003E+003,1.01423E+304,14.66,16393.117,10.4,24.8,C,7.40,1.00,F
15,Single Wheel 2.4,2440.000,1.2,746,3.46,1.56882E+003,1.01423E+304,8.02,23342.308,11.2,24.8,C,7.40,1.00,F
16,Single Wheel 2.2,2200.000,1.1,3931,3.75,7.85194E+003,1.01423E+304,7.61,23342.304,11.2,24.8,C,7.40,1.00,F

MYF_23_CDF 01506_PCN 37

This file name = PCN Results Flexible 5-22-2018 17;44;28.txt
Library file name = C:\Program Files (x86)\COMFAA 30\MYF Traffic_1_23 Recal.Ext
Units = English

Evaluation pavement type is flexible and design procedure is CBR.
Alpha Values are those approved by the ICAO in 2007.

CBR = 9.00 (Subgrade Category is B(10))
Evaluation pavement thickness = 25.70 in
Pass to Traffic Cycle (PtoTC) Ratio = 3.70 (non-standard)
Maximum number of wheels per gear = 2
Maximum number of gears per aircraft = 2

No aircraft have 4 or more wheels per gear. The FAA recommends a reference section assuming 3 inches of HMA and 6 inches of crushed aggregate for equivalent thickness calculations.

Results Table 1. Input Traffic Data

No.	Aircraft Name	Gross Weight	Percent Gross Wt	Tire Press	Annual Deps	20-yr Coverages	6D Thick
1	Single Wheel 5	5,950	100.00	45.0	6,100	60,408	7.04
2	Learjet-35A/65A	18,000	95.00	171.0	2,550	21,622	8.10
3	Citation-V	16,300	95.00	130.0	630	4,198	8.77
4	Citation-V	16,630	95.00	130.0	630	4,240	8.87
5	Citation-550B	14,800	95.00	130.0	3,060	19,433	9.32
6	Citation-525	11,850	95.00	98.0	5,420	35,470	8.35
7	Single Wheel 2	2,450	100.00	30.0	50,620	394,675	4.08
8	Bonanza-F-36	3,650	95.00	40.0	261,670	1,488,358	4.16
9	Baron-E-55	5,100	95.00	56.0	98,610	560,338	5.44
10	Single Wheel 12.5	12,500	95.00	50.0	15,610	146,568	7.64
11	EC130 Eurocopter	5,351	100.00	45.0	5,020	47,166	6.59
12	C-130	165,000	95.00	105.0	5,020	165,617	24.01
13	Single Wheel 10	11,200	100.00	50.0	3,030	38,928	9.77
14	Single Wheel 2.5	2,500	100.00	30.0	4,020	31,660	3.62
15	Single Wheel 5	5,732	100.00	45.0	6,280	61,051	6.91
16	Single Wheel 2.4	2,440	100.00	30.0	7,460	58,046	3.71

17	Single Wheel 2.2	2,200	100.00	30.0	39,310	290,522	3.82

Results Table 2. PCN Values

No.	Aircraft Name	Critical Aircraft Total Equiv. Covs.	Thickness for Total Equiv. Covs.	Maximum Allowable Gross Weight	ACN Thick at Max. Allowable Gross Weight	CDF	PCN on B(10)
1	Single Wheel 5	>5,000,000	12.60	24,773	11.58	0.0000	11.5
2	Learjet-35A/65A	>5,000,000	12.97	61,505	15.42	0.0000	20.4
3	Citation-V	>5,000,000	18.72	30,708	12.03	0.0000	12.4
4	Citation-V	>5,000,000	18.91	30,708	12.03	0.0000	12.4
5	Citation-550B	>5,000,000	17.84	30,708	12.03	0.0000	12.4
6	Citation-525	>5,000,000	15.42	32,935	11.91	0.0000	12.1
7	Single Wheel 2	>5,000,000	6.66	36,484	11.36	0.0000	11.0
8	Bonanza-F-36	>5,000,000	6.42	58,441	11.55	0.0000	11.4
9	Baron-E-55	>5,000,000	8.74	44,137	11.69	0.0000	11.7
10	Single Wheel 12.5	>5,000,000	13.07	48,358	11.74	0.0000	11.8
11	EC130 Eurocopter	>5,000,000	11.94	24,773	11.58	0.0000	11.5
12	C-130	165,617	24.01	185,651	20.74	0.1506	36.8
13	Single Wheel 10	>5,000,000	17.95	22,970	11.74	0.0000	11.8
14	Single Wheel 2.5	>5,000,000	6.73	36,484	11.36	0.0000	11.0
15	Single Wheel 5	>5,000,000	12.36	24,773	11.58	0.0000	11.5
16	Single Wheel 2.4	>5,000,000	6.65	36,484	11.36	0.0000	11.0
17	Single Wheel 2.2	>5,000,000	6.31	36,484	11.36	0.0000	11.0
					Total CDF =	0.1506	

Results Table 3. Flexible ACN at Indicated Gross Weight and Strength

No.	Aircraft Name	Gross Weight	% GW on Main Gear	Tire Pressure	ACN Thick	ACN on B(10)
1	Single Wheel 5	5,950	100.00	45.0	5.68	2.8
2	Learjet-35A/65A	18,000	95.00	171.0	7.19	4.4
3	Citation-V	16,300	95.00	130.0	8.77	6.6
4	Citation-V	16,630	95.00	130.0	8.86	6.7
5	Citation-550B	14,800	95.00	130.0	8.35	6.0
6	Citation-525	11,850	95.00	98.0	7.14	4.4

7	Single Wheel 2	2,450	100.00	30.0	2.94	0.7
8	Bonanza-F-36	3,650	95.00	40.0	2.89	0.7
9	Baron-E-55	5,100	95.00	56.0	3.97	1.4
10	Single Wheel 12.5	12,500	95.00	50.0	5.97	3.0
11	EC130 Eurocopter	5,351	100.00	45.0	5.38	2.5
12	C-130	165,000	95.00	105.0	19.44	32.3
13	Single Wheel 10	11,200	100.00	50.0	8.20	5.8
14	Single Wheel 2.5	2,500	100.00	30.0	2.97	0.8
15	Single Wheel 5	5,732	100.00	45.0	5.57	2.7
16	Single Wheel 2.4	2,440	100.00	30.0	2.94	0.7
17	Single Wheel 2.2	2,200	100.00	30.0	2.79	0.7

Results Table 4. Summary Output for Copy and Paste Into the Support Spread Sheet

Num,Plane,GWin,ACNin,ADout,6Dt,COV20yr,COVtoF,CDFt,GWcdf,PCNcdf,EVALt,SUBcode,KorCBR,PtoTC,FlexOrRig
1,Single Wheel 5,5950.000,2.8,22570,7.04,6.04079E+004,1.01423E+304,12.60,24773.132,11.5,25.7,B,9.00,3.70,F
2,Learjet-35A/65A,18000.000,4.4,9435,8.10,2.16217E+004,1.01423E+304,12.97,61505.172,20.4,25.7,B,9.00,3.70,F
3,Citation-V,16300.000,6.6,2331,8.77,4.19805E+003,1.01423E+304,18.72,30708.311,12.4,25.7,B,9.00,3.70,F
4,Citation-V,16630.000,6.7,2331,8.87,4.24015E+003,1.01423E+304,18.91,30708.309,12.4,25.7,B,9.00,3.70,F
5,Citation-550B,14800.000,6.0,11322,9.32,1.94335E+004,1.01423E+304,17.84,30708.316,12.4,25.7,B,9.00,3.70,F
6,Citation-525,11850.000,4.4,20054,8.35,3.54702E+004,1.01423E+304,15.42,32934.826,12.1,25.7,B,9.00,3.70,F
7,Single Wheel 2,2450.000,0.7,187294,4.08,3.94675E+005,1.01423E+304,6.66,36483.726,11.0,25.7,B,9.00,3.70,F
8,Bonanza-F-36,3650.000,0.7,968179,4.16,1.48836E+006,1.01423E+304,6.42,58440.642,11.4,25.7,B,9.00,3.70,F
9,Baron-E-55,5100.000,1.4,364857,5.44,5.60338E+005,1.01423E+304,8.74,44137.474,11.7,25.7,B,9.00,3.70,F
10,Single Wheel
12.5,12500.000,3.0,57757,7.64,1.46568E+005,1.01423E+304,13.07,48357.646,11.8,25.7,B,9.00,3.70,F
11,EC130
Eurocopter,5351.000,2.5,18574,6.59,4.71664E+004,1.01423E+304,11.94,24773.132,11.5,25.7,B,9.00,3.70,F
12,C-130,165000.000,32.3,18574,24.01,1.65617E+005,1.09967E+006,24.01,185650.538,36.8,25.7,B,9.00,3.70,F
13,Single Wheel
10,11200.000,5.8,11211,9.77,3.89277E+004,1.01423E+304,17.95,22969.914,11.8,25.7,B,9.00,3.70,F
14,Single Wheel 2.5,2500.000,0.8,14874,3.62,3.16596E+004,1.01423E+304,6.73,36483.732,11.0,25.7,B,9.00,3.70,F
15,Single Wheel 5,5732.000,2.7,23236,6.91,6.10511E+004,1.01423E+304,12.36,24773.132,11.5,25.7,B,9.00,3.70,F
16,Single Wheel 2.4,2440.000,0.7,27602,3.71,5.80462E+004,1.01423E+304,6.65,36483.725,11.0,25.7,B,9.00,3.70,F
17,Single Wheel

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2.2,2200.000,0.7,145447,3.82,2.90522E+005,1.01423E+304,6.31,36483.690,11.0,25.7,B,9.00,3.70,F

This file name = PCN Results Flexible 5-22-2018 17;28;46.txt
Library file name = C:\Program Files (x86)\COMFAA 30\MYF Traffic_1_23 Recal_b.Ext
Units = English

Evaluation pavement type is flexible and design procedure is CBR.
Alpha Values are those approved by the ICAO in 2007.

CBR = 9.00 (Subgrade Category is B(10))
Evaluation pavement thickness = 25.70 in
Pass to Traffic Cycle (PtoTC) Ratio = 1.00
Maximum number of wheels per gear = 2
Maximum number of gears per aircraft = 2

No aircraft have 4 or more wheels per gear. The FAA recommends a reference section assuming 3 inches of HMA and 6 inches of crushed aggregate for equivalent thickness calculations.

Results Table 1. Input Traffic Data

No.	Aircraft Name	Gross Weight	Percent Gross Wt	Tire Press	Annual Deps	20-yr Coverages	6D Thick
1	Single Wheel 5	5,950	100.00	45.0	610	1,633	5.45
2	Learjet-35A/65A	18,000	95.00	171.0	255	584	6.03
3	Citation-V	16,300	95.00	130.0	63	113	5.93
4	Citation-V	16,630	95.00	130.0	63	115	6.00
5	Citation-550B	14,800	95.00	130.0	306	525	6.88
6	Citation-525	11,850	95.00	98.0	542	959	6.34
7	Single Wheel 2	2,450	100.00	30.0	5,062	10,667	3.35
8	Bonanza-F-36	3,650	95.00	40.0	26,167	40,226	3.51
9	Baron-E-55	5,100	95.00	56.0	9,861	15,144	4.68
10	Single Wheel 12.5	12,500	95.00	50.0	1,561	3,961	6.09
11	EC130 Eurocopter	5,351	100.00	45.0	502	1,275	5.05
12	Single Wheel 10	11,200	100.00	50.0	303	1,052	7.44
13	Single Wheel 2.5	2,500	100.00	30.0	402	856	2.74
14	Single Wheel 5	5,732	100.00	45.0	628	1,650	5.36
15	Single Wheel 2.4	2,440	100.00	30.0	746	1,569	2.87
16	Single Wheel 2.2	2,200	100.00	30.0	3,931	7,852	3.10

Results Table 2. PCN Values

No.	Aircraft Name	Critical Aircraft Total Equiv. Covs.	Thickness for Total Equiv. Covs.	Maximum Allowable Gross Weight	ACN Thick at Max. Allowable Gross Weight	CDF	PCN on B(10)
1	Single Wheel 5	>5,000,000	10.19	37,826	14.31	0.0000	17.5
2	Learjet-35A/65A	146,636	8.98	110,377	21.27	0.0000	38.8
3	Citation-V	>5,000,000	18.72	30,708	12.03	0.0000	12.4
4	Citation-V	>5,000,000	18.91	30,708	12.03	0.0000	12.4
5	Citation-550B	>5,000,000	17.84	30,708	12.03	0.0000	12.4
6	Citation-525	>5,000,000	15.42	32,935	11.91	0.0000	12.1
7	Single Wheel 2	>5,000,000	6.66	36,484	11.36	0.0000	11.0
8	Bonanza-F-36	>5,000,000	6.42	58,441	11.55	0.0000	11.4
9	Baron-E-55	>5,000,000	8.74	44,138	11.69	0.0000	11.7
10	Single Wheel 12.5	3,977	6.09	222,428	25.18	0.0000	54.3
11	EC130 Eurocopter	>5,000,000	11.94	24,775	11.58	0.0000	11.5
12	Single Wheel 10	>5,000,000	17.95	22,970	11.74	0.0000	11.8
13	Single Wheel 2.5	>5,000,000	6.73	36,484	11.36	0.0000	11.0
14	Single Wheel 5	>5,000,000	12.30	25,040	11.64	0.0000	11.6
15	Single Wheel 2.4	>5,000,000	6.65	36,484	11.36	0.0000	11.0
16	Single Wheel 2.2	>5,000,000	6.31	36,484	11.36	0.0000	11.0
					Total CDF =	0.0000	

When computing the numbers of coverages to failure, the coverages for none of the aircraft converged at a pavement thickness greater than 99 percent of the evaluation thickness. This means that the life of the pavement is unlimited and the pavement is very strong in relation to the aircraft loading. The relative aircraft load evaluations are also unreliable. Consider reviewing the procedures used to determine the evaluation thickness and the strength of the support. The thicknesses for unlimited operations of each of the aircraft are as follows.

Results Table 2a. Thicknesses for Unlimited Operations

Single Wheel 5	12.60
Learjet-35A/65A	12.97

Citation-V	18.72
Citation-V	18.91
Citation-550B	17.84
Citation-525	15.42
Single Wheel 2	6.66
Bonanza-F-36	6.42
Baron-E-55	8.74
Single Wheel 12.5	13.07
EC130 Eurocopter	11.94
Single Wheel 10	17.95
Single Wheel 2.5	6.73
Single Wheel 5	12.36
Single Wheel 2.4	6.65
Single Wheel 2.2	6.31

Results Table 3. Flexible ACN at Indicated Gross Weight and Strength

No.	Aircraft Name	Gross Weight	% GW on Main Gear	Tire Pressure	ACN Thick	ACN on B(10)
1	Single Wheel 5	5,950	100.00	45.0	5.68	2.8
2	Learjet-35A/65A	18,000	95.00	171.0	7.19	4.4
3	Citation-V	16,300	95.00	130.0	8.77	6.6
4	Citation-V	16,630	95.00	130.0	8.86	6.7
5	Citation-550B	14,800	95.00	130.0	8.35	6.0
6	Citation-525	11,850	95.00	98.0	7.14	4.4
7	Single Wheel 2	2,450	100.00	30.0	2.94	0.7
8	Bonanza-F-36	3,650	95.00	40.0	2.89	0.7
9	Baron-E-55	5,100	95.00	56.0	3.97	1.4
10	Single Wheel 12.5	12,500	95.00	50.0	5.97	3.0
11	EC130 Eurocopter	5,351	100.00	45.0	5.38	2.5
12	Single Wheel 10	11,200	100.00	50.0	8.20	5.8
13	Single Wheel 2.5	2,500	100.00	30.0	2.97	0.8
14	Single Wheel 5	5,732	100.00	45.0	5.57	2.7
15	Single Wheel 2.4	2,440	100.00	30.0	2.94	0.7
16	Single Wheel 2.2	2,200	100.00	30.0	2.79	0.7

Results Table 4. Summary Output for Copy and Paste Into the Support Spread Sheet

Num,Plane,GWin,ACNin,ADout,6Dt,COV20yr,COVtoF,CDFt,GWcdf,PCNcdf,EVALt,SUBcode,KorCBR,PtoTC,FlexOrRig
1,Single Wheel 5,5950.000,2.8,610,5.45,1.63265E+003,4.28865E+221,10.19,37825.903,17.5,25.7,B,9.00,1.00,F
2,Learjet-35A/65A,18000.000,4.4,255,6.03,5.84370E+002,6.11687E+216,8.98,110376.707,38.8,25.7,B,9.00,1.00,F
3,Citation-V,16300.000,6.6,63,5.93,1.13461E+002,1.01423E+304,18.72,30708.333,12.4,25.7,B,9.00,1.00,F
4,Citation-V,16630.000,6.7,63,6.00,1.14599E+002,1.01423E+304,18.91,30708.331,12.4,25.7,B,9.00,1.00,F
5,Citation-550B,14800.000,6.0,306,6.88,5.25230E+002,1.01423E+304,17.84,30708.338,12.4,25.7,B,9.00,1.00,F
6,Citation-525,11850.000,4.4,542,6.34,9.58654E+002,1.01423E+304,15.42,32934.851,12.1,25.7,B,9.00,1.00,F
7,Single Wheel 2,2450.000,0.7,5062,3.35,1.06669E+004,1.01423E+304,6.66,36483.752,11.0,25.7,B,9.00,1.00,F
8,Bonanza-F-36,3650.000,0.7,26167,3.51,4.02259E+004,1.01423E+304,6.42,58440.686,11.4,25.7,B,9.00,1.00,F
9,Baron-E-55,5100.000,1.4,9861,4.68,1.51443E+004,1.01423E+304,8.74,44137.505,11.7,25.7,B,9.00,1.00,F
10,Single Wheel
12.5,12500.000,3.0,1561,6.09,3.96131E+003,1.65906E+215,6.09,222427.545,54.3,25.7,B,9.00,1.00,F
11,EC130 Eurocopter,5351.000,2.5,502,5.05,1.27477E+003,6.06708E+276,11.94,24774.512,11.5,25.7,B,9.00,1.00,F
12,Single Wheel 10,11200.000,5.8,303,7.44,1.05210E+003,1.01423E+304,17.95,22969.930,11.8,25.7,B,9.00,1.00,F
13,Single Wheel 2.5,2500.000,0.8,402,2.74,8.55664E+002,1.01423E+304,6.73,36483.758,11.0,25.7,B,9.00,1.00,F
14,Single Wheel 5,5732.000,2.7,628,5.36,1.65003E+003,9.80329E+243,12.30,25039.761,11.6,25.7,B,9.00,1.00,F
15,Single Wheel 2.4,2440.000,0.7,746,2.87,1.56882E+003,1.01423E+304,6.65,36483.751,11.0,25.7,B,9.00,1.00,F
16,Single Wheel 2.2,2200.000,0.7,3931,3.10,7.85194E+003,1.01423E+304,6.31,36483.716,11.0,25.7,B,9.00,1.00,F

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Appendix I

Resources with Negligible Impact or Not Present

Appendix I - Resources with negligible impact or not present

A.1 Coastal Resources

Coastal resources are natural resources that occur within coastal waters and their adjacent shore. These areas can include islands, transitional and intertidal areas, salt marshes, wetlands, floodplains, estuaries, beaches, dunes, barrier islands, and coral reefs. This definition extends to fish and wildlife and their respective habitats within these areas.

Regulatory Setting

Coastal Barrier Resources Act

The Coastal Barrier Resources Act (CBRA) of 1982 and subsequent amendments designated relatively undeveloped coastal barriers along the Atlantic, Gulf of Mexico, Great Lakes, U.S. Virgin Island, and Puerto Rico coasts as part of the Coastal Barrier Resources System (CBRS). CBRA encourages the conservation of hurricane prone, biologically rich coastal barriers by restricting federal expenditures and financial assistance that encourage development, such as federal flood insurance. The CBRA does not prohibit or regulate development.

Coastal Zone Management Act

The Coastal Zone Management Act (CZMA) of 1972 encourages coastal states to develop and implement coastal zone management plans. The Act is administered by the National Oceanic and Atmospheric Administration (NOAA).

National Marine Sanctuaries Act

The National Marine Sanctuaries Act (NMSA) authorizes the designation and protection of areas of the marine environment with special national significance due to their conservation, recreational, ecological, historical, scientific, cultural, archeological, educational or esthetic qualities as national marine sanctuaries.

Executive Order 13089 - Coral Reef Protection

President Clinton issued Executive Order (E.O.) 13089 on Coral Reef Protection on June 11, 1998. The Order established the interagency U.S. Coral Reef Task Force, which is charged with developing and implementing a comprehensive program of research and mapping to inventory, monitor, and identify the major causes and consequences of degradation of coral reef ecosystems.

As per the text of EO 13089, federal agencies whose actions may affect U.S. coral reef ecosystems need to identify actions that may affect U.S. coral reef ecosystems; protect and enhance the conditions of such ecosystems; and ensure that any actions they authorize, fund, or carry out will not degrade the conditions of such ecosystems.

Executive Order 13547 – Stewardship of the Ocean, Our Coasts, and the Great Lakes

Based on the recommendations of the National Ocean Council, EO 13547 establishes a national policy to ensure the protection, maintenance, and restoration of the health of ocean, coastal, and Great Lakes ecosystems and resources. The EO aims to enhance the sustainability of ocean and coastal economies, preserve maritime heritage, support sustainable uses and access, provide for adaptive management to enhance understanding of and capacity to respond to climate change and ocean acidification, and coordinate with national security and foreign policy interests.

Existing Conditions

Coastal Barrier Resources System

The official Coastal Barrier Resources System (CBRS) maps indicate that all the designated Coastal Barrier Resources Systems are relatively undeveloped coastal barriers along the Atlantic, Gulf of Mexico, Great Lakes, U.S. Virgin Island, and Puerto Rico. There are no designated Coastal Barrier Resources System units on the California, or west coast of the USA.

State and San Diego Coastal Zone Boundaries

According to NOAA, California's coastal zone generally extends 1,000 yards inland from the mean high tide line. In significant coastal estuarine habitat and recreational areas it extends inland to the first major ridgeline or five miles from the mean high tide line, whichever is less. In developed urban areas, the boundary is generally less than 1,000 yards.

The San Diego County coastal zone extends south from the Orange County line to the Mexican border and the Tijuana River National Estuarine Research Reserve. The county shoreline, (including the shoreline of San Diego Bay and Mission Bay but excluding the lagoons), is approximately 177 miles long. The coastal zone area is approximately 87,888 acres (137 square miles). This area contains coastal resources including major state and local beaches, marine terraces, bluffs, coastal marshes, estuaries and lagoons, canyon-cut mesas, seaside beach communities, urban development, cultural resources, recreational harbors, and the Port of San Diego.

According to the City of San Diego's General Plan Conservation Element, the Airport is not within the Coastal Zone Boundary. At the closest point to the designated Coastal Zone Boundary, the Airport is approximately 3.8 miles inland.

National Marine Sanctuaries

The closest National Marine Sanctuary, as designated under the NMSA is the Channel Islands National Marine Sanctuary located 25 miles (22 nautical miles) off the coast of Santa Barbara. This is approximately 160 miles northwest of Montgomery-Gibbs Executive Airport.

Coral Reefs

According to United States Geological Survey (USGS), there are no coral reefs on the Pacific coast of California.

Summary and Recommendations

There are no Coastal Barrier Resources Systems or coral reefs on the Pacific Coast, and the Airport is outside the Coastal Zone, and a significant distance from any National Marine Sanctuary so there is no direct impact to Coastal Resources and no further assessment work is likely to be needed.

Under the CZMA, the FAA may, however, need to provide a negative determination to the California Coastal Commission, which is the FAA's written determination that an FAA action will have no reasonably foreseeable effect on any coastal use or resource. This is dependent whether the action was previously identified by the state agency responsible as an action that would result in reasonably foreseeable coastal effects or uses; or if it is similar to other activities that have required a consistency determination previously; or the agency has prepared a consistency assessment for the action and has later determined that it would not result in coastal effects.

A.2 Farmlands

Farmlands are agricultural areas considered important (these include all pasturelands, croplands, and forests (even if zoned for development) considered to be prime, unique, or of statewide or local Importance) and are protected by federal, state, and local regulations.

Regulatory Setting

Farmland Protection Policy Act (FPPA)

The FPPA intends to minimize the impact federal programs have on the unnecessary and irreversible conversion of farmland to nonagricultural uses. For the purpose of the FPPA, farmland includes prime farmland, unique farmland, and land of statewide or local importance. **Table 4.1** includes a description of the types of important farmland, as determined by the U.S. Department of Agriculture Natural Resources Conservation Service (NRCS).

Table 4.1 – Farmland Descriptors

Category	Description
Prime Farmland	Prime farmland has the best combination of physical and chemical features able to sustain long-term agricultural production. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.
Farmland of Statewide Importance	Farmland of statewide importance is similar to prime farmland but with minor shortcomings, such as greater slopes or less ability to store soil moisture. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.
Unique Farmland	Unique farmland consists of lesser quality soils used for the production of the state's leading agricultural crops. This land is usually irrigated, but may include non-irrigated orchards or vineyards as found in some climatic zones in California. Land must have been cropped at some time during the four years prior to the mapping date
Farmland of Local Importance	Land that meets all the characteristics of Prime and Statewide, with the exception of irrigation. Farmlands not covered by the above categories but are of significant economic importance to the county. They have a history of good production for locally adapted crops. The soils are grouped in types that are suited for truck crops (such as tomatoes, strawberries, cucumbers, potatoes, celery, squash, romaine lettuce, and cauliflower) and soils suited for orchard crops (avocados and citrus).
Grazing Land	Grazing land is land on which the existing vegetation is suited to the grazing of livestock.
Urban and Built-Up Land	Urban and built-up land is occupied by structures with a building density of at least 1 unit to 1.5 acres, or approximately 6 structures to a 10-acre parcel. Common examples include residential, industrial, commercial, institutional facilities, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, and water control structures.
Other Land	Other land is land not included in any other mapping category. Common examples include low density rural developments, brush, timber, wetland, and riparian areas not suitable for livestock grazing, confined livestock, poultry, or Aquaculture facilities, strip mines, borrow pits, and water bodies smaller than 40 acres. Vacant and nonagricultural land surrounded on all sides by urban development and greater than 40 acres is mapped as other land.
Water	Perennial water bodies with an extent of at least 40 acres.

Source: California Department of Conservation. Division of Land Resource Protection. 2016a. Farmland Mapping and Monitoring Program - San Diego County Important Farmland 2014 Sheet 1 of 2

Federal agencies (or federally funded projects) involved in proposed projects that may convert farmland, as defined in the FPPA, to nonagricultural uses need to initially complete Parts I and III of the USDA's Form AD-1006 - Farmland Conversion Impact Rating, and return to the NRCS for their

and evaluation and site assessment.

CEQ Memorandum on the Analysis of Impacts on Prime or Unique Agricultural lands in Implementing the National Environmental Policy Act
The 1980 CEQ memorandum on Analysis of Impacts on Prime or Unique Agricultural Lands in Implementing NEPA was developed in cooperation with the Department of Agriculture in order to ensure federal agencies considered impacts to prime and unique agricultural land, either directly or indirectly.

Existing Conditions
According to the California Important Farmland Finder and the California Department of Conservation, Division of Land Resource Protection, the land surrounding the runway is classed as 'Other Land'. The land outside the airport boundary and the apron, taxiways, ramps and vehicular parking areas are classed as 'Urban and Built Up Land'. As such, the airport and airport expansion would not be subject to FPPA requirements and further assessment.

USDA's CropScape - Cropland Data Layer identifies the land surrounding the runways as a mixture of Grass/Pasture; Shrubland; Developed/Open Space; Developed/High Intensity; and Developed/Medium Intensity.

Summary and Recommendations
The Airport would need no further assessment.

A.3 Natural resources and energy supply

Natural resources and energy supply assesses a project's consumption of natural resources (such as water, asphalt, aggregate, wood, etc.) and use of energy supplies (such as coal for electricity; natural gas for heating; and fuel for aircraft, commercial space launch vehicles, or other ground vehicles).

Regulatory Setting

Energy Independence and Security Act
This Act requires federal agencies to take actions to move the United States toward greater energy independence and security, to increase the production of clean renewable fuels, to protect consumers, to increase the efficiency of products, buildings, and vehicles, to promote research on and deploy greenhouse gas (GHG) capture and storage options, and to improve the energy performance of the federal government.

Energy Policy Act
The Energy Policy Act addresses energy production in the United States, including: (1) energy efficiency; (2) renewable energy; (3) oil and gas; (4) coal; (5) Tribal energy; (6) nuclear matters and security; (7) vehicles and motor fuels, including ethanol; (8) hydrogen; (9) electricity; (10) energy tax incentives; (11) hydropower and geothermal energy; and (12) climate change technology.

Executive Order 13514, Federal Leadership in Environmental, Energy, and Economic Performance
Establishes an integrated strategy towards sustainability in the federal government and to make reduction of GHG emissions a priority for federal agencies. Executive Order 13514 also requires agencies to coordinate with regional ecosystem, watershed, and environmental management programs.

Existing Conditions

Gas & Electricity

San Diego Gas & Electric (SDG&E) is the regulated public utility that provides natural gas and electricity/energy services to 3.6 million people through 1.4 million electric meters and 873,000 natural gas meters in San Diego and southern Orange counties. Their service area spans 4,100 square miles.

Water

According to the California Public Utilities Commission (CPUC), there are two regulated water utilities in San Diego County, California-American Water Company and the Live Oak Springs Water & Power Co. The California-American Water Company serves 615,000 people with the Live Oak Springs Water & Power Co serving approximately 95 residential and commercial water customers in east San Diego County.

The San Diego County Water Authority is a water wholesaler that purchases and imports water from various sources and sells the water to 24 retail member agencies in San Diego County, with up to 80 percent of the region's water being imported from the Colorado River and Northern California. The Metropolitan Water District of Southern California (MWD) is the Water Authority's largest supplier. By 2020, local water supplies are projected to meet 36 percent of the region's water demand.

Wastewater

The Metropolitan Sewerage sub-system treats wastewater from the City of San Diego and 15 other cities and districts (called Participating Agencies) from a 450-square-mile area with a population of over 2.2 million. The Municipal Wastewater Collection sub-system is responsible for the collection and conveyance of wastewater from residences and businesses in the City of San Diego, serving a 330 square mile area with a population of 1.2 million people.

Wastewater facilities include the Point Loma Wastewater Treatment Plant; the North City Water Reclamation Plant; the South Bay Water Reclamation Plant and the Metro Biosolids Center located adjacent to the Miramar landfill site.

Aggregates and Raw Materials

There are numerous local suppliers throughout San Diego County who supply asphalt, aggregate, and wood. Additionally, the Tenth Avenue Marine Terminal receives inbound dry bulk cargo such as soda ash, aggregate and cement for construction use.

Summary and Recommendations

The airport master plans could increase use of natural resources and energy, such as through creation of additional on-site business units and runway and apron enhancements. Additional businesses could increase demand for energy and utility services. However, it is likely that any such increase would be negligible and future projects would be subject to environmental review for their use of energy and utilities. It is therefore likely that use of natural resources and energy is not considered for further assessment as this topic would be considered at an individual project level.

Sources

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A.4 Socioeconomic Impacts, Environmental Justice, and Children's Environmental Health and Safety Risks

Socioeconomic impacts are experienced when the proposed action and alternative(s) might affect population, employment, housing, and public services.

Environmental justice ensures fair treatment of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.

Federal agencies are directed to identify and assess environmental health risks and safety risks that may disproportionately affect children.

Regulatory Setting

Uniform Relocation Assistance and Real Property Acquisition Policies Act
If acquisition of real property or displacement of persons is involved, 49 CFR part 24 (implementing the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970), as amended, must be met for federal projects and projects involving federal funding. Otherwise, all state and local laws, regulations, and ordinances concerning zoning, transportation, economic development, housing, etc. when planning, assessing, or implementing the proposed action or alternative(s) must be observed.

Executive Order 12898 - Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations
The purpose of Executive Order (EO) 12898 is to focus federal attention on the environmental and human health effects of federal actions on minority and low-income populations with the goal of achieving environmental protection for all communities, including addressing the disproportionately high and adverse human health or environmental effects on minority and low-income populations. Subsequent Orders at the federal level, including DOT Order 5610.2(a), *Actions to Address Environmental Justice in Minority Populations and Low-Income Populations* (DOT 2012), have reinforced the directives outlined in EO 12898.

The EO also makes clear that its provisions apply fully to programs potentially affecting American Indian tribes. EO No. 12898 requires a consideration of "environmental justice" for communities that are primarily composed of minority and/or low-income residents or those geographies that contain a "meaningfully greater" proportion of minority and/or low-income residents than the surrounding population (i.e., a regional concentration). Thus, geographies with minority and/or low-income populations that compose 50 percent or more of the total population are considered environmental justice populations.

EO 13045, Protection of Children from Environmental Health Risks and Safety Risks
EO 13045, requires federal agencies to identify disproportionately high and adverse impacts to children. Children may suffer disproportionately more environmental health and safety risks than adults because of various factors such as: children's neurological, digestive, immunological, and other bodily systems are still developing; children eat more food, drink more fluids, and breathe more air in proportion to their body weight than adults; children's behavior patterns may make them more susceptible to accidents because they are less able to protect themselves; and children's size and weight may diminish their protection from standard safety features.

Existing Conditions

Baseline demographics

The most reliable information is available within the 2010 U.S. Census. This data contains the most recent information on minority and low-income populations.

As per the Airport Land Use Compatibility Plan, the maximum airport-related noise level considered compatible for new residential development in the environs of the airports is 65 dB CNEL. To ascertain the demographics, the specific data (minority[1] and low-income[2] populations) associated with each census tract that touches and contains the 65 dB CNEL noise contour was analyzed. It should be noted that correlating census tract information with the 65 dB CNEL and higher noise contours at each of the airports may result in an overestimation of the number of people contained within that contour. This is because the census tracts that intersect with the 65 dB CNEL noise contour cover an area that is larger than the contour itself. It is the intersection of the Census Tracts with the 65 dB CNEL noise contour that yields the total population and the minority and low-income percentages set out in the following section.

The Airport falls within the San Diego-Carlsbad Metropolitan Statistical Area (MSA).

Acquisition and relocation

As the Airport is revising its master plan, there is no direct acquisition and relocation associated with the master plan process. For social impacts associated with acquisition and relocation, the existing community plans for Kearny Mesa were reviewed for land use compatibility, along with the respective ALUCP.

In addition to the land use recommendations as set out in the Kearny Mesa Community Plan, the ALUCP for the Airport sets out safety zones surrounding the runway and approaches which prohibit certain development. These are standardized. For example, in Safety Zone 1 no new residential developments are allowed; in Safety Zone 2 and 5, new residential development at a density greater than four dwelling units (DU)/gross acre is classed as incompatible and in Safety Zone 3, new residential development at a density greater than 16 DU/gross acre is classed as incompatible. There are also additional specifications for each of the Safety Zones 1 through 6 as set out in the ALUCP.

Montgomery-Gibbs Executive Airport

The Airport is situated within Kearny Mesa, with predominately single-family communities surrounding three sides; Clairemont Mesa and Linda Vista on the west, Serra Mesa on the south and Tierrasanta on the east. Marine Corps Air Station Miramar abuts Kearny Mesa on the north. Montgomery-Gibbs Executive Airport and its 65 dB CNEL is entirely within San Diego County Census Tract 85.11, a 5.86-square-mile area.

Overview of Minority (by Race and by Ethnicity) Population

Using 2010 U.S. Census and ArcGIS data, information contained within the census tract for the area within the 65 dB CNEL was tabulated. The total population within the project area is 2,633. Of this population, 39 percent (1,044 people) is identified as minority (by race).

Using 2010 U.S. Census and ArcGIS data information for the area as noted above; of this population, 16 percent (430 people) is identified as Hispanic or Latino.

1 US Census data states minorities are individuals who are a member of one of the following population groups: Black (not of Hispanic origin), Hispanic, Asian, American Indian or Native Alaskan.
2 Consistent with DOT Order 5610.2, "low-income persons" were defined as those whose "median household income is below the DHHS poverty guidelines.

Based on the census data, census tract 85.11 is not considered an environmental justice community as the total minority racial and ethnic population is not greater than 50 percent of the population.

Overview of Low-Income Population
Using 2010 U.S. Census and ArcGIS data, information contained within the census tract for the area described as the area was tabulated. The total number of households within the area is 1,218 and 1,361 housing units. Of these households, eight percent (213 people) of the population is identified as being in poverty. According to EPA's Environmental Justice Screening and Mapping Tool (Version 2016), 24 percent are classed as low-income.

Based on available data, the residents of census tract 85.11 are not considered a low-income or impoverished population as the percentage of persons living in poverty is less than 50 percent of the total census tract population.

Overview of Population by Age
According to 2010 census data, there were 360 people (195 male, 165 female) under 18 in census tract 85.11. This is 13.7 percent of the population of the census tract. There were also 265 people (119 male, 146 female) 65 and over. This is 10 percent of the population of the census tract. Due to the fact that only 23.7 percent of the population is under 18 or 65 and older, it is unlikely that environmental health and safety risks would be disproportionate to children or the elderly.

Overview of Relevant Community Plans
The land within the airport boundary is set out on the Kearny Mesa Community Plan – Recommended Land Use figure as General Aviation Airport. To the north (on the south side of Tech Way), the recommended land use is for Industrial and Commercial Business Parks. Beyond Tech Way, there is a small allocation of Low Medium Residential (20-29 DU/acre) and Mixed Use Commercial Residential (up to 20 DU/acre).

To the northeast, a small vernal pool exists, surrounded by Industrial and Commercial Business Parks.

To the east, and up to the Veterans Memorial Highway, more Industrial and Commercial Business Parks are recommended, along with a sliver of open space and some County facilities and General Commercial facilities are present.

South of the Airport, along Aero Drive a small belt of more Industrial and Commercial Business Parks are recommended. Beyond this small belt lies the boundary of the Kearny Mesa Community Plan with the Serra Mesa Community Plan. Within the Serra Mesa Community Plan, a range of low and low-medium residential (5-9 DU/acre and 10-14 DU/acre respectively), community facilities, a school and medium residential (15-43 DU/acre) are present.

To the west, in the parcel of land between the Cabrillo Freeway (State Route 163) Jacob Dekema Freeway (Interstate 805) and Balboa Avenue, a mixture of Industrial and Commercial Business Parks, General Commercial and Low Density Residential (5-9 DU/acre) is present. Beyond the Interstate 805, the communities of Linda Vista and Clairemont Mesa are present.

Summary and Recommendations
Potential construction and operation activities could cause potential environmental effects to environmental justice communities, where the total minority racial and ethnic population is greater than 50 percent of the population within the socioeconomic study area. However, since census tract 85.11 is not an environmental justice community it is likely there will be limited impact on minority

populations.

It is unlikely there would be impacts associated with relocation or property acquisition; impacts associated with low-income or impoverished communities; or from environmental health risks and safety risks to children's health.

Sources

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Appendix J

Terminal Instrument Procedures (TERPS) Analysis

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Executive Summary

Airport owners and operators should continually strive to maximize the utility of the Airport for its users, consistent with the community goals and objectives. The runway facilities are a key component of the airport and have a direct correlation with respect to demand and capacity considerations. In addition to ensuring adequate length, width and pavement strength for aircraft operations, runways should also offer operational capability during marginal weather conditions to the extent practical and achievable. Accordingly, an evaluation of the runway system was conducted as it relates to instrument approach procedures and focused on the Runway 10L end of the primary Runway 10L-28R that is not presently served with this capability. The current instrument approach procedures to Runway 28R were also reviewed with an aim to determine if mitigation of the controlling obstacle, i.e., the obstacle that establishes the approach minimums could result in a reduction of the approach minimums. These are summarized in the sections that follow as **Attachment A** and provides further detail of the analyses.

Runway 28R Controlling Obstacles

Runway 28R is served with two instrument approach procedures -- Category I ILS or LOC and an RNAV (GPS) and a medium intensity approach lighting system (MALSR) is installed on the runway end. The Category I ILS approach is clear of obstacles in the final approach segment and results in the lowest approach minimums that can be authorized for this type of procedure -- 200 feet ceiling and ½-s.m. visibility. The LOC approach minimums are controlled by a transmission tower KMYF0030 to yield an altitude of 800 feet AMSL or 377 feet above touchdown zone elevation and, as a consequence of the approach lighting system, a ½-s.m. visibility minimum. Enhancing the accuracy code for this tower will not lower the ceiling minimum. Lowering or removing the tower could result in a reduction to the approach minimums, but should be subject to a benefit/cost analysis.

The obstacles controlling the RNAV (GPS) instrument approach minimums for LNAV, LNAV/VNAV, LPV minimums differ from those for the Category I ILS or LOC approach with the exception of the LPV minimums that are equivalent owing to no penetrations of the obstacle clearance surface. The tree KMYF0005 controlling the LNAV/VNAV approach minimums could also be a cluster of trees and is surveyed to the highest level of accuracy. Tree removal could lower the currently published instrument approach ceiling minimum of 327 feet above the touchdown zone elevation, but should be subject to an appropriate benefit/cost analysis. The LNAV approach minimums are controlled by the same transmission tower KMYF0030 that is associated with the LOC approach. Its lowering or removal could lower the current approach ceiling minimum of 417 feet above the touchdown zone elevation should such action be considered cost-justified.

Circling minimums for both types of instrument approach procedures are controlled by a tank KMYF0022 that has been confirmed to no longer exist and this finding should be communicated to the FAA Flight Procedures Office. A review of the obstacle data indicates that a building located at latitude 32°49'37.24"N and longitude 117°08'30.57"W at an elevation of 577' AMSL with an accuracy code of 1A will control the circling minimums. It is located north of the Airport on the north side of Spectrum Center Boulevard and east of Kearny Villa Road. The elevation of this building is 1 foot less than that of the currently identified controlling obstacle (tank) and thus the circling minimums will remain unchanged.

Runway 10L Approach Procedure Analysis

An instrument approach procedure needs to consider airspace constraints and the obstacle environment. For Runway 10L, these factors present some challenges to implementing an instrument approach procedure. Specifically, these include:

- The proximity of the Airport to others in the region that influences airspace use and emphasize a westerly flow.
- Only San Diego International Airport some six n.m. southwest has an instrument approach procedure to accommodate east flow arrivals.

The TERPS evaluation determined that an RNAV (GPS) procedure with LNAV and LPV approaches could be achieved within the airspace environment and yield effective approach minimums. The LNAV approach can achieve approach minimums of 840 feet AMSL or 417 feet above the touchdown zone elevation and a visibility of one s.m. These approach minimums are controlled by a building located at latitude 32°49'37.24"N and longitude 117°08'30.57"W at an elevation of 577 feet AMSL and has been surveyed to the highest accuracy level required for analysis (1A.)

A potential LPV approach can be designed with approach minimums of 673 feet AMSL or 250 feet above the landing touchdown zone elevation due to penetrations of the TERPS obstacle evaluation surfaces. Although obstacles penetrate these surfaces, the extent of the penetrations was assessed as insufficient to cause further increases to the ceiling minimum. Notwithstanding this outcome, the visibility minimum for the LPV procedure is restricted to ¾-s.m. due to a pole located at latitude 38°49'11.38"N, longitude 117°08'53.36"W at an elevation of 451 feet AMSL that penetrates the 34:1 obstacle identification surface by 8 feet. Lowering or removal of this pole may be justified if the Runway 10L is to be equipped with a MALSR in order to achieve a visibility minimum of ½-s.m.

Recommendations

The FAA Flight Procedures Office should be formally advised that the tank identified as the controlling obstacle for circling approaches no longer exists. This will trigger a re-evaluation of the currently published circling approach minimums, which are anticipated to remain the same given the obstacle environment within the circling approach obstacle evaluation area.

The results of these analyses suggest that the establishment of LNAV and LPV approaches to Runway 10L be pursued and can yield effective approach minimums. These approach procedures support easterly flow arrivals during those times of the year that area winds favor that direction and/or when San Diego International Airport is operating in an easterly flow.

Attachment A

Existing Instrument Approach Procedures

The FAA has published two straight-in instrument approach procedures to Runway 28R at Montgomery-Gibbs Executive Airport utilizing ground-based terminal navigational aids and satellite-based systems. The ILS or LOC procedure offers three lines of approach minimums -- straight-in ILS, straight-in LOC, and a circling minimum. The RNAV (GPS) procedure provides four lines of approach minimums that may be flown depending on the avionics equipage of the aircraft. These are the LPV, LNAV/VNAV and LNAV minimums and a circling minimum. Approach minimums are presented for approach category A and approach category B aircraft. The current instrument approach procedure diagrams are presented on the last two pages.

Controlling Obstacles – ILS or LOC 28R

The controlling obstacles identified by the FAA, i.e., those that establish the altitudes for each segment of the ILS or LOC approach to Runway 28R are shown in ***Table 1***. A stepdown fix is incorporated in the intermediate and final approach segments. A stepdown fix in the final approach segment is applicable only when the LOC approach is flown.

Table 1 – ILS or LOC 28R Controlling Obstacles

Approach Segment	*Type*	*Coordinates*	*Elevation (feet above mean sea level [AMSL])*	*Accuracy Code*
Initial	Assumed Adverse Object	32°42'10.60"N 116°45'48.60"W	3960’	6A
Intermediate	Terrain	32°41'47.00"N 116°56'10.00"W	2567’	2A
Intermediate Stepdown	Assumed Adverse Object	32°46'01.49"N 116°59'00.06"W	1573’	2A
Final - ILS	None	NA	NA	NA
Final - LOC	Assumed Adverse Object	32°47'31.26"N 117°03'37.98"W	1029’	2C
Final Stepdown - LOC	Transmission Tower (KMYF0030)	32°47'59.99'N 117°06'20.24"W	549’	2A
Circling by Aircraft				
Category A and B	Tank (KMYF0022)	32°49'30.23"N 117°07'56.00"W	578’	1b

Source: Federal Aviation Administration Flight Procedures Office

Controlling Obstacles – RNAV (GPS) 28R

The controlling obstacles identified by the FAA, i.e, those that establish the altitudes for each segment of the RNAV (GPS) approach to Runway 28R are shown in ***Table 2***. The procedure incorporates a stepdown fix in the intermediate approach segments. A stepdown fix in the final approach segment is applicable only when the LNAV approach is flown.

Table 2 – RNAV (GPS) 28R Controlling Obstacles

Approach Segment	*Type*	*Coordinates*	*Elevation (feet above mean sea level [AMSL])*	*Accuracy Code*
Initial	Assumed Adverse Object	32°43'42.00"N 116°47'34.00"W	2999’	2C
Intermediate	Tower (06-000384)	32°41'47.00"N 116°56'10.00"W	2791’	4D
Intermediate Stepdown	Assumed Adverse Object	32°42'22.42"N 116°56'33.85"W	1839’	2C
Final - LPV	None	NA	NA	NA
Final – LNAV/VNAV	Tree (KMYF0005)	32°49'21.41"N 117°07'43.61"W	524’	1A
Final - LNAV	Assumed Adverse Object	32°47'31.26"N 117°03'37.98"W	1029’	2A
Final Stepdown - LNAV	Transmission Tower (KMYF0030)	32°47'59.99'N 117°06'20.24"W	549’	2A
Circling by Aircraft				
Category A and B	Tank (KMYF0022)	32°49'30.23" N 117°07'56.00"W	578’	2B

Source: Federal Aviation Administration Flight Procedures Office

Absent specific surveyed obstacle data, the FAA will typically incorporate an assumed adverse object in an approach segment, particularly when it overlies terrain that may or not be covered with vegetative growth such as trees. The use of 200 feet above ground level (AGL) election is commonly applied in these instances. An accuracy code of 2C (50 feet ± horizontal and 20 feet ± vertical) is acceptable for use in procedure design in the final approach segment. Less accurate codes such as 4D will require an upward adjustment to the reported elevation and the location of the obstacle. However, higher than 2C accuracy codes for the controlling obstacles in the initial and intermediate approach segments are acceptable for use without adjustment.

The approach minimums for the ILS procedure to Runway 28R are the lowest that can be authorized for this procedure with a medium intensity approach lighting system with runway alignment indicator lights (623 feet AMSL or 200 feet above touchdown zone elevation and ½-s.m. visibility.) The LOC approach minimums to Runway 28R reflect the transmission tower KMYF0030 location and elevation to yield an altitude of 800 feet AMSL or 377 feet above touchdown zone elevation and, because of the approach lighting system, a ½-s.m. visibility minimum. Enhancing the accuracy code for this tower will not lower the ceiling minimum. Lowering or removing the tower could result in a reduction to the approach ceiling minimum, but should be subject to a benefit/cost analysis.

The approach minimums for the RNAV (GPS) LPV approach to Runway 28R are the lowest that can be authorized for this procedure with a medium intensity approach lighting system with runway alignment indicator lights (623 feet AMSL or 200 feet above touchdown zone elevation and ½-s.m. visibility.) The LNAV/VNAV approach minimums are controlled by a tree or cluster of trees that border the western edge of the road loop at the northwestern intersection of Balboa Avenue and Cabrillo Freeway. The transmission tower that controls the approach minimums for the LOC approach is also controlling the LNAV approach minimums (840 feet AMSL or 417 feet above touchdown zone elevation and ½-s.m. visibility.) Mitigation of the tree or tree cluster controlling the LNAV/VNAV ceiling elevation of 750 feet AMSL or 327 feet above touchdown zone elevation may be possible; however, the gain in runway end use afforded by a lower ceiling minimum should be evaluated to determine if the cost associated with such mitigation is warranted.

The circling minimums for the ILS or LOC and RNAV (GPS) procedures are based on a tank structure; however, the coordinates in the FAA database do not support physical evidence of the tank. This obstacle should be reassessed by the FAA for its accuracy in the design of the procedure. In the event that this tank is determined to no longer be at the site, another obstacle will assume the controlling function. The circling approach TERPS obstacle evaluation area is defined by radii extending from the end of each runway for a distance of 1.7 n.m. when applied to approach category B aircraft. A review of the obstacle data indicates that a building located at latitude 32°49'37.24"N and longitude 117°08'30.57"W at an elevation of 577' AMSL with an accuracy code of 1A will control the circling minimums. It is located north of the Airport on the north side of Spectrum Center Boulevard and east of Kearny Villa Road and has red obstruction lights atop of it. The elevation of this building is 1 foot less than that of the currently identified controlling obstacle (tank) and thus the circling minimums will remain unchanged.

Potential Instrument Approach Procedures to Runway 10L

The design criteria for instrument approach procedures is contained in several FAA Orders, principal among which are:

- FAA Order 8260.3C, United States Standard for Terminal Instrument Procedures (TERPS)
- FAA Order 8260.58A, United States Standard for Performance Based Navigation (PBN) Instrument Procedure Design

These procedure design documents offer flexibility in the configuration of the final, intermediate and initial approach segments in terms of their alignment with the extended runway centerline, length, width when joining the succeeding segment, intersection point of an offset alignment with the extended runway centerline, and descent gradients. Additionally, a stepdown fix may be incorporated into the design of the procedure in the final segments for only LNAV approach procedures in order to achieve lower minimum descent altitudes, which allows the design to accommodate obstacles that cannot otherwise be mitigated by their removal or reduction in elevation. Stepdown fixes are

considered a nonstandard application of TERPS design criteria.

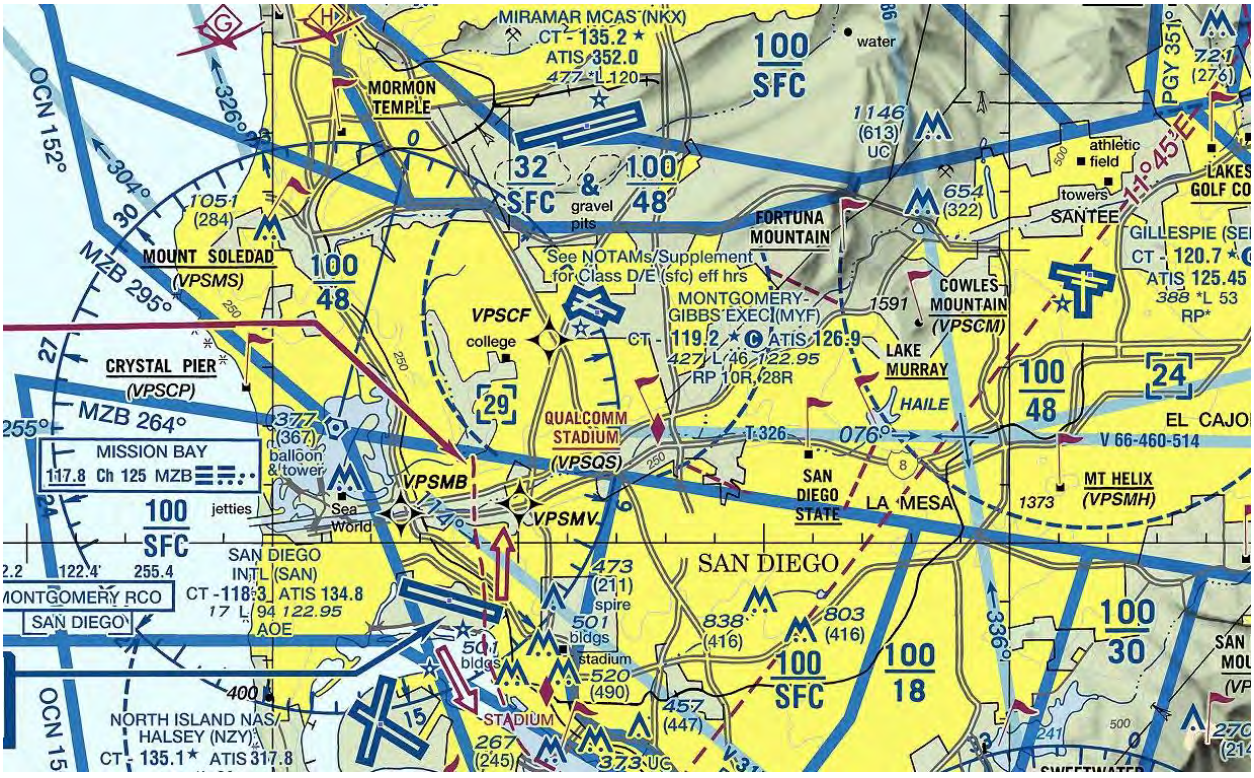
RNAV (GPS) LNAV 10L

A conceptual design for an RNAV (GPS) procedure with LNAV (lateral navigation) minimums was evaluated to the Runway 10L landing threshold at Montgomery-Gibbs Executive Airport (Airport.) Procedure design guidance contained in the FAA Orders listed above was utilized in the analysis. The key elements in the conceptual design take into consideration the obstacle environment, the use of the airspace for operations at neighboring airports, and the guidelines presented in the FAA Orders with respect to course alignments and descent gradients between each segment fix of the instrument approach procedure.

Current instrument approaches to Runway 28R at the Airport are published for approach category A and B aircraft. Accordingly, the RNAV (GPS) LNAV procedure evaluation was for the same aircraft use to Runway 10L.

The airspace environment in the vicinity of the Airport can be described as very active given the number of airports in proximity to one another, each with instrument approach procedures, and the mix of commercial, general aviation and military aircraft. As illustrated in **Figure 1**, the Airport and those surrounding it are located in Class B airspace, sections of which are segregated by minimum altitude floor levels and all extend to 10,000 feet above mean sea level (AMSL.) Clearance from air traffic control is required when operating in Class B airspace. The Airport is located within that segment of the Class B airspace with a floor of 4800 feet AMSL. Aircraft flying at a lower altitude under visual flight rules need not require air traffic control clearance to transit the airspace.

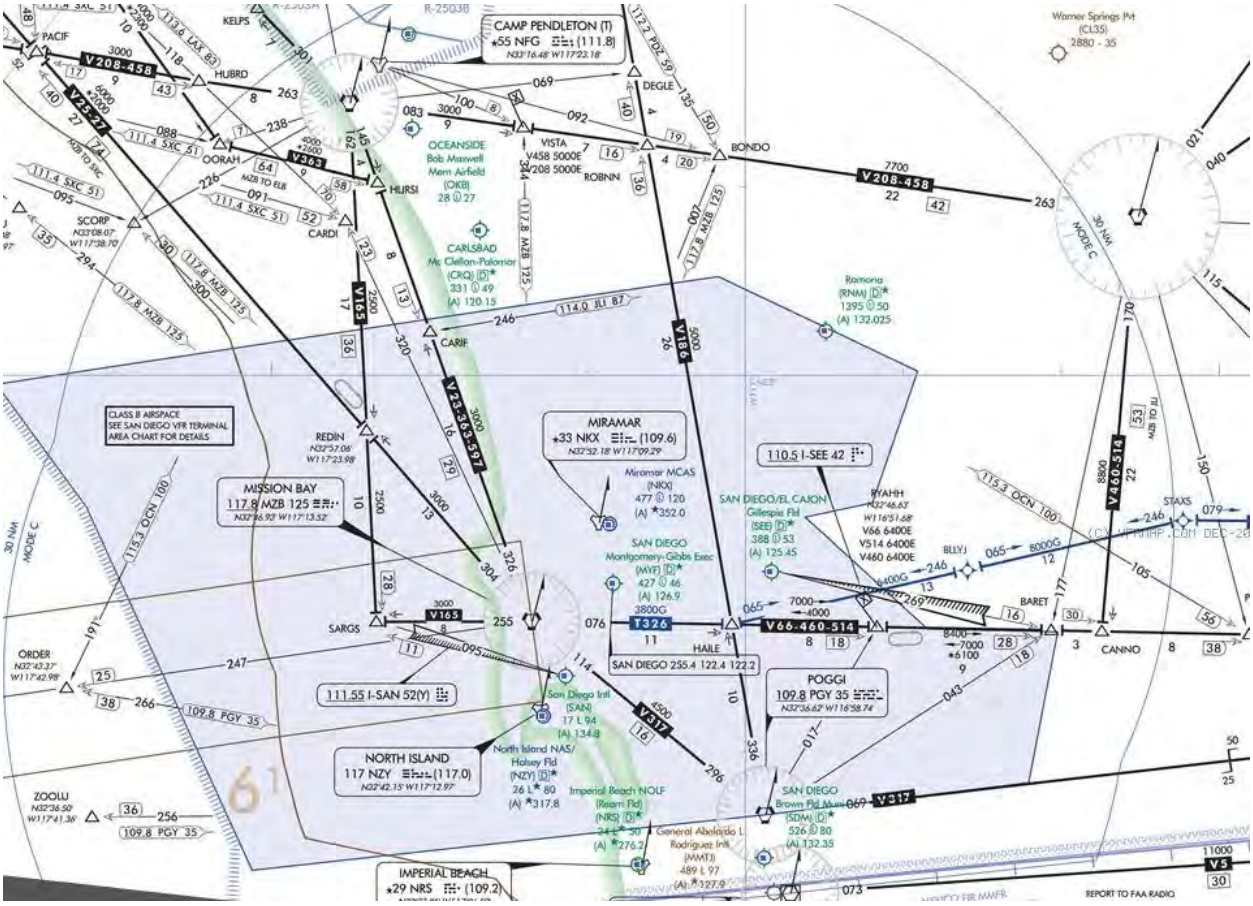
Figure 1 – Airspace Environment



Source: www.faa.gov, San Diego Terminal Area Chart

Each of the airports within the area airspace is served with an instrument approach procedure and all are based on a westerly traffic flow, that is, arrivals on runways with alignments to the west. Only San Diego International Airport provides instrument approach procedures, an instrument landing system and an RNAV (GPS), for landings to the east. Winds in the region also favor westerly traffic flow. Consequently, instrument flights and approach procedures in the region tend to support a westerly direction. Given the above considerations, it was determined that aircraft instrument arrivals to Runway 10L at the Airport should avoid conflict with standard terminal arrival route procedures to San Diego International Airport. ***Figure 2*** highlights the current low altitude instrument flight routes (those less than 18,500 feet AMSL) and suggests that an instrument arrival route to Runway 10L be west of Victor 23-363-597 as defined by the 326° radial from the Mission Bay VORTAC (MZB) until aligned with the extended Runway 10L centerline.

Figure 2 – Low Altitude Instrument Flight Chart



Source: www.faa.gov, Enroute L-4 Chart

The geometry of the final approach segment obstacle evaluation area (OEA) for an RNAV (GPS) procedure with LNAV minimums is essentially rectangular in shape with flaring to sides as it meets the incoming intermediate approach segment. The final approach segment can be offset by as much as 30 degrees (°) to either side of the extended centerline, a design feature of TERPS that enables avoidance of obstacles. The optimal length of the final approach segment is five nautical miles (n.m.) and the optimal descent gradient is 318 feet per nautical mile (318'/n.m.) Unless circumstances require, it is desirable to achieve these outputs in the design of the instrument approach procedure.

Obstacle Data Sources

Obstacle data for the Airport environs is available from three primary sources. These include the National Digital Obstacle File (DOF), instrument departure procedures based on obstacle data in the FAA database, and surveys conducted by third parties in accordance with FAA standards. All obstacles are accorded an accuracy code that reflects the degree to which the reported location and elevation of the obstacle meets a series of established criteria. Accuracy codes are assigned to those obstacles that have been verified to meet these criteria. The DOF provides obstacle data for manufactured objects, whereas other sources identify both manufactured and natural objects such as buildings, water towers and vegetative growth.

A review of the DOF for the Airport environs identified a number of transmission power line and communications towers that were assigned low accuracy codes, such as 5E, which implies that the reported elevation should be increased by 125' when used in TERPS analyses. Normally, these structures when first proposed, are reported with a high level of accuracy when transmitted to the FAA as part of its aeronautical study that assesses the potential impact they may have on the navigable airspace. However, it is also common that the final constructed location and elevation of these structures is not formally communicated to the FAA. As a consequence, when the obstacle data is input to the DOF, a 5E accuracy code is assigned. For the purpose of the instrument approach procedure evaluations presented herein, it was assumed that the adjustment associated with a 5E accuracy code could be obviated inasmuch as the initial reported location and elevation data was considered to be meet the required accuracy criteria. However, accuracy codes assigned to other obstacles as shown in the DOF were taken into consideration in the TERPS evaluations.

Controlling Obstacle and Procedure Design

Review of the obstacle environment in the final approach segment OEA indicated that the controlling obstacle, that is, the obstacle establishing the minimum descent altitude (MDA) is a building located at latitude 32°49'37.24"N and longitude 117°08'30.57"W. At an elevation of 577 feet AMSL, the controlling obstacle has been surveyed to the highest accuracy level required for analysis (1A.) The resulting MDA is 840 feet AMSL, or a ceiling of 417 feet. It is noted that offsetting the final approach course as much 30° to the north does not mitigate the impact of any of the potentially controlling obstacles.

The final approach fix (FAF) was set at the optimal 5 n.m. distance along the extended runway centerline at an elevation determined by obstacles located in the intermediate approach segment as well as the objective to achieve the optimal 318'/n.m. descent gradient. A 50-foot threshold crossing height was implemented in the procedure design. The altitude of the FAF is 2000 feet AMSL and yields an acceptable descent gradient of 327'/n.m.

The intermediate approach fix (IF) was established by the 343° radial from the MZB VORTAC at a distance of 14.3 n.m. and an elevation of 3500 feet AMSL. This yields a descent gradient of 150'/n.m., which is the optimal value in the intermediate approach segment.

The initial approach fix (IAF) was based on a 145° heading from the CARIF reporting point and an elevation of 6600 feet AMSL. The descent gradient between the IAF and the IF is 250'/n.m. and is the optimal value for this segment of the approach procedure.
The IAF and IF are at higher altitudes than those associated with the instrument approach procedures to Runway 9 at San Diego International Airport, thereby affording vertical separation between the two instrument arrival streams. Once reaching an altitude of 2000 feet AMSL, each of the instrument approach procedures to these airports has a FAF altitude of 2000 feet AMSL.

The missed approach procedure for the RNAV (GPS) LNAV to Runway 10L incorporates a straight

climb to 3000 feet AMSL and then a climbing left turn to 5000 feet AMSL with a holding position at the Camp Pendleton VORTAC (NFG) north-northwest of the Airport. The left turn also provides separation from aircraft executing a missed approach to Runway 9 at San Diego International Airport that provide for straight and then climbing right turns to fixes positioned offshore and to the southwest.

The visual area associated with the RNAV (GPS) LNAV approach to Runway 10L is penetrated by an obstacle, a pole located at latitude 38°49'11.38"N, longitude 117°08'53.36"W at an elevation of 451 feet AMSL. The penetration is 8 feet to the 34:1 obstacle identification surface and thus the visibility minimum can be as low as ¾ statute mile (s.m.) for approach category A and B aircraft. However, the achievable ceiling minimum of 417 feet requires a 1 s.m. visibility minimum. Installation of an omnidirectional approach lighting system (ODALS) can lower the visibility minimum to ¾-s.m. Action to implement the ODALS should be subject to a net present value, life-cycle benefit/cost analysis to determine if it is cost-justified.

RNAV (GPS) LPV 10L

Current instrument approaches to Runway 28R at the Airport are published for approach category A and B aircraft. Accordingly, the RNAV (GPS) LNAV procedure evaluation was for the same aircraft use to Runway 10L.

An RNAV (GPS) LPV procedure provides lateral and vertical guidance during the approach to a runway end. Although the terms 'lateral and vertical' imply a precision approach, an LPV procedure is classified as a nonprecision instrument approach for the purposes of Federal Aviation Regulations Part 77. This is because the LPV does not meet International Civil Aviation Organization (ICAO) Annex 10 requirements to be considered a precision approach. LPV approaches take advantage of the refined accuracy of the wide area augmentation system (WAAS) lateral and vertical guidance to provide an approach very similar to a Category I instrument landing system (ILS) flown to a decision altitude (DA.) When TERPS criteria are applied, the LPV procedure is referred to as an approach procedure with vertical guidance (APV.)

A conceptual design for an RNAV (GPS) procedure with LPV minimums was evaluated to the Runway 10L landing threshold at Montgomery-Gibbs Executive Airport (Airport.) Procedure design guidance contained in FAA Order 8260.3C, "United States Standard for Terminal Instrument Procedures (TERPS)" and FAA Order 8260.58A, "United States Standard for Performance Based Navigation (PBN) Instrument Procedure Design" were utilized in the analysis. The key elements in the conceptual design take into consideration the obstacle environment, the use of the airspace for operations at neighboring airports, and the guidelines presented in the FAA Orders with respect to course alignments and descent gradients between each segment of the instrument approach procedure.

Obstacle data was obtained from surveys, and that reported in the Digital Obstacle File and obstacles noted for instrument departures on Runway 28R as maintained by the FAA. As noted for the conceptual RNAV (GPS) LNAV procedure, elevation adjustments defined by the accuracy code assigned to certain manufactured obstacles (power transmission line and communication towers) were assumed to not be applicable.

Briefly, the obstacle evaluation area for the LPV procedure consists of three sloping surfaces termed W, X and Y in the final approach segment that originate at a calculated distance from the landing threshold and rise at a slope defined by the glidepath angle. This slope applies to the W surface; the X surface is attached to both sides of the W surface and rises at a slope of 1' vertically for each 4' of horizontal distance perpendicular to the final approach course. The Y surface is similarly attached to

the both sides of the X surface, but has a slope of 1' vertical for every 7' of horizontal distance. The overall dimensions of the LPV obstacle evaluation surface is narrower than that for an LNAV procedure owing to the higher level of signal accuracy afforded by the positioning satellites and avionics in the aircraft. The basic design of the final, intermediate and initial approach segments are usually similar for each type of procedure, which allows one approach chart to serve both procedures.

Controlling Obstacle and Procedure Design

Based on the fix locations and altitudes used to design the RNAV (GPS) LNAV procedure, it was found that several obstacles penetrate either the W or X obstacle evaluation surfaces by between 2 feet and 49 feet. Normally, penetrations to the obstacle evaluation surface trigger an upward adjustment to the decision altitude for the procedure. The lowest decision altitude that can be authorized for an LPV procedure is 200 feet above the landing touchdown zone elevation. However, further review of the obstacle penetrations revealed that they were insufficient to cause an upward adjustment to the decision altitude. Nonetheless, when such penetrations occur, the minimum decision altitude that can be authorized is 250 feet above the landing touchdown zone elevation. This equates to a decision altitude of 673 feet above mean sea level.

The final, intermediate and initial approach fix locations and elevations defined for the RNAV (GPS) LNAV procedure described above are appropriate for use with the RNAV GPS) LPV procedure. Similarly, the missed approach area is clear of obstacles and can mimic that flown for the RNAV (GPS) LNAV approach.

The visibility component of the LPV approach minimums is based on the availability of an approach lighting system and the extent of penetrations to the visual area. The pole identified as a penetration to the 34:1 obstacle identification surface of the visual area for the RNAV (GPS) LNAV procedure is also applicable in this case, and restricts the visibility minimum to ¾-s.m. This visibility minimum is also consistent with the achievable ceiling minimum of 250 feet. Installation of any level of approach lighting system does not result in a lowering of the visibility minimum because of the penetration tot the 34:1 obstacle identification surface. In the event that this obstacle can be lowered in elevation by at least 8 feet, removed or relocated to a location beyond the boundary of the visual area, the installation of a medium intensity approach lighting system with runway alignment indicator lights (MALSR) can lower the visibility minimum to ½- s.m. Such action should be subject to a net present value, life-cycle benefit cost analysis.

Recommendations

The existing ILS or LOC and RNAV (GPS) LPV and LNAV/VNAV approach minimums to Runway 28R are either the lowest that can be authorized or can be considered reasonable given the obstacle environment at the Airport. There appears to be some inaccuracies associated with certain obstacles that when further investigated by the FAA could result in slightly lower approach minimums. The FAA should be advised of these discrepancies so that they may be reassessed when the existing instrument approach procedures undergo their periodic review. In any event, those approaches that could realize lower approach minimums should be subject to appropriate benefit/cost analyses that compare the economic value of increased runway end utilization and the cost to mitigate the controlling obstacle.

An RNAV (GPS) procedure to Runway 10L can yield useful approach minimums and should be pursued for final design, flight check and establishment by the FAA Flight Procedures Office. Prior to initiating a request to the FAA for this approach procedure, the Airport should investigate the potential of lowering or relocating the pole located at latitude 38°49'11.38"N, longitude 117°08'53.36"W at an elevation of 451 feet AMSL to mitigate its penetration of the 34:1 obstacle identification surface of the

visual area. This would provide opportunity to achieve a ½-s.m. visibility minimum in the event that a MALSR was to be installed on Runway 10L.

Disclaimer

The evaluation and findings presented above are based on obstacle data that is readily available and is limited to the FAA design guidelines relevant to RNAV (GPS) LNAV and LPV instrument approach procedures. The FAA may have other data that can alter these findings and, therefore, this analysis should be used to support a request to the FAA for its further detailed assessment of the potential to establish the suggested RNAV (GPS) LNAV and LPV procedure to Runway 10L and their flight check prior to publication.

Figure 3 – ILS or LOC RWY 28R Approach Plate

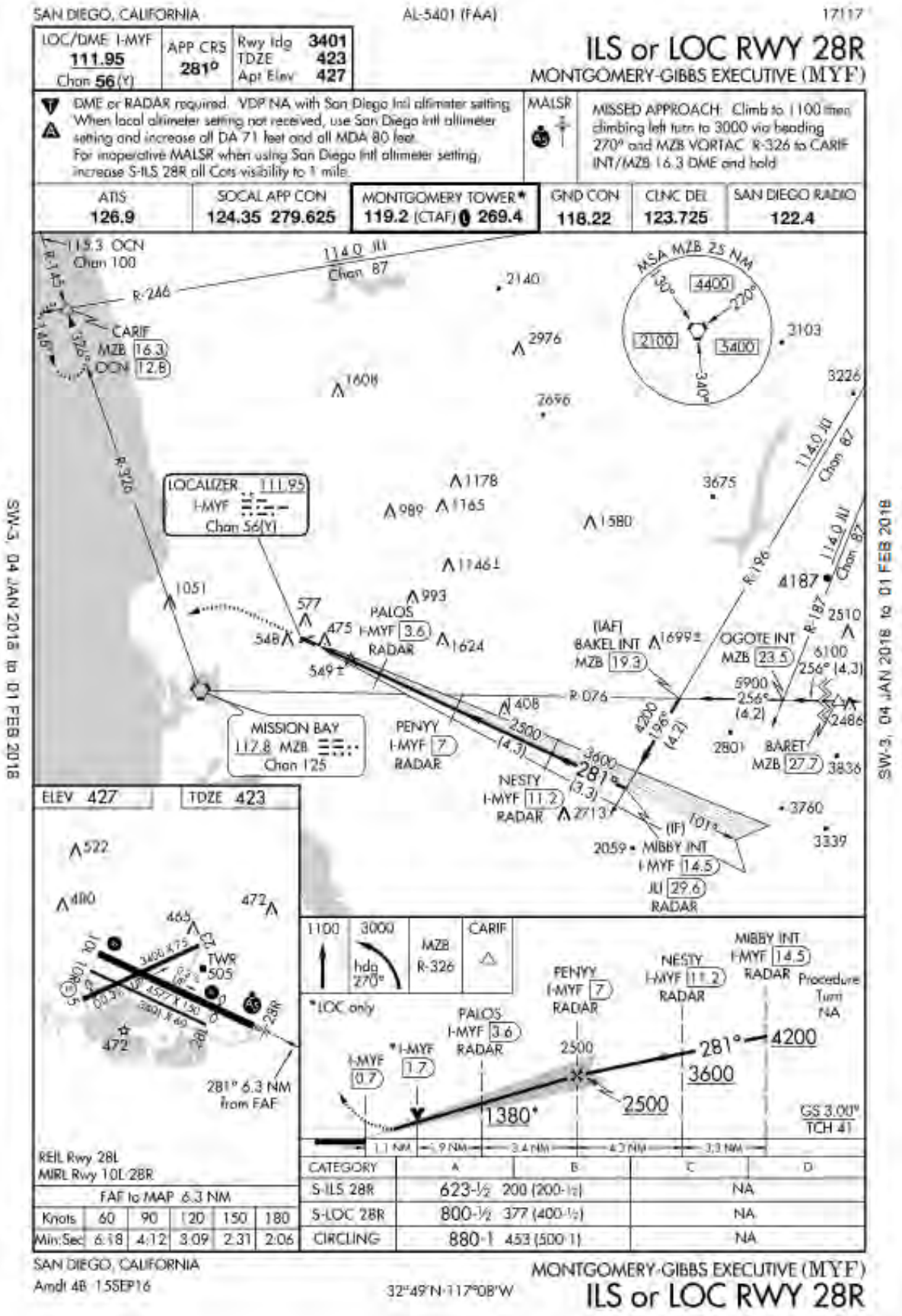
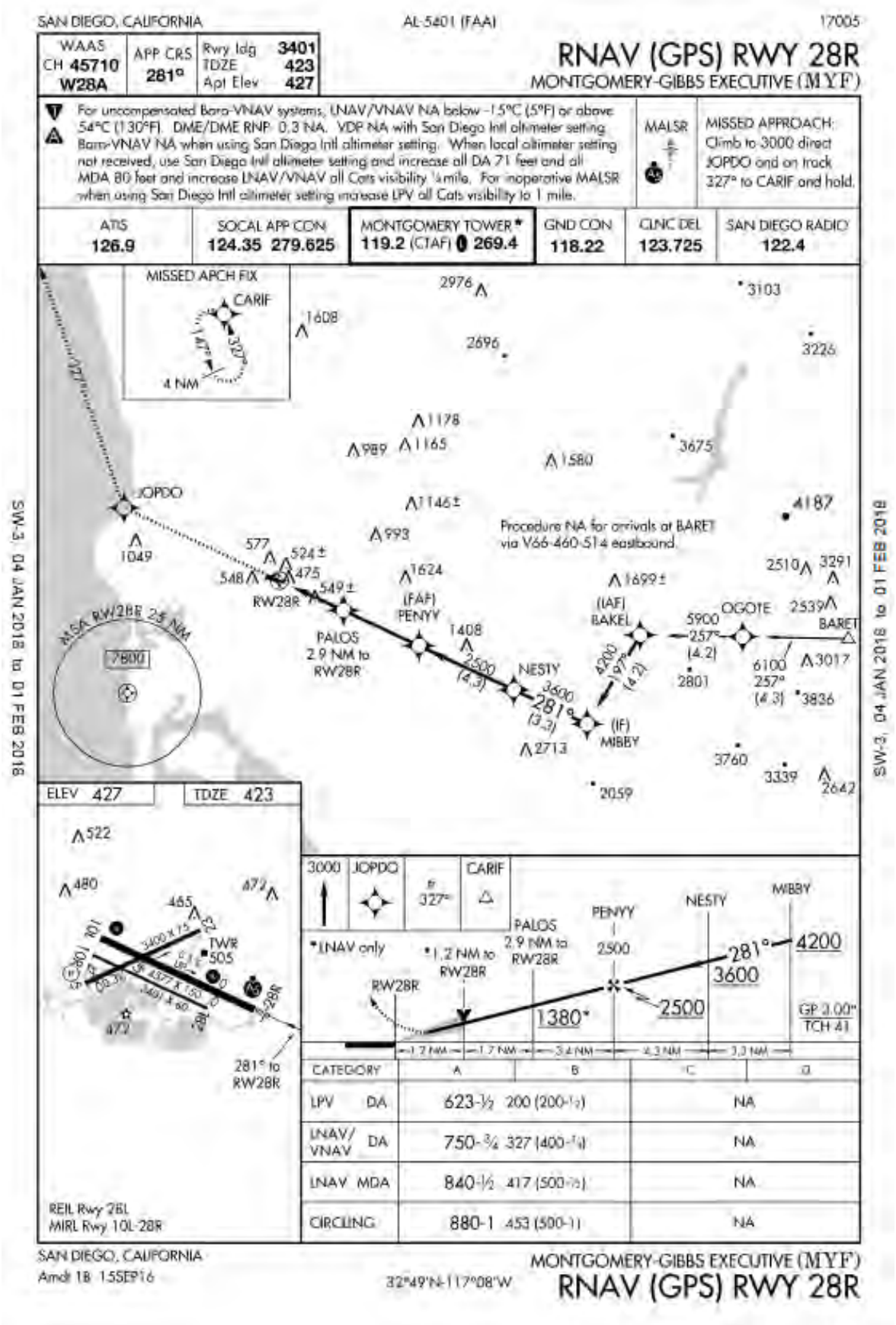


Figure 4 – RNAV (GPS) RWY 28R



Appendix K

PAC and Public Meeting Comments on Alternatives

PAC Meeting #4 Comments

The fourth PAC meeting of the master planning process was held on 01-16-2018. The comments received at this meeting are documented in the following pages.

SD Airports

City of San Diego Airports Master Plan Updates

PAC Comments

Airside Alternative 2

Pros	Cons	Comments
alt 3 - Running 28R th Not Needed Big fun	Concerns about D & capacity ~~Extra~~ Reduction	
Pro - 28 R - MALL Quieter	Run Up Locations	
	- Questioning C Removal	
	- Removal of Length at 5 threshold -	
	- Concerned of Safety for 23/5 Removal	
	- minimal issue with Runway 5 Removal	
	- Cons	

Airports

City of San Diego Airports Master Plan Updates

PAC Comments

Airside Alternative 3

Pros	Cons	Comments
THIS REFERS TO ALTERNATIVES 2 & 4 ALSO	RUNUP AREA ADJACENT TO TAXIWAY HOTEL IS A POOR CHOICE AS IT IS GOING TO CAUSE PROBLEMS WITH ADJACENT HANGARS. IT IS NOT NECESSARY AS EXISTING 28R RUNUP AREA IS ADEQUATE FOR LARGE AIRCRAFT	CONSIDER MOVING THIS RUNUP AREA JUST EAST OF THIS LOCATION.
ELIMINATING RUNWAY 5 IS A GREAT IDEA. IT IS NOT NEEDED AND MAKE RYZ ~~MORE USEABLE~~ BETTER.	exaust for Residents on Aero Drive	
	Wind Scenario on 5/23/Removal	

SD Airports

City of San Diego Airports Master Plan Updates

PAC Comments

L Alternative 2

Pros	Cons	Comments
	Gibb - to commercial loose parking	
	loss of vehicle parking from terminal expansion - proposed parking is too far/no road access	
Expanded Terminal maintains the Perimeter gateway.		

SD Airports

City of San Diego Airports Master Plan Updates

PAC Comments

L Alternative 2

Pros	Cons	Comments
#4 WASH RACK IS ALREADY PLANNED A E+K FOR COAST. MAY NOT NEED ANOTHER. IF SO, LOCATE OPPOSITE ON FIELD, #3. 2 WASHRACK OUT. BAD LOCATION.	DO NOT GIVE UP LAND FOR NON-AVIATION USE. Airport land is too precious + rare.	

SD Airports

City of San Diego Airports Master Plan Updates

PAC Comments

Alternative 2

Pros	Cons	Comments
	Corp Helicopter area + the down parking lots right up against are going to be blasted + could cause airplane damage	
	Proposed washrack 2 — too close to Aero + washing over spray will be problemmatic	
	Proposed washrack is also disconnected from areas + is located on prime real estate	
	Relocate washrack #2 to location #4 →	
		Need commercial along Aero Drive for noise abatement

Airports

City of San Diego Airports Master Plan Updates

PAC Comments

Alternative Landside #3

Pros	Cons	Comments
		in 41 hangar area, show vehicle parking
		Coast will have washrack
		access from transient parking to new terminal Pilots have lots of luggage/dogs
		look at new terminal where existing is

City of San Diego Airports Master Plan Updates

PAC Comments

Landside Alternative 3

Pros	Cons	Comments
41 Hangars on SE end by Gibbs Lear - Great Idea!	~~-~~ too many issues w/ vernal pools and accomodating grade changes	
Nice to have 2 new airplane wash-racks		Would want to make sure the terminal bldg. has access for transient pilots to the secure area thru the bldg.
		Is there adequate parking at the public viewing area
		Want to see the security (fencing, etc) maintained or upgraded, not degraded
		Washrack by Aero dr. is too close to street

SD Airports

City of San Diego Airports Master Plan Updates

PAC Comments

Landside Alternative 3

Pros	Cons	Comments
		No housing in non-aeronautical land use area on Aero Drive
		Why does the terminal need to be in the same building as the office?
		Terminal should be farther back, more towards Aero Dr.

SD Airports

City of San Diego Airports Master Plan Updates

PAC Comments

Alternative LANDside #3

Pros	Cons	Comments
81 HANGAR AREA – RECONFIGURE MIX	NW Aero Land ALONG AERO DR KEEP IN AERO USE	
41 HANGAR AREA – GOOD MIX		
WASHRACKS GOOD		

Group 1

SD Airports

City of San Diego Airports Master Plan Updates

PAC Comments

Alternative 4 (LANDSIDE)

Pros	Cons	Comments
	NEW TERMINAL PRESENTS TAXI ISSUES UNLESS DUAL OR "IN AND OUT" TAXIWAYS ON TAXIWAY "J"	HENRY SICKELS 858-518-8338 GIBBS FLYING SERVICE
	WASH RACK ON AERO DRIVE IS IN A HAZARDOUS AREA WIND WILL BLOW SPRAY ONTO AERO DR	PROPOSED TERMINAL W/CL INCREASE AIRCRAFT NOISE TO NEIGHBORHOOD ACROSS AERO DRIVE. TAXIING AIRPLANES)
	CONSIDERATION NEEDS TO BE TAKEN FOR HELICOPTER ARRIVALS & DEPARTURE FROM THE PEP AREA IMPACTING FIXED WING	MAKE NOISE ALSO. TERMINAL SHOULD BE AT PRESENT LOCATION OR SOMEWHERE AWAY FROM AERO.
	Accessibility of transient parking (s/c) and terminal - logistics w/ transport would be difficult.	A HIGH WALL ALONG AERO DR OR A ROW OF HANGARS WHICH ALSO WORK WE ARE KNOWN HOW NOISEY IT IS AT THE
		CURRENT TERMINAL. IMAGINE ALL THAT ON AERO DRIVE.
		Eastern portion of Gibbs parcel - re-claimed/re-vegetated
		Fire Dept impact? development

Group 2

SD Airports

City of San Diego Airports Master Plan Updates

PAC Comments

Alternative 4 Variation

Pros	Cons	Comments
	41 hanger area has too many vernal pool issues making it impractical	
	Not enough tie-downs in the area N. of the hotel; SW of RWY 5 end.	Make the area adjacent to Aero Dr. commercial
		Follow Alt. 3 for location of the new terminal building
		Modify the 87 tie down area to make the space available per airplane bigger
		Possibly shift the public viewing area to the terminal building
		Enhance the value of the airport to the community; ie. bike/walking path

Group 3

SD Airports

City of San Diego Airports Master Plan Updates

PAC Comments

Alternative Landside Alt 4

Pros	Cons	Comments
22 hangars on west End of RNWY 5 - Great Idea! (Spiders)		
Moving Terminal to Gibbs area - why? Old Terminal Location is good.	Conflict w/ large AC traffic taxiing all the way to Gibbs to new terminal.	

Group 4

SD Airports

City of San Diego Airports Master Plan Updates

PAC Comments

Alternative Landside #4

Pros	Cons	Comments
	MOVING TERMINAL IS NOT A MAJOR ECONOMIC MOVE	DOES LOUNGE NEED TO BE IN TERMINAL
		TERMINAL & LOUNGE ARE BETTER OPTIONS

Balboa Ave.

Route 163

ATCT

Glenn H. Curtiss Rd.

John J. Montgomery Dr.

Aero Dr.

Afton Rd.

Sandrock Rd.

Source: Atkins

SD Airports

Montgomery-Gibbs Executive Airport Master Plan

Figure
Alternative 2

Legend

- Property Line
- Existing Buildings
- Existing Airfield Pavement
- Proposed Airfield Pavement
- Proposed Demolition
- Proposed Segmented Circle

250' 0' 250' 500'

ATKINS
Member of the SNC-Lavalin Group

Balboa Ave.

Route 163

ATCT

Glenn H. Curtiss Rd.

John J. Montgomery Dr.

Aero Dr.

Afton Rd.

Sandrock Rd.

Source: Atkins

SD Airports

Montgomery-Gibbs Executive Airport Master Plan

Figure
Alternative 3

Legend

- Property Line
- Existing Buildings
- Existing Airfield Pavement
- Proposed Airfield Pavement
- Proposed Demolition
- Proposed Segmented Circle
- RPZ — RPZ — Existing RPZ
- RPZ — RPZ — Proposed RPZ

250' 0' 250' 500'

ATKINS
Member of the SNC-Lavalin Group



Source: Atkins

SD Airports

Montgomery-Gibbs Executive Airport Master Plan

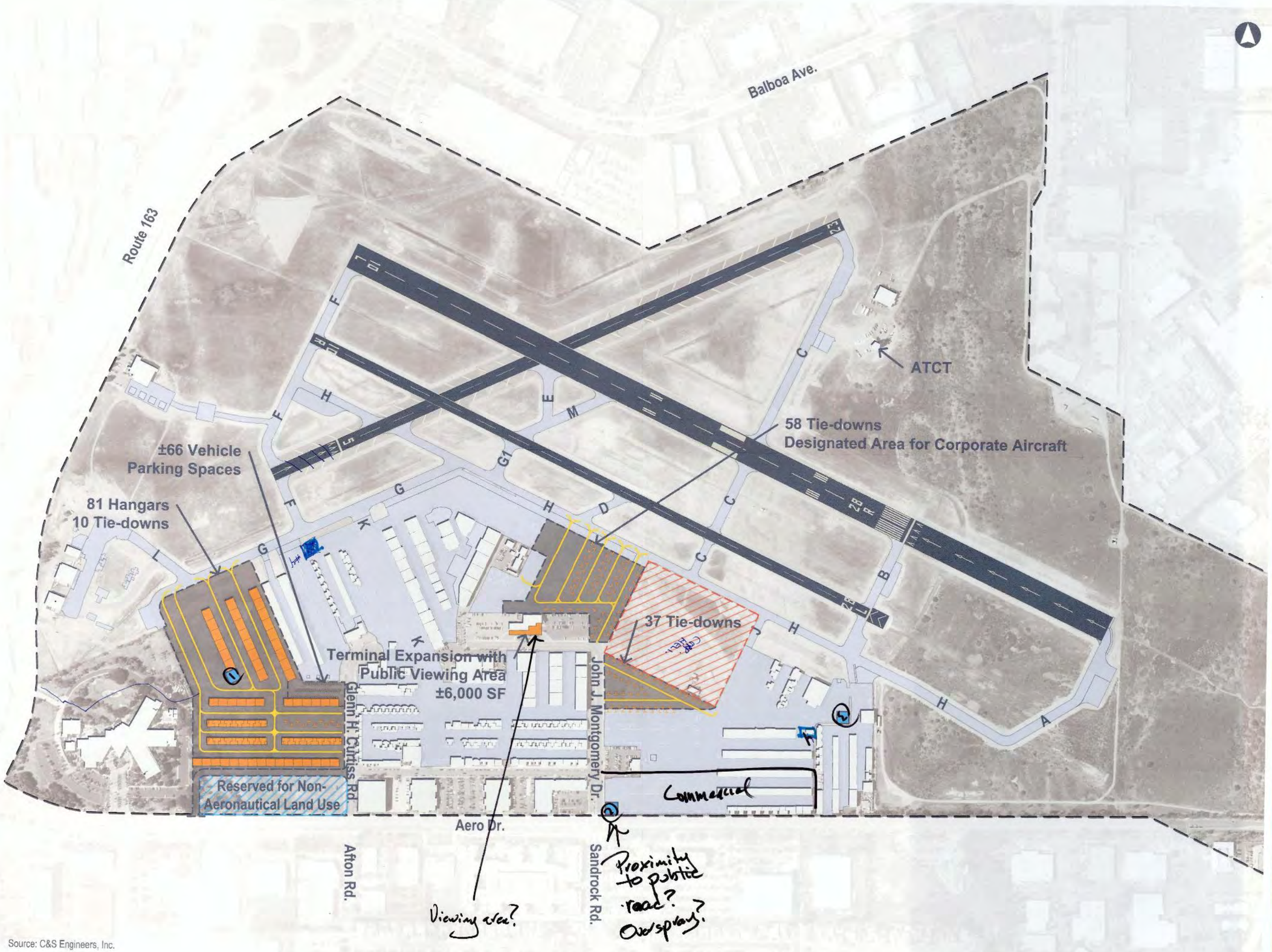
Figure
Alternative 4

Legend

- Property Line
- Existing Buildings
- Existing Airfield Pavement
- Proposed Airfield Pavement
- Proposed Demolition
- Proposed Segmented Circle

250' 0' 250' 500'

ATKINS
Member of the SNC-Lavalin Group



Source: C&S Engineers, Inc.

SD Airports

Montgomery-Gibbs Executive
Airport Master Plan

Figure 5.X
Alternative 2 -
Smooth Transition

Legend

- Property Line
- Existing Buildings
- Proposed Buildings
- Existing Airfield Pavement
- Proposed Airfield Pavement
- Corporate Helicopters Right of First Refusal
- Proposed Taxiway/Taxilane Centerline
- Proposed Aircraft Tie-Downs
- Proposed Wash Rack

DRAFT

250' 0' 250' 500'

C&S COMPANIES®

Balboa Ave.

Route 163

Public Viewing Area

ATCT

82 Tie-downs
Designated Area for Corporate Aircraft

±66 Vehicle
Parking Spaces

81 Hangars
10 Tie-downs

±92 Vehicle
Parking Spaces

41 Hangars

New Terminal
±16,000 SF

15 Tie-downs

Reserved for Non-
Aeronautical Land Use

Glenn H. Curtiss Rd.

John J. Montgomery Dr.

Aero Dr.

Afton Rd.

Sandrock Rd.

Source: C&S Engineers, Inc.

SD Airports

Montgomery-Gibbs Executive
Airport Master Plan

Figure 5.X
Alternative 3 -
Reconfiguration

Legend

- Property Line
- Existing Buildings
- Proposed Buildings
- Existing Airfield Pavement
- Proposed Airfield Pavement
- Corporate Helicopters Right of First Refusal
- Proposed Taxiway/Taxilane Centerline
- Proposed Aircraft Tie-Downs
- Proposed Wash Rack

DRAFT

250' 0' 250' 500'

C&S COMPANIES®

Balboa Ave.

Route 163

Public Viewing Area

ATCT

78 Tie-downs
Designated Area for Corporate Aircraft

22 Hangars
7 Corporate Hangars

±66 Vehicle Parking Spaces

37 Tie-downs

41 Hangars

New Terminal
±16,000 SF

±150 Vehicle Parking Spaces

81 Hangars
10 Tie-downs

Reserved for Non-Aeronautical Land Use

Glenn H. Curtiss Rd.

John J. Montgomery Dr.

Aero Dr.

Afton Rd.

Sandrock Rd.

Source: C&S Engineers, Inc.

SD Airports

Montgomery-Gibbs Executive Airport Master Plan

Figure 5.X
Alternative 4 - Fresh Perspective

Legend

- Property Line
- Existing Buildings
- Proposed Buildings
- Existing Airfield Pavement
- Proposed Airfield Pavement
- Corporate Helicopters Right of First Refusal
- Proposed Taxiway/Taxilane Centerline
- Proposed Aircraft Tie-Downs
- Proposed Wash Rack
- Potential Fuel Island Location Options

DRAFT

250' 0' 250' 500'

C&S COMPANIES®

Public Meeting #3 Comments

The third public meeting of the master planning process was held on 02-20-2018. The comments received at this meeting are documented in the following pages.

Airside Alternative 2

1. Suggestion, expand B run-up area to the east, instead of eliminating it.
2. Would the added run-up area at 28L need clearance from "ground "to cross RWY "H" for takeoff position on RWY 28L?

Airside Alternative 3

1. Eliminating Runway 5/23 is a terrible idea. Never lose a runway.

Q&A Session Card

1. Were flying clubs part of economic analysis?
2. What is the plan for upgrading the noise monitoring system as well as the security surveillance for planes taking off from field?
3. What is the current status of moving back the displaced threshold to allow larger aircraft to land?

SD Airports

MONTGOMERY – GIBBS EXECUTIVE AIRPORT
MASTER PLAN - PUBLIC MEETING

Comment Card

Date: 2/20/18

Name:

Organization/Affiliation (if applicable): Clairemont Town Council

Email Address:

Would you like to receive project updates? ☐ Yes ☐ No

Receive them as a Air. Master Plan Com. member

Please note that comments and corresponding contact information received will become part of the Meeting Summary Report and may be publicly available.

Do you wish to withhold your name and contact information from public review?

~~[X]~~ No [ ] Yes

Please Print Clearly – Use the other side of this form if additional space is needed.

~~One~~ Two major concerns that community members in the region of the airport have are noise and security. Regardless of which plan for the airport moves forward, residents would like to be reassured that noise and security surveillance is upgraded. Presently, the airport relies on verbal communications with the control tower to record the identification of aircraft taking off from the airport when the tower is not manned. Their is no way to accurately identify aircraft that do not self identify or incorrectly identify (e.g. wrong frequency) their aircraft. Going forward increasing monitoring by means of photographic evidence or electronic automated identification be included in the overall Master Plan process to allow for better identification and enforcement of noise violations and

Please submit completed comment cards at the meeting or via email to Wayne Reiter at WReiter@sandiego.gov.

capturing identification of planes utilizing the airport for security reasons. Community noise monitoring upgrades to ensure accurate noise impact on the surrounding communities.

MONTGOMERY – GIBBS EXECUTIVE AIRPORT
MASTER PLAN - PUBLIC MEETING

Comment Card

Date: 02/19/2018

Name: _____

Organization/Affiliation (if applicable): Resident of Tierrasanta

Email Address: _____

Would you like to receive project updates? ☒ Yes ☐ No

Please note that comments and corresponding contact information received will become part of the Meeting Summary Report and may be publicly available.

Do you wish to withhold your name and contact information from public review?

[ ] No [X] Yes

Please Print Clearly – Use the other side of this form if additional space is needed.

As you know well, our neighborhood in Tierrasanta continues to be plagued with increasing and unacceptable aircraft noise from private airplanes coming and going from Montgomery-Gibbs Airport. The increased routing of flights directly over residential communities and regional parklands, coupled with the combined noise and pollution of these very low-flying planes is completely unacceptable -- not to mention the other environmental impacts, which apparently have not even been considered, except in the areas within and immediately adjacent to the field. Also of concern are the safety issues, as one of your planes recently crashed into a residential house in Clairemont. Your expansion project will only exacerbate these legitimate concerns as air traffic volume increases.

Your committee, which I understand has been funded with over $500,000 from the FAA, is proposing a plan to enhance the Montgomery Gibbs airport with the goal of increased use by pilots of private planes and other aircraft, culminating in much more noise, pollution and safety issues in the future to the tax-paying residents of surrounding neighborhoods. Although your committee makes a pretense of soliciting public input, I have attended several of your meetings, and there is very little time, if any, allotted for public questions to be presented within the forum — or for responses to the legitimate concerns of surrounding area taxpayers and property owners. In fact, most of the meeting attendees are pilots of private aircraft who have a vested interest in the proposed plan with little regard for concerns of residents impacted by such a plan. This plan will only encourage more pilots to use the airport in the future creating more noise, pollution and environmental issues. Shouldn't we be looking for ways to make the airport better for residents, not pilots??

Please submit completed comment cards at the meeting or via email to Wayne Reiter at WReiter@sandiego.gov.

Appendix L

Airport Recycling, Reuse, and Waste Reduction Plan

Table of Contents

1.1 Airport Recycling, Reuse, and Waste Reduction Plan Background 1

1.2 Baseline Assessment 2

Facility Description 2
Existing Program, Waste Management Contract, and Operations and Maintenance Procedures 2
Waste Audit 5

1.3 Opportunities for Improvement and Potential for Cost Savings or Revenue Generation 9

1.4 Conclusion 11

Figures

Figure 1.1 – Breakdown of Recycling Stream
Figure 1.2 – Breakdown of Waste Stream

Tables

Table 1.1 – Weight and Composition of Recycling Stream
Table 1.2 – Weight and Composition of Trash Stream

1.1 Airport Recycling, Reuse, and Waste Reduction Plan Background

The management and disposal of solid waste have considerable impacts on an airport's finances, operations, environmental well-being, and relationship with the community. Its significance has been identified by the Federal Aviation Administration (FAA) and incorporated into recent regulations. Section 133 of the FAA Modernization and Reform Act of 2012 requires airports with a master plan to complete a recycling plan that includes/addresses:

- A solid waste audit
- Feasibility of solid waste recycling
- Minimization of solid waste generation
- Operation and maintenance requirements
- Review of waste management contracts
- The potential for cost savings or the generation of airport revenue

In order to assist airports in the development of these recycling programs, the FAA prepared *Recycling, Reuse, and Waste Reduction at Airports: A Synthesis Document*. This synthesis document outlines types and sources of airport waste and provides guidance on establishing a comprehensive waste reduction and recycling program. On September 30, 2014, the FAA issued *Guidance on Airport Recycling, Reuse, and Waste Reduction Plans*, which provides official guidance for preparing waste and recycling plans as part of an airport master plan, within a sustainability plan, or as a stand-alone document. This guidance has been used in the development of a recycling, reuse, and waste reduction plan for Montgomery-Gibbs Executive Airport (MYF or Airport).

As noted in *Guidance on Airport Recycling, Reuse, and Waste Reduction Plans*, airports with an existing recycling program may not need to complete certain tasks. Given the nature of the Airport as a General Aviation (GA) facility with an existing recycling program, certain elements were scaled accordingly (e.g., a detailed evaluation of potential cost savings or revenue generation was not prepared, but qualitative information is provided).

1.2 Baseline Assessment

Facility Description

As documented in prior sections of the Airport Master Plan, the Airport is a GA facility designated as a regional reliever airport according to the National Plan of Integrated Airport Systems (NPIAS). The Airport is one of 151 regional airports classified as a reliever to a primary airport, and one of only six regional relievers to have more than 400 based aircraft. As noted in Section 2 - *Forecasts of Aviation Demand*, MYF houses 604 based aircraft and experienced 200,668 operations for the year 2016. Additional information regarding the Airport's operations as well as its layout and governance can be found in earlier sections of the Master Plan.

Existing Program, Waste Management Contract, and Operations and Maintenance Procedures

As a GA airport, MYF has a number of waste sources including:[1]

- Terminal area that includes a restaurant. This area typically generates food waste, paper, plastic, aluminum cans, and trash.
- Airport administrative offices, which are within the terminal and produce waste including paper, food, plastic, metals, etc.
- Airfield and maintenance operations where aircraft, vehicle, and green waste is generated as well as packaging materials. Foreign object debris (FOD) is often generated on active airfields and can include runway rubber or miscellaneous materials from aircraft and vehicles.
- Tenant-occupied buildings including those on ground leases where various forms of waste are generated depending upon the type of activity conducted there.

The Airport is located within the City of San Diego and is influenced by City codes. In 2007, the City Council approved the City of San Diego's Recycling Ordinance requiring commercial and institutional facilities to recycle. The ordinance mandates that the following list of items be recycled:

- Plastic and glass bottles
- Jars
- Paper, newspaper
- Metal containers
- Cardboard
- Clean food waste containers
- Jugs, tubs, pots, buckets, and toys

In addition to the Recycling Ordinance, the City's Zero Waste Plan was unanimously approved by the City Council in 2015 with an initial target of 75-percent diversion of materials from landfills by 2020, 90 percent by 2035, and 100 percent by 2040. The City's Zero Waste Plan created a framework of strategies to increase the diversion rate as well as to expand on the goals of the Recycling Ordinance.

In compliance with the City's Recycling Ordinance and Zero Waste Plan, departments owned and operated by the City have implemented their own Waste Diversion Plans in order to maximize the amount of recycling at their facilities. The Airports fall within the Real Estate Assets Department

[1] Guidance for generators of waste and types of waste generated provided by FAA Recycling, Reuse and Waste Reduction at Airports: A Synthesis Document, April 24, 2013.

(READ), which is also responsible for its offices, Petco Park, and SDCCU Stadium. The current diversion practices for READ include:

- Dual recycling and trash bins placed in administrative offices
- Properly labelled three- to five-yard recycling bins placed next to trash dumpsters that are emptied once to twice a week
- Separation of airport trimmings from waste collection
- The special attention/handling for disposing of hazardous waste

The City currently contracts MYF's waste and recycling pickups with Republic Services. Trash pickups are scheduled on Mondays, Wednesdays, and Fridays with recycling collection occurring every second and fourth Thursday of the month – usually in the mornings. Waste generated by the restaurant is not included in this contract and is handled independently of the Airport.

There are three trash dumpsters and one recycling dumpster served by Republic Services, each three cubic yards in size. Although tenants are responsible for managing their own waste and many have established individual contracts, these dumpsters are available for their disposal. The dumpsters are distributed across the airport property at the Airport Operations Maintenance Garage, Gate 8, the cul-de-sac at Glenn Curtiss, the National Air College (NAC) (where there is another dumpster managed by NAC), and near the Operations terminal building. In addition, there is one 40-yard dumpster used for loose airport waste/debris. The 40-yard dumpster is serviced through the City on an as-needed basis at the request of the Airport. The following photo depicts the location of the 40-yard dumpster at the intersection of Gibbs Drive and Glenn Curtiss Road.



40-yard Dumpster Location

Source: City of San Diego and GoogleEarth

As of July 2017, Republic Services accepts the following in its single-stream recycling program (according to its website):



Allowable Materials

Source: Republic Services

Unacceptable items include:

- Aerosol cans
- Aluminum foil
- Batteries
- Food waste
- Glass (the City of San Diego confirmed that Republic is accepting glass recyclables for the airports)
- Mirrors or ceramics
- Stickers and address labels
- Styrofoam
- Tissue, paper towels or napkins
- Plastic-coated paper
- Wrapping paper
- Waxed paper
- Window glass
- Light bulbs
- Ceramics
- Plastics other than products coded #1 or #2 (this was extended to accommodate plastics #1-7)
- Cookware
- Hardcover books
- Polystyrene foam plastic (even if it has the recycling symbol [e.g., foam coffee cups])
- Plastic bags

Items requiring special attention include:

- Incandescent light bulbs
- Fluorescent tubes
- Computers & Electronics
- Needles or syringes
- Hazardous waste
- Toxic material containers
- Paint
- Yard waste

As noted on the Republic Services website, these items should never be mixed with regular recycling. Disposal requires special handling.

Waste Audit

As part of the master planning process for MYF, C&S Engineers, Inc., conducted a waste audit on October 12, 2017, focusing on waste collected in the three trash dumpsters and recycling dumpster. In preparation for the event, waste was collected from October 5, 2017, through October 11, 2017, along with approximately two weeks' worth of recyclables. Leading up to the audit, multiple bags of both trash and recyclables were collected and stored at the audit site within the Spiders Quonset Hut. Approximately 495 pounds of waste and recyclables were collected. Out of the 495 pounds, a sample of 269 pounds was audited; this included the entirety of the recyclables collected.

Waste and recyclables were divided into 13 categories, each classified as either recyclable, non-recyclable, requires special attention, or "Other" (i.e., material types that were not specifically addressed by Republic Services in its classification of materials). The 13 categories included:

Recyclable (indicated with a recycling symbol on all labels during the waste audit)

1. Aluminum beverage cans, food cans, pots, pans, tins, and utensils
2. Scrap metal
3. Paper (including newspaper, magazines, catalogs, brochures, envelopes, junk mail, phone books, and office paper)
4. Cardboard (including ream wrappers, file folders, poster board, frozen food boxes, cardboard boxes, and milk cartons)
5. Plastic beverage bottles, take-out containers, bagged film plastics
6. Recyclable glass bottles and jars

Non-Recyclable Materials

7. Food waste
8. Plastic bags, and paper products (e.g., paper towels, napkins, tissues, paper plates, paper cups)
9. Other miscellaneous non-recyclable items (e.g., aerosol cans, batteries, aluminum foil, shredded paper, stickers/address labels, clothing, glass windows, Pyrex, mirrors, and ceramic)

Requires Special Attention (must not be mixed with regular recycling)

10. Materials requiring special attention, including:
    i) Incandescent light bulbs, fluorescent tubes
    ii) Hazardous / toxic / of concern materials (e.g., needles or syringes, hazardous waste, toxic material containers, paint)

iii) Computers and electronics
iv) Yard waste

Additional Categories

11. Wood (e.g., boards, planks.)
12. Styrofoam Blocks (recyclable)
13. Rubber Tires



Waste Audit
Source: C&S Engineers, Inc.

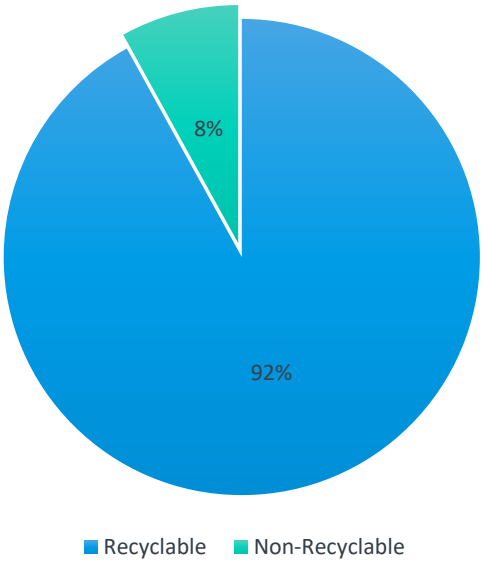
Materials were sorted by weight, beginning with the recycling stream and then followed by a sampling of the trash stream. **Table 1.1 and Figure 1.1** present the breakdown of contents within the recycling waste stream.

Table 1.1 – Weight and Composition of Recycling Stream

Category	Weight (pounds)
1 – Aluminum beverage cans, food cans, pots, pans, tins, and utensils	11.5
3 – Paper	12
4 - Cardboard	20.12
5 – Plastic beverage bottles, take-out containers, bagged film plastics	1.1
8 (non-recyclable) – Plastic bags, and paper products	0.8
9 (non-recyclable) – Other miscellaneous non-recyclable items	3.1

Source: C&S Engineers, Inc., 2017

Figure 1.1 – Breakdown of Recycling Stream



Source: C&S Engineers, Inc., 2017

As shown above, cardboard, paper, and aluminum beverage cans make up the majority of recyclables found in the recycling dumpster. The non-recyclable Category 9: shredded paper made up the highest non-recyclable content found at six percent. This may represent a lack of education to employees and tenants surrounding the non-recyclable nature of shredded paper. Overall, the Airport's recycling stream indicated a low percentage of contamination (i.e., non-recyclable materials in a recycling dumpster).

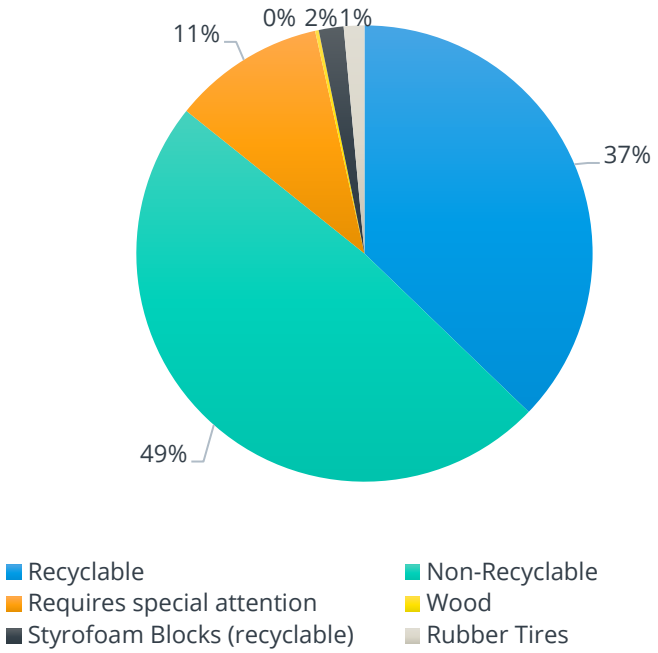
Table 1.2 and **Figure 1.2** present the percentage of contents in composition and quantity of trash sorted and recorded during the waste audit.

Table 1.2 – Weight and Composition of Trash Stream

Category	Weight (pounds)
1 – Aluminum beverage cans, food cans, pots, pans, tins and utensils	2.2
2 – Scrap metal	12.9
3 – Paper	10.5
4 – Cardboard	44.12
5 – Plastic beverage bottles, take-out containers, bagged film plastics	11.1
6 – Recyclable glass bottles and jars	5.9
7 (non-recyclable) – Food waste	13.13
8 (non-recyclable) – Plastic bags, and paper products	69.9
9 (non-recyclable) – Other miscellaneous non-recyclable items	30.1
10 – Requires special attention	25.12
11 – Wood (boards, planks, etc.)	0.6
12 – Styrofoam Blocks (recyclable)	4.1
13 – Rubber Tires	3.4

Source: C&S Engineers, Inc., 2017

Figure 1.2 – Breakdown of Waste Stream



Source: C&S Engineers, Inc., 2017

All categories, both recyclables and non-recyclables, were found in the trash dumpster. Non-recyclable items such as paper towels and other miscellaneous items (categories 8 and 9) made up the majority of the trash content. Cardboard boxes were found in both the trash and recycling dumpster and make up a large portion of waste at the Airport in general. One cause for recyclables found in the trash dumpster would be the limited access Airport staff, tenants, and hangars have to the recycling bin due to it being locked most of the time.

In order to determine an estimated diversion rate for the Airport, the amount of trash collected (over 446 pounds) was compared to the amount of recyclables collected (approximately 49 pounds). Based on this calculation, the current diversion rate is just **5.5 percent**. This rate includes the following considerations:

- Recyclables and trash were collected over different spans of time (trash covered seven days, from October 6 to October 11, while recyclables covered 13 days, from September 29 to October 11). Results were adjusted accordingly.
- This does not take into account the recyclables waste stream's contamination and instead assumes all recyclables collected were diverted from landfills.

It is worth noting that of the trash that was sorted during the audit, 37 percent consisted of recyclable materials accepted by Republic Services. This shows there is great opportunity for increasing the diversion rate and working towards the City's goals.

1.3 Opportunities for Improvement and Potential for Cost Savings or Revenue Generation

Based on the existing recycling ordinance and the efforts put forward by the department's Waste Diversion Plan, several opportunities for improvement are provided below, many of which have the potential for cost savings and/or revenue generation. Due to MYF's high waste production, the following suggestions focus on diversion from landfills and potential waste minimization.

Diversion from Landfills
The Airport should continue its focus on diversion of waste from landfills. Specific opportunities for improvement are listed below:

- **Increase Availability of Recycling Receptacles** – Although there are recycling bins available in offices, there are no labels indicating the materials accepted. Clearly labeled recycling bins should be placed adjacent to trash cans to encourage recycling; this is particularly important in areas near concessions (the restaurant or vending machines). The City should consider including trash receptacles only in centrally located areas to promote recycling whenever possible. In addition, it was noted that the recycling dumpster is currently locked, which can deter recycling by tenants. The City should reevaluate this decision and look into adding additional recycling dumpsters throughout the airport property since there is currently only one.
- **Expand Diversion Efforts via Additional Recycling Options** – The City should consider implementing a composting program at the Airport, potentially partnering with the restaurant for maximum potential. In addition, the City should review the materials collected in the trash stream for opportunities to generate revenue. For example, the rubber tires may have a resale potential. Lastly, Airport management should begin collecting shredded paper separately and work with the Environmental Services Department (ESD) for collection (in prior coordination with ESD, it was noted that they have a contract with Shred-It to handle such recycling).
- **Surplus Property Donation** – Airport management should take advantage of the City's surplus property and internal redistribution program, whereby obsolete furniture and other materials can be listed on a city-wide intranet system (i.e., a program similar to Craigslist).
- **Expand upon Education and Awareness Efforts** – The department's Waste Diversion Plan has already made progress in this area. READ and the City overall should continue to emphasize education and awareness regarding both waste minimization and recycling. Some potential strategies to consider based on other airports' initiatives include:
    - Circulate an educational piece and post signage on what is and is not acceptable in the recycling stream. An emphasis should be placed on shredded paper, which many are disposing of in the recycling dumpster. Employees should be encouraged to minimize shredding unless absolutely necessary due to confidentiality concerns (see related item above).
    - Provide Training for Airport Employees – Develop consistent language and materials to train employees on the recycling program procedures to minimize errors and contamination between trash and recycling. Include this in any new employee orientation or onboarding.
    - Implement an Awards Program – Some airports have established tenant and/or employee awards programs to incentivize involvement in recycling. This could be as simple as conducting random walk-throughs of the terminals, administrative areas, etc., and distributing certificates or gift cards to any businesses/employees who are observed recycling or taking action to reuse/reduce materials like packaging.

- **Reuse Materials** – The Airport should continue to leave grass mowings in place and identify other potential waste streams generated through maintenance activities with potential for reuse/salvaging.
- **Establish Minimum Construction & Demolition (C&D) Recycling Target** – Many airports have established targets that must be met by their contractors, for example, 75 percent of C&D materials must be diverted from landfills via recycling, reuse, or repurposing. The Airport Authority could also require that the contractors track and report on the diversion efforts as well as where the materials are being transported to and/or how they are being reused/repurposed.
- **Promote Recycling on Airport Property** – Tenants and hangars with access to the various dumpsters should be made aware of the Airport's waste and recycling goals.
- **Require Recycling on Airport Property** – An airport's Rules and Regulations, which apply to all tenants and users of the facility, are an opportunity to require recycling. For example, the following language could be included: "All tenants and subtenants shall recycle acceptable materials in accordance with the City of San Diego Recycling Ordinance." The Airport does not currently have published Rules and Regulations but may consider this in the future.

Waste Minimization

The Airport should consider the following efforts aimed at reducing waste, which can contribute to a higher diversion rate:

- Assess materials procurement and identify opportunities for bulk purchasing to reduce packaging materials and cardboard. The City has an Environmentally Preferred Purchasing (EPP) policy in place (Administrative Regulation 35.80) but it is unknown if all Airport staff are aware of and following its guidelines. (A detailed analysis of current procurement methods was not conducted.) The current policy includes the following, which would contribute greatly to waste minimization if not already incorporated at the Airport:
    - Prohibits purchasing of bottled water (without a waiver) and expanded polystyrene foam food service ware.
    - Specifies 12 criteria, many of which promote waste minimization/recycling, that should be considered when making purchasing decisions including:
        - Biodegradable
        - Compostable
        - High-recycled Content
        - Recyclable
        - Repairable
        - Reusable
- Require concessionaires and airport businesses to adhere to the City's EPP policy (currently, there is one restaurant, but this measure could be included in future Rules and Regulations).

Waste minimization efforts can potentially reduce costs incurred by the City. For example, reducing the amount of materials disposed of in the 40-yard dumpster will decrease the frequency of required pick-ups, which occur on an as-needed basis.

1.4 Conclusion

The Airport has shown great initiative by implementing the practices set forth by the department's Waste Diversion Plan such as having recycling bins located next to trash bins in administrative offices and in the terminal building. Recycling efforts can be improved by unlocking the recycling dumpster and allowing tenants and hangars to access the bin as easily as their access to the trash dumpsters. Additionally, through improved signage, and enhanced employee awareness MYF can significantly increase their diversion rate. By implementing these initiatives, the Airport would be assisting the City with their overall recycling goals as well as maintaining the Zero Waste Plan targets.

Appendix M

Economic Impact Analysis Tables

Table M.1 – Detailed Secondary (Indirect and Induced) Multiplier Effects for Airport Operations

NAICS Code	Description	Secondary Jobs	Secondary Output	Secondary Income
	Total	65.0	$9,279,689	$3,825,911
111	**Crop Production**	0.1	$5,099	$2,339
112	**Animal Production and Aquaculture**	0.0	$1,149	$269
113	**Forestry and Logging**	0.0	$4	$0
114	**Fishing, Hunting and Trapping**	0.0	$101	$50
115	**Support Activities for Agriculture and Forestry**	0.0	$780	$538
211	**Oil and Gas Extraction**	0.0	$6,176	$912
212	**Mining (except Oil and Gas)**	0.0	$2,735	$439
213	**Support Activities for Mining**	0.2	$17,722	$6,001
221	**Utilities**	0.1	$56,892	$11,520
23	**Construction**	2.0	$338,552	$119,858
311	**Food Manufacturing**	0.0	$10,577	$1,727
312	**Beverage and Tobacco Product Manufacturing**	0.0	$21,450	$2,743
313	**Textile Mills**	0.0	$31	$4
314	**Textile Product Mills**	0.0	$209	$53
315	**Apparel Manufacturing**	0.0	$1,237	$471
316	**Leather and Allied Product Manufacturing**	0.0	$7	$2
321	**Wood Product Manufacturing**	0.0	$1,555	$455
322	**Paper Manufacturing**	0.0	$2,808	$522
323	**Printing and Related Support Activities**	0.1	$9,423	$2,627
324	**Petroleum and Coal Products Manufacturing**	0.0	$8,530	$410
325	**Chemical Manufacturing**	0.0	$45,936	$5,673
326	**Plastics and Rubber Products Manufacturing**	0.0	$2,652	$543
327	**Nonmetallic Mineral Product Manufacturing**	0.0	$7,083	$1,508
331	**Primary Metal Manufacturing**	0.0	$318	$39
332	**Fabricated Metal Product Manufacturing**	0.0	$6,040	$1,788
333	**Machinery Manufacturing**	0.0	$8,181	$1,477
334	**Computer and Electronic Product Manufacturing**	0.0	$9,955	$2,608
335	**Electrical Equipment, Appliance, and Component Manufacturing**	0.0	$2,366	$347
336	**Transportation Equipment Manufacturing**	0.1	$19,779	$5,831
337	**Furniture and Related Product Manufacturing**	0.0	$618	$175
339	**Miscellaneous Manufacturing**	0.0	$5,795	$1,780
42	**Wholesale Trade**	1.4	$372,644	$124,854
441	**Motor Vehicle and Parts Dealers**	0.4	$55,582	$26,745
442	**Furniture and Home Furnishings Stores**	0.2	$18,033	$7,046
443	**Electronics and Appliance Stores**	0.1	$10,962	$10,276
444	**Building Material and Garden Equipment and Supplies Dealers**	0.4	$36,846	$14,714
445	**Food and Beverage Stores**	0.9	$69,762	$32,153
446	**Health and Personal Care Stores**	0.3	$32,837	$16,106
447	**Gasoline Stations**	0.2	$20,348	$12,980
448	**Clothing and Clothing Accessories Stores**	0.5	$42,552	$13,073
451	**Sporting Goods, Hobby, Musical Instrument, and Book Stores**	0.2	$13,917	$6,242
452	**General Merchandise Stores**	0.9	$75,955	$29,298
453	**Miscellaneous Store Retailers**	0.5	$20,913	$11,193
454	**Nonstore Retailers**	0.5	$69,920	$13,723

NAICS Code	Description	Secondary Jobs	Secondary Output	Secondary Income
481	Air Transportation	0.1	$26,944	$4,726
482	Rail Transportation	0.0	$1,504	$559
483	Water Transportation	0.0	$482	$48
484	Truck Transportation	0.4	$59,684	$18,633
485	Transit and Ground Passenger Transportation	0.2	$16,236	$8,003
486	Pipeline Transportation	0.0	$404	$196
487-488	Transportation Support Services and Sightseeing	2.4	$389,758	$153,822
492	Couriers and Messengers	3.3	$359,251	$124,925
493	Warehousing and Storage	0.5	$45,745	$19,397
511	Publishing Industries (except Internet)	0.2	$61,454	$18,261
512	Motion Picture and Sound Recording Industries	0.1	$13,031	$2,122
515	Broadcasting (except Internet)	0.1	$41,261	$15,617
517	Telecommunications	0.3	$248,968	$27,698
518	Data Processing, Hosting, and Related Services	0.1	$23,872	$8,239
519	Other Information Services	0.0	$26,135	$5,019
521	Monetary Authorities-Central Bank	0.3	$128,529	$31,581
522	Credit Intermediation and Related Activities	0.4	$62,799	$29,785
523	Securities, Commodity Contracts, and Other Financial Investments and Related Activities	1.1	$160,687	$50,126
524	Insurance Carriers and Related Activities	1.0	$266,299	$75,017
525	Funds, Trusts, and Other Financial Vehicles	0.2	$65,024	$13,738
531	Real Estate	2.0	$1,039,618	$80,770
532	Rental and Leasing Services	0.5	$105,710	$41,078
533	Lessors of Nonfinancial Intangible Assets	0.0	$20,292	$688
541	Professional, Scientific, and Technical Services	5.7	$863,216	$464,496
551	Management of Companies and Enterprises	0.6	$146,311	$75,583
561	Administrative and Support Services	7.7	$463,518	$270,801
562	Waste Management and Remediation Services	0.4	$93,771	$29,032
611	Educational Services	1.3	$89,714	$53,172
621	Ambulatory Health Care Services	2.6	$307,577	$197,422
622	Hospitals	0.7	$118,108	$63,497
623	Nursing and Residential Care Facilities	0.8	$53,691	$32,878
624	Social Assistance	1.5	$60,637	$34,091
711	Performing Arts, Spectator Sports, and Related Industries	0.6	$45,618	$18,905
712	Museums, Historical Sites, and Similar Institutions	0.1	$4,811	$2,551
713	Amusement, Gambling, and Recreation Industries	0.6	$50,472	$17,490
721	Accommodation	0.0	$4,940	$1,792
722	Food Services and Drinking Places	4.5	$281,620	$115,991
811	Repair and Maintenance	1.3	$149,164	$79,829
812	Personal and Laundry Services	1.7	$70,363	$51,804
813	Religious, Grantmaking, Civic, Professional, and Similar Organizations	1.1	$167,638	$54,268
814	Private Households	0.5	$8,065	$8,063
92	Government and Other	10.8	$1,702,743	$1,033,087

Source: ADE, Inc.; data from IMPLAN Pro input-output model, InfoUSA/Salesgenie, and City of San Diego Airports Division.

Table M.2 – Detailed Secondary (Indirect and Induced) Multiplier Effects for Airport Tenants

NAICS Code	Description	Secondary Jobs	Secondary Output	Secondary Income
	Total	585.1	$86,104,950	$33,398,951
111	**Crop Production**	0.8	$55,769	$25,564
112	**Animal Production and Aquaculture**	0.1	$11,550	$2,476
113	**Forestry and Logging**	0.0	$41	$1
114	**Fishing, Hunting and Trapping**	0.1	$3,177	$1,577
115	**Support Activities for Agriculture and Forestry**	0.1	$8,696	$5,989
211	**Oil and Gas Extraction**	0.3	$43,132	$6,290
212	**Mining (except Oil and Gas)**	0.1	$19,636	$3,513
213	**Support Activities for Mining**	0.5	$60,876	$20,325
221	**Utilities**	0.5	$417,789	$83,156
23	**Construction**	14.1	$2,461,557	$858,695
311	**Food Manufacturing**	0.5	$137,652	$22,968
312	**Beverage and Tobacco Product Manufacturing**	0.3	$260,399	$33,280
313	**Textile Mills**	0.0	$352	$44
314	**Textile Product Mills**	0.0	$2,296	$559
315	**Apparel Manufacturing**	0.0	$1,869	$674
316	**Leather and Allied Product Manufacturing**	0.0	$64	$16
321	**Wood Product Manufacturing**	0.1	$16,746	$5,007
322	**Paper Manufacturing**	0.1	$33,402	$6,369
323	**Printing and Related Support Activities**	1.1	$168,138	$46,828
324	**Petroleum and Coal Products Manufacturing**	0.0	$66,756	$3,191
325	**Chemical Manufacturing**	0.2	$358,653	$44,900
326	**Plastics and Rubber Products Manufacturing**	0.1	$26,522	$5,512
327	**Nonmetallic Mineral Product Manufacturing**	0.2	$63,030	$13,420
331	**Primary Metal Manufacturing**	0.0	$8,078	$1,002
332	**Fabricated Metal Product Manufacturing**	0.2	$45,461	$12,571
333	**Machinery Manufacturing**	0.1	$34,633	$6,656
334	**Computer and Electronic Product Manufacturing**	0.3	$163,670	$45,089
335	**Electrical Equipment, Appliance, and Component Manufacturing**	0.1	$30,639	$4,726
336	**Transportation Equipment Manufacturing**	0.9	$327,293	$94,037
337	**Furniture and Related Product Manufacturing**	0.0	$6,267	$1,809
339	**Miscellaneous Manufacturing**	0.4	$68,783	$22,566
42	**Wholesale Trade**	13.3	$3,494,248	$1,173,301
441	**Motor Vehicle and Parts Dealers**	4.4	$588,670	$283,411
442	**Furniture and Home Furnishings Stores**	1.7	$196,879	$77,190
443	**Electronics and Appliance Stores**	1.4	$119,297	$112,201
444	**Building Material and Garden Equipment and Supplies Dealers**	3.8	$398,014	$159,481
445	**Food and Beverage Stores**	9.9	$746,993	$345,894
446	**Health and Personal Care Stores**	3.7	$355,415	$174,914
447	**Gasoline Stations**	1.8	$157,696	$100,931
448	**Clothing and Clothing Accessories Stores**	5.4	$463,334	$142,826
451	**Sporting Goods, Hobby, Musical Instrument, and Book Stores**	2.4	$150,806	$67,874
452	**General Merchandise Stores**	10.1	$827,269	$321,480
453	**Miscellaneous Store Retailers**	5.4	$228,571	$122,749

NAICS Code	Description	Secondary Jobs	Secondary Output	Secondary Income
454	Nonstore Retailers	5.8	$751,007	$147,890
481	Air Transportation	0.6	$244,708	$42,740
482	Rail Transportation	0.0	$15,531	$5,757
483	Water Transportation	0.0	$4,808	$473
484	Truck Transportation	3.2	$499,746	$156,034
485	Transit and Ground Passenger Transportation	2.3	$201,955	$99,407
486	Pipeline Transportation	0.0	$2,742	$1,325
487-488	Transportation Support Services and Sightseeing	9.0	$1,474,506	$580,231
492	Couriers and Messengers	12.2	$1,358,772	$470,878
493	Warehousing and Storage	2.4	$230,407	$97,204
511	Publishing Industries (except Internet)	2.5	$836,740	$247,670
512	Motion Picture and Sound Recording Industries	1.3	$261,953	$41,738
515	Broadcasting (except Internet)	1.9	$951,470	$352,604
517	Telecommunications	3.8	$3,049,402	$342,572
518	Data Processing, Hosting, and Related Services	1.1	$325,231	$112,380
519	Other Information Services	1.0	$526,362	$104,432
521	Monetary Authorities-Central Bank	4.2	$1,548,290	$381,768
522	Credit Intermediation and Related Activities	5.2	$905,623	$431,036
523	Securities, Commodity Contracts, and Other Financial Investments and Related Activities	12.9	$1,848,683	$593,155
524	Insurance Carriers and Related Activities	12.6	$3,086,411	$907,250
525	Funds, Trusts, and Other Financial Vehicles	2.6	$702,297	$148,292
531	Real Estate	26.9	$12,527,509	$1,096,663
532	Rental and Leasing Services	3.1	$657,231	$252,530
533	Lessors of Nonfinancial Intangible Assets (except Copyrighted Works)	0.3	$302,254	$10,234
541	Professional, Scientific, and Technical Services	50.7	$7,144,085	$3,679,848
551	Management of Companies and Enterprises	9.3	$2,227,188	$1,149,771
561	Administrative and Support Services	54.1	$3,612,705	$2,079,173
562	Waste Management and Remediation Services	2.3	$516,125	$159,707
611	Educational Services	13.6	$961,110	$566,969
621	Ambulatory Health Care Services	27.8	$3,289,146	$2,115,767
622	Hospitals	7.4	$1,258,092	$679,247
623	Nursing and Residential Care Facilities	9.0	$577,075	$354,502
624	Social Assistance	16.2	$642,798	$364,375
711	Performing Arts, Spectator Sports, and Related Industries	9.5	$688,775	$299,578
712	Museums, Historical Sites, and Similar Institutions	0.6	$50,752	$27,266
713	Amusement, Gambling, and Recreation Industries	7.6	$583,790	$206,231
721	Accommodation	0.6	$63,373	$22,957
722	Food Services and Drinking Places	54.1	$3,358,860	$1,426,603
811	Repair and Maintenance	11.7	$1,302,888	$712,179
812	Personal and Laundry Services	16.8	$673,894	$519,586
813	Religious, Grantmaking, Civic, Professional, and Similar Organizations	11.5	$1,793,430	$580,575
814	Private Households	5.0	$86,128	$86,081
92	Government and Other	77.8	$12,330,980	$7,283,210

Source: ADE, Inc.; data from IMPLAN Pro input-output model, InfoUSA/Salesgenie, and City of San Diego Airports Division.

Table M.3 – Combined Detailed Secondary (Indirect and Induced) Multiplier Effects for Airport Operations and Tenants

NAICS Code	Description	Secondary Jobs	Secondary Output	Secondary Income
	Total	650.2	$95,384,639	$37,224,862
111	**Crop Production**	0.9	$60,868	$27,903
112	**Animal Production and Aquaculture**	0.1	$12,699	$2,745
113	**Forestry and Logging**	0.0	$45	$1
114	**Fishing, Hunting and Trapping**	0.1	$3,279	$1,627
115	**Support Activities for Agriculture and Forestry**	0.1	$9,475	$6,526
211	**Oil and Gas Extraction**	0.3	$49,307	$7,201
212	**Mining (except Oil and Gas)**	0.1	$22,371	$3,952
213	**Support Activities for Mining**	0.7	$78,597	$26,326
221	**Utilities**	0.6	$474,680	$94,675
23	**Construction**	16.1	$2,800,108	$978,554
311	**Food Manufacturing**	0.5	$148,229	$24,694
312	**Beverage and Tobacco Product Manufacturing**	0.3	$281,849	$36,023
313	**Textile Mills**	0.0	$382	$48
314	**Textile Product Mills**	0.0	$2,504	$612
315	**Apparel Manufacturing**	0.0	$3,106	$1,145
316	**Leather and Allied Product Manufacturing**	0.0	$72	$17
321	**Wood Product Manufacturing**	0.1	$18,301	$5,462
322	**Paper Manufacturing**	0.1	$36,210	$6,891
323	**Printing and Related Support Activities**	1.2	$177,561	$49,455
324	**Petroleum and Coal Products Manufacturing**	0.0	$75,286	$3,601
325	**Chemical Manufacturing**	0.3	$404,588	$50,573
326	**Plastics and Rubber Products Manufacturing**	0.1	$29,174	$6,055
327	**Nonmetallic Mineral Product Manufacturing**	0.2	$70,114	$14,928
331	**Primary Metal Manufacturing**	0.0	$8,396	$1,042
332	**Fabricated Metal Product Manufacturing**	0.2	$51,501	$14,358
333	**Machinery Manufacturing**	0.1	$42,813	$8,133
334	**Computer and Electronic Product Manufacturing**	0.3	$173,625	$47,697
335	**Electrical Equipment, Appliance, and Component Manufacturing**	0.1	$33,006	$5,073
336	**Transportation Equipment Manufacturing**	1.0	$347,072	$99,868
337	**Furniture and Related Product Manufacturing**	0.0	$6,886	$1,984
339	**Miscellaneous Manufacturing**	0.4	$74,578	$24,346
42	**Wholesale Trade**	14.7	$3,866,892	$1,298,155
441	**Motor Vehicle and Parts Dealers**	4.8	$644,252	$310,156
442	**Furniture and Home Furnishings Stores**	1.9	$214,911	$84,237
443	**Electronics and Appliance Stores**	1.5	$130,259	$122,477
444	**Building Material and Garden Equipment and Supplies Dealers**	4.1	$434,859	$174,196
445	**Food and Beverage Stores**	10.8	$816,755	$378,048
446	**Health and Personal Care Stores**	4.0	$388,252	$191,021
447	**Gasoline Stations**	2.0	$178,043	$113,911
448	**Clothing and Clothing Accessories Stores**	5.9	$505,885	$155,899

NAICS Code	Description	Secondary Jobs	Secondary Output	Secondary Income
451	Sporting Goods, Hobby, Musical Instrument, and Book Stores	2.6	$164,722	$74,116
452	General Merchandise Stores	11.0	$903,224	$350,778
453	Miscellaneous Store Retailers	5.9	$249,484	$133,942
454	Nonstore Retailers	6.3	$820,927	$161,613
481	Air Transportation	0.7	$271,652	$47,465
482	Rail Transportation	0.0	$17,035	$6,316
483	Water Transportation	0.0	$5,290	$521
484	Truck Transportation	3.6	$559,430	$174,668
485	Transit and Ground Passenger Transportation	2.5	$218,191	$107,410
486	Pipeline Transportation	0.0	$3,146	$1,521
487-488	Transportation Support Services and Sightseeing	11.4	$1,864,264	$734,053
492	Couriers and Messengers	15.5	$1,718,023	$595,802
493	Warehousing and Storage	2.9	$276,152	$116,602
511	Publishing Industries (except Internet)	2.6	$898,194	$265,932
512	Motion Picture and Sound Recording Industries	1.3	$274,985	$43,860
515	Broadcasting (except Internet)	2.0	$992,731	$368,221
517	Telecommunications	4.1	$3,298,370	$370,271
518	Data Processing, Hosting, and Related Services	1.2	$349,104	$120,619
519	Other Information Services	1.1	$552,498	$109,451
521	Monetary Authorities-Central Bank	4.6	$1,676,818	$413,349
522	Credit Intermediation and Related Activities	5.6	$968,422	$460,821
523	Securities, Commodity Contracts, and Other Financial Investments and Related Activities	14.0	$2,009,370	$643,282
524	Insurance Carriers and Related Activities	13.6	$3,352,710	$982,266
525	Funds, Trusts, and Other Financial Vehicles	2.9	$767,321	$162,030
531	Real Estate	28.9	$13,567,128	$1,177,433
532	Rental and Leasing Services	3.6	$762,941	$293,609
533	Lessors of Nonfinancial Intangible Assets	0.3	$322,546	$10,922
541	Professional, Scientific, and Technical Services	56.4	$8,007,300	$4,144,344
551	Management of Companies and Enterprises	9.9	$2,373,498	$1,225,353
561	Administrative and Support Services	61.8	$4,076,223	$2,349,974
562	Waste Management and Remediation Services	2.8	$609,896	$188,739
611	Educational Services	14.8	$1,050,824	$620,141
621	Ambulatory Health Care Services	30.5	$3,596,724	$2,313,189
622	Hospitals	8.1	$1,376,200	$742,744
623	Nursing and Residential Care Facilities	9.9	$630,765	$387,380
624	Social Assistance	17.7	$703,435	$398,466
711	Performing Arts, Spectator Sports, and Related Industries	10.1	$734,393	$318,483
712	Museums, Historical Sites, and Similar Institutions	0.6	$55,562	$29,817
713	Amusement, Gambling, and Recreation Industries	8.2	$634,262	$223,721
721	Accommodation	0.6	$68,313	$24,749
722	Food Services and Drinking Places	58.6	$3,640,480	$1,542,594
811	Repair and Maintenance	13.0	$1,452,053	$792,008
812	Personal and Laundry Services	18.5	$744,257	$571,390

NAICS Code	Description	Secondary Jobs	Secondary Output	Secondary Income
813	**Religious, Grantmaking, Civic, Professional, and Similar Organizations**	12.6	$1,961,068	$634,842
814	**Private Households**	5.4	$94,193	$94,144
92	**Government and Other**	88.6	$14,033,723	$8,316,297

Source: ADE, Inc.; data from IMPLAN Pro input-output model, InfoUSA/Salesgenie, and City of San Diego Airports Division

Appendix N

Airport Layout Plan (ALP)

DRAWING LIST

REVISION DATE	SHEET NO.	DRAWING TITLE
	1.	TITLE SHEET
	2.	DATA SHEET
	3.	EXISTING AIRPORT LAYOUT PLAN
	4.	FUTURE AIRPORT LAYOUT PLAN
	5.	AIRPORT AIRSPACE DRAWING
	6.	AIRPORT AIRSPACE DRAWING CONTINUED
	7.	RUNWAY 28R INNER APPROACH: PLAN & PROFILE
	8.	RUNWAY 10L INNER APPROACH: PLAN & PROFILE AND DATA
	9.	RUNWAY 10R-28L INNER APPROACH: PLAN & PROFILE
	10.	RUNWAY 5-23 INNER APPROACH: PLAN & PROFILE
	11.	LAND USE DRAWING
	12.	EXHIBIT A - AIRPORT PROPERTY INVENTORY MAP

AIRPORT LAYOUT PLAN UPDATE
MONTGOMERY-GIBBS EXECUTIVE AIRPORT

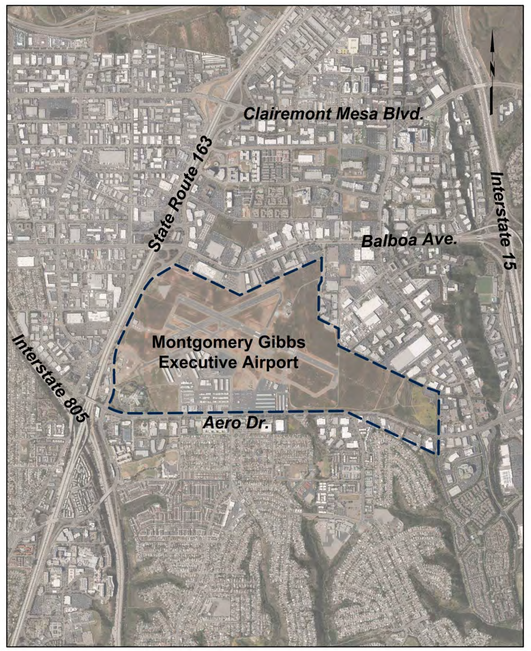
CITY OF SAN DIEGO, CALIFORNIA



STATE MAP
NOT TO SCALE



LOCATION MAP
NOT TO SCALE



VICINITY MAP
SCALE: 1"=2000'

The City of SAN DIEGO

FAA AIP NO.: 3-06-0211-017-2016

C&S PROJECT: Q74.001.001

OCTOBER 2019

CITY OF SAN DIEGO
SUBMITTED BY _____
TITLE DEPUTY DIRECTOR - AIRPORTS
DATE 30 OCT 19

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Oct 09, 2019 - 8:37am
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RUNWAY DATA TABLE

RUNWAY DATA	RUNWAY 10L/28R				RUNWAY 10R /28L (UTILITY)				RUNWAY 5/23 (UTILITY)			
	EXISTING		ULTIMATE		EXISTING		ULTIMATE		EXISTING		ULTIMATE	
Runway Identification	10L	28R	10L	28R	10R	28L	10R	28L	5	23	5	23
Runway Design Code (RDC)	B-II-VIS	B-II-2400	B-II-4000	Same	B-I(S)-VIS	B-I(S)-VIS	Same	Same	B-I(S)-VIS	B-I(S)-VIS	Same	Same
Approach Runway Reference Code (APRC)	D-IV-5000	D-VI-2400	D-VI-4000	Same	B-II-VIS	B-II-VIS	Same	Same	B-III-VIS	B-III-VIS	Same	Same
Departure Runway Reference Code (DPRC)	D-VI	D-VI	Same	Same	B-II	B-II	Same	Same	B-III / D-II	B-III / D-II	Same	Same
Critical Aircraft	Beechcraft King Air 350 (B-II)		Same		Cessna 421 Golden Eagle (B-IS)		Same		Cessna 421 Golden Eagle (B-IS)		Same	
PAVEMENT STRENGTH & MATERIAL TYPE												
Pavement Surface Type	Asphalt		Same		Asphalt		Same		Asphalt		Same	
Single Wheel	90,000		Same		109,000		Same		120,000		Same	
Dual Wheel	123,000		Same		154,000		Same		214,000		Same	
Dual Tandem	N/A		Same		N/A		Same		N/A		Same	
PCN	35/F/C/Y/T		N/A		43/F/C/Y/T		N/A		55/F/B/Y/T		N/A	
Pavement Surface Treatment	Rubberized Friction Seal Coat		Same		Rubberized Friction Seal Coat		Same		Rubberized Friction Seal Coat		Same	
Effective Gradient (%)	0.29%		Same		0.21%		Same		0.28%		0.29%	
Percent Wind Coverage	99.35% All Weather (13 knots)		N/A		98.65% All Weather (10.5 knots)		N/A		98.42% All Weather (10.5 knots)		N/A	
Runway Length	4,598		Same		3,401		Same		3,400		3,010	
Runway Width (Actual / Standard)	(150 / 100)		100		(60 / 60)		Same		(75 / 60)		60	
RUNWAY END COORDINATES (NAD 83)												
Latitude	32° 49' 05.40" N	32° 48' 46.18" N	Same	Same	32° 49' 00.92" N	32° 48' 46.70" N	Same	Same	32° 48' 53.48" N	32° 49' 07.70" N	32° 48' 55.12" N	Same
Longitude	117° 08' 40.86" W	117° 07' 52.03" W	Same	Same	117° 08' 43.34" W	117° 08' 07.22" W	Same	Same	117° 08' 45.63" W	117° 08' 09.53" W	117° 08' 41.49" W	Same
Runway End Elevation (NAVD 88)	414.15	427.34	Same	Same	414.00	421.20	Same	Same	415.79	425.41	416.8	Same
Runway Lighting	MIRL		Same	Same	None		MIRL		None		Same	
DISPLACED THRESHOLD COORDINATES (NAD 83)												
Displaced Threshold (From Rwy End)	N/A	1199.3	Same	N/A	N/A	N/A	Same	Same	390.0	N/A	N/A	Same
Latitude	N/A	32° 48' 51.19" N	Same	N/A	N/A	N/A	Same	Same	32° 48' 55.12" N	N/A	N/A	Same
Longitude	N/A	117° 08' 04.76" W	Same	N/A	N/A	N/A	Same	Same	117° 08' 41.49" W	N/A	N/A	Same
Displaced Threshold Elevation (NAVD 88)	N/A	421.7	Same	N/A	N/A	N/A	Same	Same	416.8	N/A	N/A	Same
RUNWAY SAFETY AREA (RSA)												
Length Beyond Runway	600		Same		240		Same		240		Same	
Length Prior to Threshold	600		Same		240		Same		240		Same	
Width	300		Same		120		Same		120		Same	
APPROACH RUNWAY PROTECTION ZONE (RPZ)												
Length	1,000	2,500	1,700	Same	1,000	1,000	Same	Same	1,000	1,000	Same	Same
Inner Width	500	1,000	1,000	Same	250	250	Same	Same	250	250	Same	Same
Outer Width	700	1,750	1,510	Same	450	450	Same	Same	450	450	Same	Same
DEPARTURE RUNWAY PROTECTION ZONE (RPZ)												
Length	1,000	1,000	Same	Same	1,000	1,000	Same	Same	1,000	1,000	Same	Same
Inner Width	500	500	Same	Same	250	250	Same	Same	250	250	Same	Same
Outer Width	700	700	Same	Same	450	450	Same	Same	450	450	Same	Same
Runway Marking	Visual	Precision	Non-Precision	Same	Visual	Visual	Same	Same	Visual	Visual	Same	Same
FAR PART 77												
Approach Category	B(V)	PIR	D	Same	A(V)	A(V)	Same	Same	A(V)	A(V)	Same	Same
Approach Slope	20:1	50:1	34:1	Same	20:1	20:1	Same	Same	20:1	20:1	Same	Same
Approach Type	Visual	Precision	Non-Precision	Same	Visual	Visual	Same	Same	Visual	Visual	Same	Same
Visibility Minimums (RVR)	5000 (circling)	2400	4000	Same	5000 (circling)	5000 (circling)	Same	Same	5000 (circling)	5000 (circling)	Same	Same
Type of Aeronautical Survey Required	NVGS	VGS	VGS	Same	NVGS	NVGS	Same	Same	NVGS	NVGS	Same	Same
RUNWAY OBJECT FREE AREA (ROFA)												
Length Beyond Runway End	600		Same		240		Same		240		Same	
Length Prior to Threshold	600		Same		240		Same		240		Same	
Width	800		Same		250		Same		250		Same	
RUNWAY OBSTACLE FREE ZONE (ROFZ)												
Length Beyond Runway	200		Same		200		Same		200		Same	
Width	400		Same		250		Same		250		Same	
PRECISION OBSTACLE FREE ZONE (POFZ)												
Length Beyond Runway	N/A	200	Same	Same	N/A	N/A	Same	Same	N/A	N/A	Same	Same
Width	N/A	800	Same	Same	N/A	N/A	Same	Same	N/A	N/A	Same	Same
INNER-APPROACH OBSTACLE FREE ZONE (IA-OFZ)												
Length Beyond ROFZ	N/A	2,410	Same	2,400	N/A	N/A	Same	Same	N/A	N/A	Same	Same
Width	N/A	300	Same	Same	N/A	N/A	Same	Same	N/A	N/A	Same	Same
INNER-TRANSITIONAL OBSTACLE FREE ZONE (IT-OFZ)												
Length Beyond Runway (ft)	N/A	1231	Same	Same	N/A	N/A	Same	Same	N/A	N/A	Same	Same
Width (Start, ft)	N/A	400	Same	Same	N/A	N/A	Same	Same	N/A	N/A	Same	Same
Width (End, ft)	N/A	2200	Same	Same	N/A	N/A	Same	Same	N/A	N/A	Same	Same
RUNWAY END SITING SURFACES (THRESHOLD SITING SURFACES)												
Approach Surface	Type 3 (20:1)	Type 5 (34:1)	Type 4 (20:1)	Same	Type 2 (20:1)	Type 2 (20:1)	Same	Same	Type 2 (20:1)	Type 2 (20:1)	Same	Same
Departure Surface	Yes (40:1)	Yes (40:1)	Same	Same	Yes (40:1)	Yes (40:1)	Same	Same	N/A	Yes (40:1)	Same	Same
Penetrations	None	None	Same	Same	None	None	Same	Same	None	None	Same	Same
Visual NAVAIDS	4-Light PAPI	MALSR, 4-Light PAPI, ILS	Same	Same	None	REIL	Same	Same	None		Same	
Runway Touchdown Zone Elevation (NAVD 88)	422.2	421.7	Same	427.3	420.4	421.2	Same	Same	424.1	425.4	425.3	Same
Vertical Datum	NAVD (88)		Same		NAVD (88)		Same		NAVD (88)		Same	
Horizontal Datum	NAD (83)		Same		NAD (83)		Same		NAD (83)		Same	

ABBREVIATIONS

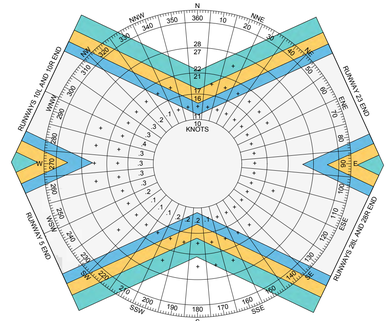
ALS	APPROACH LIGHT SYSTEM
ARP	AIRPORT REFERENCE POINT
ASDA	ACCELERATE STOP DISTANCE AVAILABLE
ASOS	AUTOMATED SURFACE OBSERVING SYSTEM
BRL	BUILDING RESTRICTION LINE
DME	DISTANCE MEASURING EQUIPMENT
ELEV	ELEVATION
FBO	FIXED-BASE OPERATOR
FUT	FUTURE
GQS	GLIDE PATH QUALIFICATION SURFACE
LAT	LATITUDE
LDA	LANDING DISTANCE AVAILABLE
LOC	LOCALIZER
LONG	LONGITUDE
MALSR	MEDIUM INTENSITY ALS WITH RW ALIGNMENT INDICATOR LIGHTS
MSL	MEAN SEA LEVEL
NAVAID	NAVIGATIONAL AID
PAPI	PRECISION APPROACH PATH INDICATOR
POFZ	PRECISION OBSTACLE FREE ZONE
ROFA	RUNWAY OBJECT FREE AREA
ROFZ	RUNWAY OBSTACLE FREE ZONE
RPZ	RUNWAY PROTECTION ZONE
RSA	RUNWAY SAFETY AREA
RW	RUNWAY
SDPD	SAN DIEGO POLICE DEPARTMENT
TDZ	TOUCHDOWN ZONE
TODA	TAKE OFF DISTANCE AVAILABLE
TOFA	TAXIWAY OBJECT FREE AREA
TORA	TAKE OFF RUN AVAILABLE
TSA	TAXIWAY SAFETY AREA
TSS	THRESHOLD SITING SURFACE
TW	TAXIWAY

AIRPORT DATA TABLE

AIRPORT DATA	EXISTING	ULTIMATE
Airport Reference Code (ARC)	B-II	Same
Mean Max Temperature of Hottest Month	80.9°F (August)	N/A
Airport Elevation (above MSL) (NAVD 88)	427.3	Same
Airport Navigational Aids (Ownership)	Airport Beacon (City), 4-Light PAPI (FAA) ILS (FAA) MALSR (FAA)	Same
Airport Reference Point (NAD 83)		
Latitude	32° 48' 56.6" N	32° 48' 56.8" N
Longitude	117° 08' 22.4" W	117° 08' 21.6" W
Miscellaneous Facilities	Lighted Wind Cone, Segmented Circle, ATCT	Same
Critical Aircraft	Beechcraft King Air 350	Same
Wingspan	57.92 (ADG II)	Same
Main Gear Span	18.59	Same
Cockpit to Main Gear	16.24 (TDG 2)	Same
Approach Speed	107 knots	Same
Airfield Lighting	MIRL, REIL, MALSR	Same
Magnetic Variation	11.60°E ± 0.33°W	N/A
Date of Magnetic Variation	2/20/2017	N/A
NPIAS Service Level	Regional, Reliever	N/A
State Service Level	METROPOLITAN - Business/Corporate	N/A

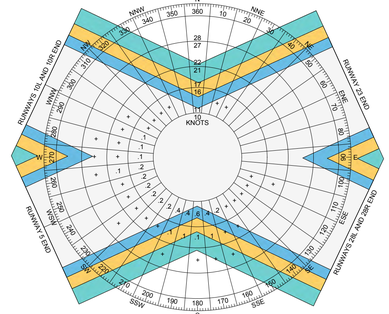
DECLARED DISTANCES

RUNWAY END ID	TORA	TODA	ASDA	LDA
10L	4,598	4,598	4,598	4,598
28R	4,598	4,598	4,598	3,399
10R	3,401	3,401	3,401	3,401
28L	3,401	3,401	3,401	3,401
5	3,400	3,400	3,400	3,011
23	3,400	3,400	3,400	3,400



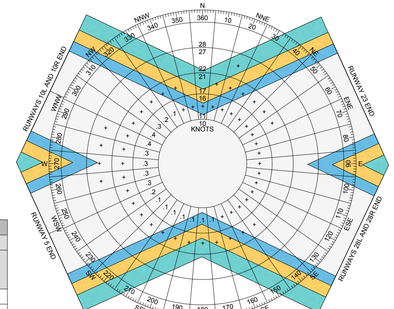
ALL WEATHER WIND COVERAGE[1]

CROSSWIND COMPONENT	PERCENT COVERAGE		
	RUNWAYS 10L-28R 10R-28L	RUNWAY 5-23	COMBINED
10.5 KNOTS	98.65%	98.42%	99.49%
13 KNOTS	99.35%	99.31%	99.82%
16 KNOTS	99.89%	99.91%	99.96%
20 KNOTS	99.98%	99.99%	100.00%



IFR WIND COVERAGE[1]

CROSSWIND COMPONENT	PERCENT COVERAGE		
	RUNWAYS 10L-28R 10R-28L	RUNWAY 5-23	COMBINED
10.5 KNOTS	97.11%	97.85%	98.39%
13 KNOTS	98.43%	98.88%	99.34%
16 KNOTS	99.57%	99.74%	99.84%
20 KNOTS	99.92%	99.96%	99.99%



VFR WIND COVERAGE[1]

CROSSWIND COMPONENT	PERCENT COVERAGE		
	RUNWAYS 10L-28R 10R-28L	RUNWAY 5-23	COMBINED
10.5 KNOTS	98.97%	98.58%	99.69%
13 KNOTS	99.53%	99.41%	99.91%
16 KNOTS	99.94%	99.93%	99.99%
20 KNOTS	99.99%	99.99%	100.00%

TAXIWAY DATA

	EXISTING														PROPOSED	
	PARALLEL TAXIWAYS			ENTRANCE / EXIT TAXIWAYS											ENTRANCE / EXIT TAXIWAYS	
Taxiway Designation	H (West of TWY B)	H (East of TWY B)	G	A (FUT H1)	B (FUT H2)	C (FUT H3)	D	E	M	F (FUT G1 and H5)	G1 (FUT H4)	J	K	L	G2	P
Taxiway Design Group (TDG)	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Taxiway Width (Actual / Standard)	(40 / 35)	(50 / 35)	(50 / 35)	(50 / 35)	(50 / 35)	(50 / 35)	(40 / 35)	(50 / 35)	(50 / 35)	(50 / 35)	(50 / 35)	(40 / 35)	(40 / 35)	(40 / 35)	35	35
Taxiway Edge Safety Margin	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
Taxiway Shoulder Width (Actual / Standard)	(N/A / 15)	(N/A / 15)	(N/A / 15)	(N/A / 15)	(N/A / 15)	(N/A / 15)	(N/A / 15)	(N/A / 15)	(N/A / 15)	(N/A / 15)	(N/A / 15)	(N/A / 15)	(N/A / 15)	(N/A / 15)	(N/A / 15)	(N/A / 15)
Taxiway Safety Area (TSA)	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79
Taxiway Object Free Area (TOFA)	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115	115
Objects Located in TSA/TOFA (Distance from centerline)	No	No	No	No	No	No	No	No	No	No	No	No	Yes (43')	No	No	No
Taxiway Lighting	MITL	MITL	MITL	MITL	MITL	None	MITL	MITL	MITL	MITL	MITL	MITL	None	None	MITL	MITL

NON-STANDARD CONDITIONS

NUMBER	EXISTING CONDITION	PROPOSED DISPOSITION
1	Non-stanard taxilane widths.	Limit access to only aircraft with sufficiently small wingspan.
2	Buildings located in Runway 23 departure RPZ.	Remove pavement from Runway 5 end up to the existing displaced threshold.
3	Major highway traversing Runway 10L and Runway 10R Approach RPZs.	No Action. The roads are an existing condition and are off Airport property.
4	Buildings and road located in Runway 28R Approach RPZ.	No Action. The obstructions are an existing condition.
5	Undersized aircraft run-up aprons.	Remove or expand and mark non-compliant run-up areas.
6	Lead-in taxiway on the Runway 28R end.	Taxiway to be reconstructed to create a 90 degree entrance.
7	Wind Cone located in ROFA.	Wind cone to be relocated.
8	ASOS located in ROFA.	Pursue a Modification of Standards.

EXISTING MODIFICATIONS OF DESIGN STANDARDS

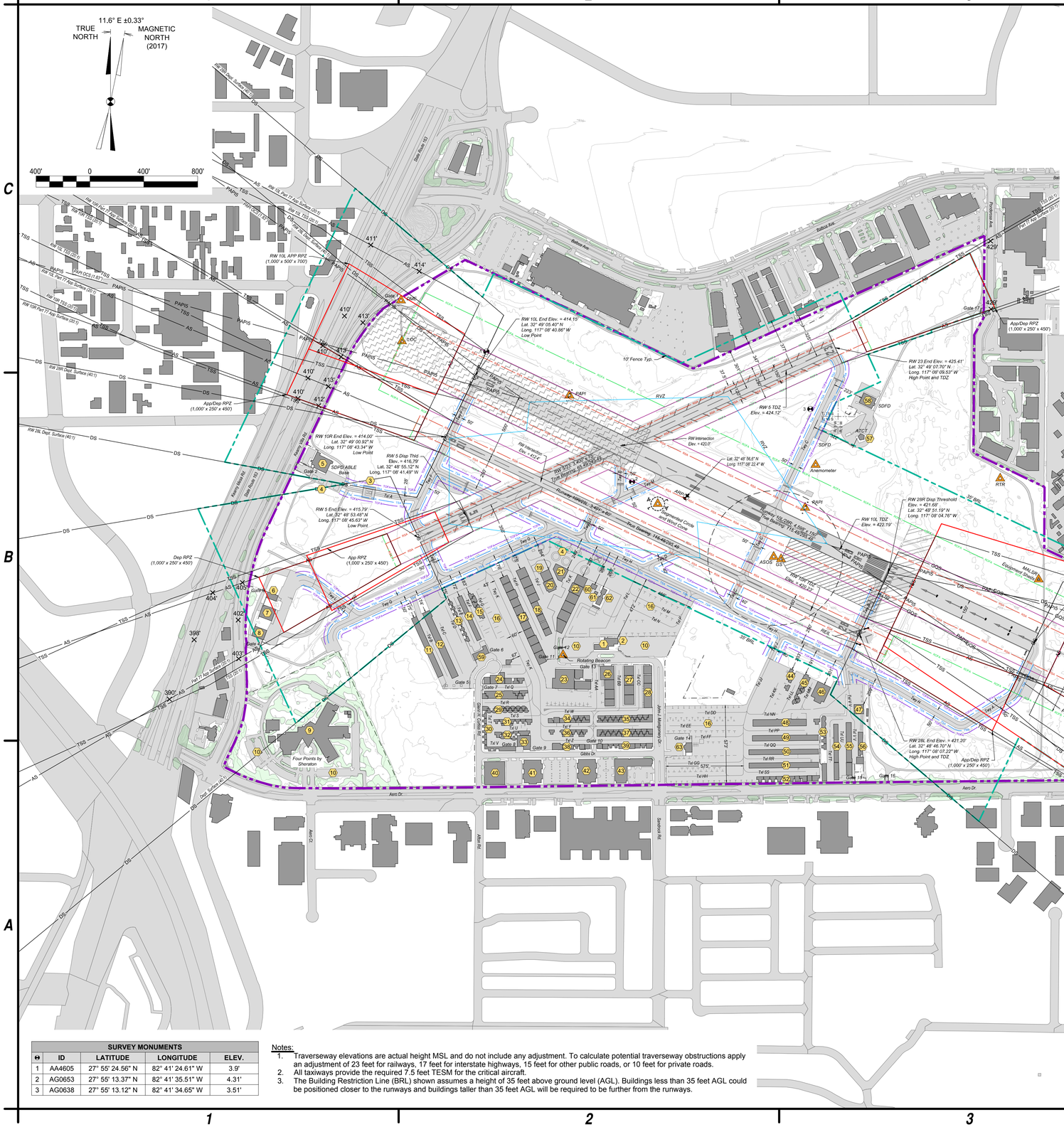
NO.	STANDARD MODIFIED	FAA STANDARD	PROPOSED CONDITION	PROPOSED ACTION	DATE APPROVED
1	Taxilane Object Free Area	Clear of Objects	Proposed Hangar Construction within Taxilane E Taxilane Object Free Area.	Project conditionally approved. See Airspace Review Case Number 2019-AWP-4161-NRA.	9/5/2019

Notes:

1. Data reported at MYF for the period between 2007-2016 and provided by the National Oceanic & Atmospheric Administration, National Climatic Data Center.

TAXILANE DATA

| | EXISTING | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | PROPOSED | | | | | | | | | | | | | | | | | | |



LEGEND	
EXISTING	DESCRIPTION
	Fence
	Airport Property Line
RSA	Runway Safety Area
ROFA	Runway Object Free Area
	Runway Obstacle Free Zone
TSA	Taxiway Safety Area
TOFA	Taxiway Object Free Area
	Runway Protection Zone
AS	Part 77 Approach Surface
TSS	Threshold Siting Surface
GQS	Glide Path Qualification Surface
	Building Restriction Line (35')
PAPI5	PAPI Obstacle Clearance Surface
DS	Departure Surface
	Precision Obstacle Free Zone
	Localizer Critical Area
	Glide slope Critical Area
	Tree Stand Area
ARP	Airport Reference Point
	Survey Monument
	Navigational Aid
359'	Spot Elevation (MSL)[1]
	Section Corner

EXISTING FACILITIES TABLE

ID	FACILITY DESCRIPTION	TOP ELEV. (MSL)	OBSTRUCTION MARKING / LIGHTING
1	Administration Building	445.8	None
2	Restaurant	445.8	None
3	Private Heliport	N/A	None
4	Helicopter Parking Space(s)	N/A	None
5	SDPD Air Support Unit Hangar (ABLE Base)	442.2	None
6	Hangar	430.5	None
7	Spider's Aircraft Services Inc. (Hangar)	437.1	None
8	Large Box Hangar	436.8	None
9	Hotel	440.6	None
10	Auto Parking	N/A	None
11	Box Hangars	434.5	None
12	Box Hangars	441.9	None
13	Portable Hangars	424.8	None
14	T-Hangar Row	426.1	None
15	Portable Hangars	428.0	None
16	Aircraft Tie-downs	N/A	None
17	Large Box Hangars	435.3	None
18	Large Box Hangars	436.9	None
19	Fuel Island	N/A	None
20	Large Box Hangars	438.0	None
21	Large Box Hangar	440.9	None
22	Large Box Hangars	439.8	None
23	Fixed Base Operator (CrownAir)	437.7	None
24	Portable Hangars	432.3	None
25	Portable Hangars	433.1	None
26	Large Box Hangars	438.9	None
27	Large Box Hangars	439.4	None
28	Large Box Hangars	440.1	None
29	Portable Hangars	419.7	None
30	Portable Hangars	418.8	None
31	Portable Hangars	424.2	None
32	Portable Hangars	422.1	None
33	Large Box Hangar	431.4	None
34	Portable Hangars	426.4	None
35	Portable Hangars	429.6	None
36	Portable Hangars	430.3	None
37	Portable Hangars	431.3	None
38	Portable Hangars	434.9	None
39	Portable Hangars	431.0	None
40	Office Building	452.9	None
41	Office Building	435.8	None
42	Office Building	439.0	None
43	Retail/Commercial	431.3	None
44	Portable Hangars	439.7	None
45	Portable Hangars	441.7	None
46	Large Box Hangar	447.1	None
47	Large Box Hangar	440.8	None
48	T-Hangar Row	440.4	None
49	Aircraft Shelters	435.7	None
50	T-Hangar Row	436.2	None
51	T-Hangar Row	435.6	None
52	Portable Hangars	436.2	None
53	Portable Hangars	427.1	None
54	T-Hangar Row	428.2	None
55	T-Hangar Row	432.9	None
56	Portable Hangars	431.6	None
57	Airport Traffic Control Tower (ATCT)	487.7	Yes
58	San Diego Fire Department	440.8	None
59	Fixed Base Operator	430.0	None
60	Garage	431.6	None
61	Electrical Vault	425.0	None

SURVEY MONUMENTS				
↔	ID	LATITUDE	LONGITUDE	ELEV.
1	AA4605	27° 55' 24.56" N	82° 41' 24.61" W	3.9'
2	AG0653	27° 55' 13.37" N	82° 41' 35.51" W	4.31'
3	AG0638	27° 55' 13.12" N	82° 41' 34.65" W	3.51'

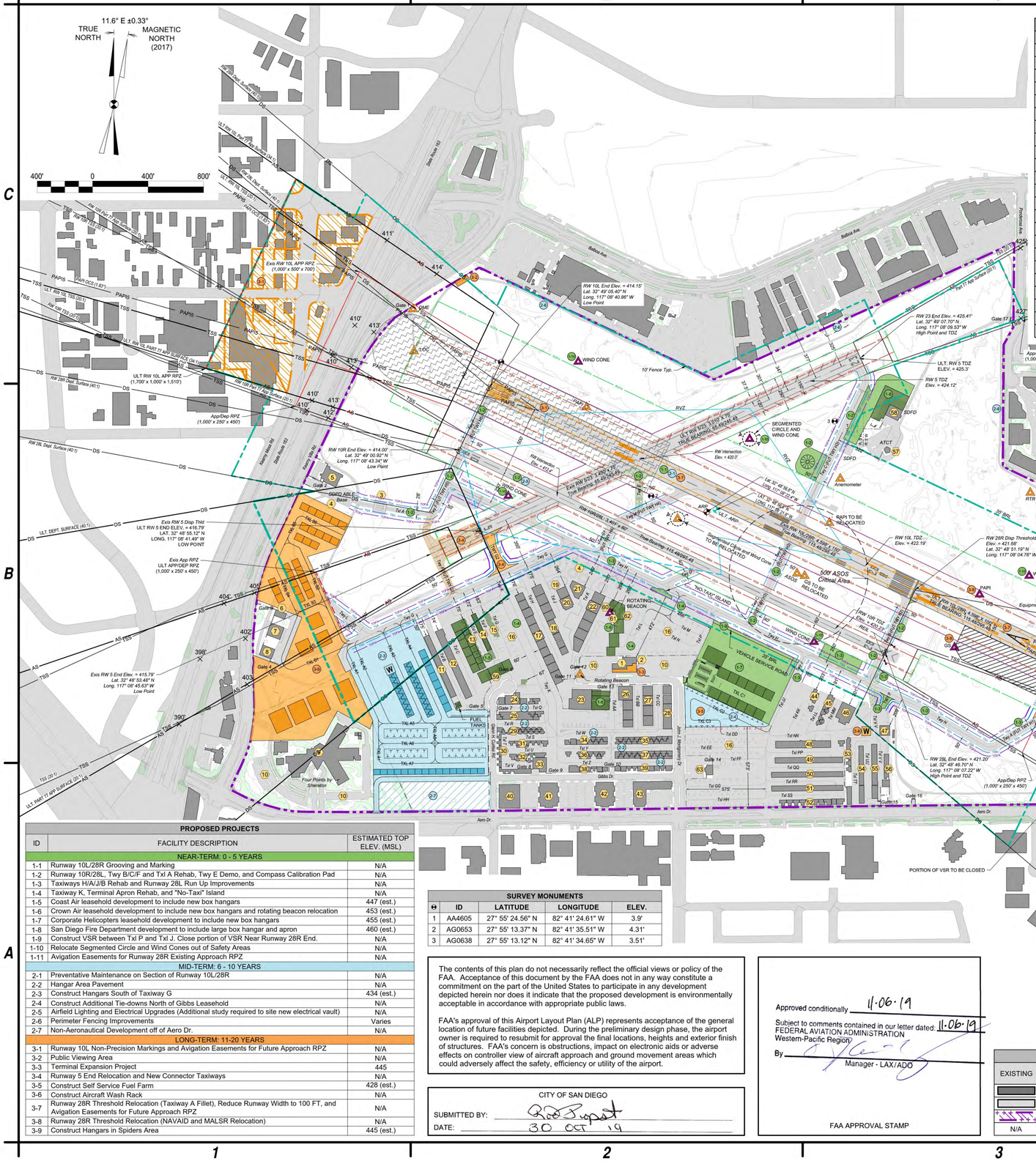
Notes:
1. Traverseway elevations are actual height MSL and do not include any adjustment. To calculate potential traverseway obstructions apply an adjustment of 23 feet for railways, 17 feet for interstate highways, 15 feet for other public roads, or 10 feet for private roads.
2. All taxiways provide the required 7.5 feet TESM for the critical aircraft.
3. The Building Restriction Line (BRL) shown assumes a height of 35 feet above ground level (AGL). Buildings less than 35 feet AGL could be positioned closer to the runways and buildings taller than 35 feet AGL will be required to be further from the runways.

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The City of SAN DIEGO

AIRPORT LAYOUT PLAN UPDATE
MONTGOMERY-GIBBS EXECUTIVE AIRPORT
CITY OF SAN DIEGO
CALIFORNIA

MARK	DATE	DESCRIPTION



LEGEND		
EXISTING	ULTIMATE	DESCRIPTION
	N/A	Fence
	Same	Airport Property Line
RSA	RSA	Runway Safety Area
ROFA	ROFA	Runway Object Free Area
		Runway Obstacle Free Zone
TSA	TSA	Taxiway Safety Area
TOFA	TOFA	Taxiway Object Free Area
		Runway Protection Zone
AS	AS	Part 77 Approach Surface
TSS	TSS	Threshold Siting Surface
GQS	GQS	Glide Path Qualification Surface
		Building Restriction Line (35')
PAPI5	PAPI5	PAPI Obstacle Clearance Surface
DS	DS	Departure Surface
N/A		Precision Obstacle Free Zone
N/A	N/A	Localizer Critical Area
N/A		Glide Slope Critical Area
N/A	N/A	Tree Stand Area
ARP	ULT. ARP	Airport Reference Point
	N/A	Survey Monument
		Navigational Aid
359'	Same	Spot Elevation (MSL)[1]
N/A	W	Aircraft Wash Rack

EXISTING FACILITIES TABLE			
ID	FACILITY DESCRIPTION	TOP ELEV. (MSL)	OBSTRUCTION MARKING / LIGHTING
1	Administration Building	445.8	None
2	Restaurant	445.8	None
3	Private Heliport	N/A	None
4	Helicopter Parking Space(s)	N/A	None
5	SDPD Air Support Unit Hangar (ABLE Base)	442.2	None
6	Hangar	430.5	None
7	Spider's Aircraft Services Inc. (Hangar)	437.1	None
8	Large Box Hangar	436.8	None
9	Hotel	440.6	None
10	Auto Parking	N/A	None
11	Box Hangars	434.5	None
12	Box Hangars	441.9	None
13	Portable Hangars	424.8	None
14	T-Hangar Row	426.1	None
15	Portable Hangars	428.0	None
16	Aircraft Tie-downs	N/A	None
17	Large Box Hangars	435.3	None
18	Large Box Hangars	436.9	None
19	Fuel Island	N/A	None
20	Large Box Hangars	438.0	None
21	Large Box Hangar	440.9	None
22	Large Box Hangars	439.8	None
23	Fixed Base Operator (Crownair)	437.7	None
24	Portable Hangars	432.3	None
25	Portable Hangars	433.1	None
26	Large Box Hangars	438.9	None
27	Large Box Hangars	439.4	None
28	Large Box Hangars	440.1	None
29	Portable Hangars	419.7	None
30	Portable Hangars	418.8	None
31	Portable Hangars	424.2	None
32	Portable Hangars	422.1	None
33	Large Box Hangar	431.4	None
34	Portable Hangars	426.4	None
35	Portable Hangars	429.6	None
36	Portable Hangars	430.3	None
37	Portable Hangars	431.3	None
38	Portable Hangars	434.9	None
39	Portable Hangars	431.0	None
40	Office Building	452.9	None
41	Office Building	435.8	None
42	Office Building	439.0	None
43	Retail/Commercial	431.3	None
44	Portable Hangars	439.7	None
45	Portable Hangars	441.7	None
46	Large Box Hangar	447.1	None
47	Large Box Hangar	440.8	None
48	T-Hangar Row	440.4	None
49	Aircraft Shelters	435.7	None
50	T-Hangar Row	436.2	None
51	T-Hangar Row	435.6	None
52	Portable Hangars	436.2	None
53	Portable Hangars	427.1	None
54	T-Hangar Row	428.2	None
55	T-Hangar Row	432.9	None
56	Portable Hangars	431.6	None
57	Airport Traffic Control Tower (ATCT)	487.7	Yes
58	San Diego Fire Department	440.8	None
59	Fixed Base Operator	430.0	None
60	Garage	431.6	None
61	Electrical Vault	425.0	None
62	Fixed Base Operator	429.3	None
63	Fixed Base Operator (Gibbs Flying Service, Inc.)	433.1	None

PROPOSED PROJECTS		
ID	FACILITY DESCRIPTION	ESTIMATED TOP ELEV. (MSL)
NEAR-TERM: 0 - 5 YEARS		
1-1	Runway 10L/28R Grooving and Marking	N/A
1-2	Runway 10R/28L, Twy B/C/F and Txl A Rehab, Twy E Demo, and Compass Calibration Pad	N/A
1-3	Taxiways H/A/J/B Rehab and Runway 28L Run Up Improvements	N/A
1-4	Taxiway K, Terminal Apron Rehab, and "No-Taxi" Island	N/A
1-5	Coast Air leasehold development to include new box hangars	447 (est.)
1-6	Crown Air leasehold development to include new box hangars and rotating beacon relocation	453 (est.)
1-7	Corporate Helicopters leasehold development to include new box hangars	455 (est.)
1-8	San Diego Fire Department development to include large box hangar and apron	460 (est.)
1-9	Construct VSR between Txl P and Txl J. Close portion of VSR Near Runway 28R End.	N/A
1-10	Relocate Segmented Circle and Wind Cones out of Safety Areas	N/A
1-11	Avigation Easements for Runway 28R Existing Approach RPZ	N/A
MID-TERM: 6 - 10 YEARS		
2-1	Preventative Maintenance on Section of Runway 10L/28R	N/A
2-2	Hangar Area Pavement	N/A
2-3	Construct Hangars South of Taxiway G	434 (est.)
2-4	Construct Additional Tie-downs North of Gibbs Leasehold	N/A
2-5	Airfield Lighting and Electrical Upgrades (Additional study required to site new electrical vault)	N/A
2-6	Perimeter Fencing Improvements	Varies
2-7	Non-Aeronautical Development off of Aero Dr.	N/A
LONG-TERM: 11-20 YEARS		
3-1	Runway 10L Non-Precision Markings and Avigation Easements for Future Approach RPZ	N/A
3-2	Public Viewing Area	N/A
3-3	Terminal Expansion Project	445
3-4	Runway 5 End Relocation and New Connector Taxiways	N/A
3-5	Construct Self Service Fuel Farm	428 (est.)
3-6	Construct Aircraft Wash Rack	N/A
3-7	Runway 28R Threshold Relocation (Taxiway A Fillet), Reduce Runway Width to 100 FT, and Avigation Easements for Future Approach RPZ	N/A
3-8	Runway 28R Threshold Relocation (NAVAID and MALSR Relocation)	N/A
3-9	Construct Hangars in Spiders Area	445 (est.)

SURVEY MONUMENTS				
↔	ID	LATITUDE	LONGITUDE	ELEV.
1	AA4605	27° 55' 24.56" N	82° 41' 24.61" W	3.9'
2	AG0653	27° 55' 13.37" N	82° 41' 35.51" W	4.31'
3	AG0638	27° 55' 13.12" N	82° 41' 34.65" W	3.51'

The contents of this plan do not necessarily reflect the official views or policy of the FAA. Acceptance of this document by the FAA does not in any way constitute a commitment on the part of the United States to participate in any development depicted herein nor does it indicate that the proposed development is environmentally acceptable in accordance with appropriate public laws.

FAA's approval of this Airport Layout Plan (ALP) represents acceptance of the general location of future facilities depicted. During the preliminary design phase, the airport owner is required to resubmit for approval the final locations, heights and exterior finish of structures. FAA's concern is obstructions, impact on electronic aids or adverse effects on controller view of aircraft approach and ground movement areas which could adversely affect the safety, efficiency or utility of the airport.

CITY OF SAN DIEGO

SUBMITTED BY: Rick Pigott

DATE: 30 OCT 19

Approved conditionally 11·06·19

Subject to comments contained in our letter dated: 11·06·19

FEDERAL AVIATION ADMINISTRATION
Western-Pacific Region

By _____
Manager - LAX/ADO

FAA APPROVAL STAMP

LEGEND				
EXISTING	NEAR-TERM (0-5 YEARS)	MID-TERM (6-10 YEARS)	LONG-TERM (11-20 YEARS)	DESCRIPTION
				Buildings
				Pavement
		N/A		Avigation Easement
N/A		N/A		Demolition

Notes:
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AIRPORT LAYOUT PLAN UPDATE
MONTGOMERY-GIBBS EXECUTIVE AIRPORT
CITY OF SAN DIEGO
CALIFORNIA

MARK	DATE	DESCRIPTION
REVISIONS		

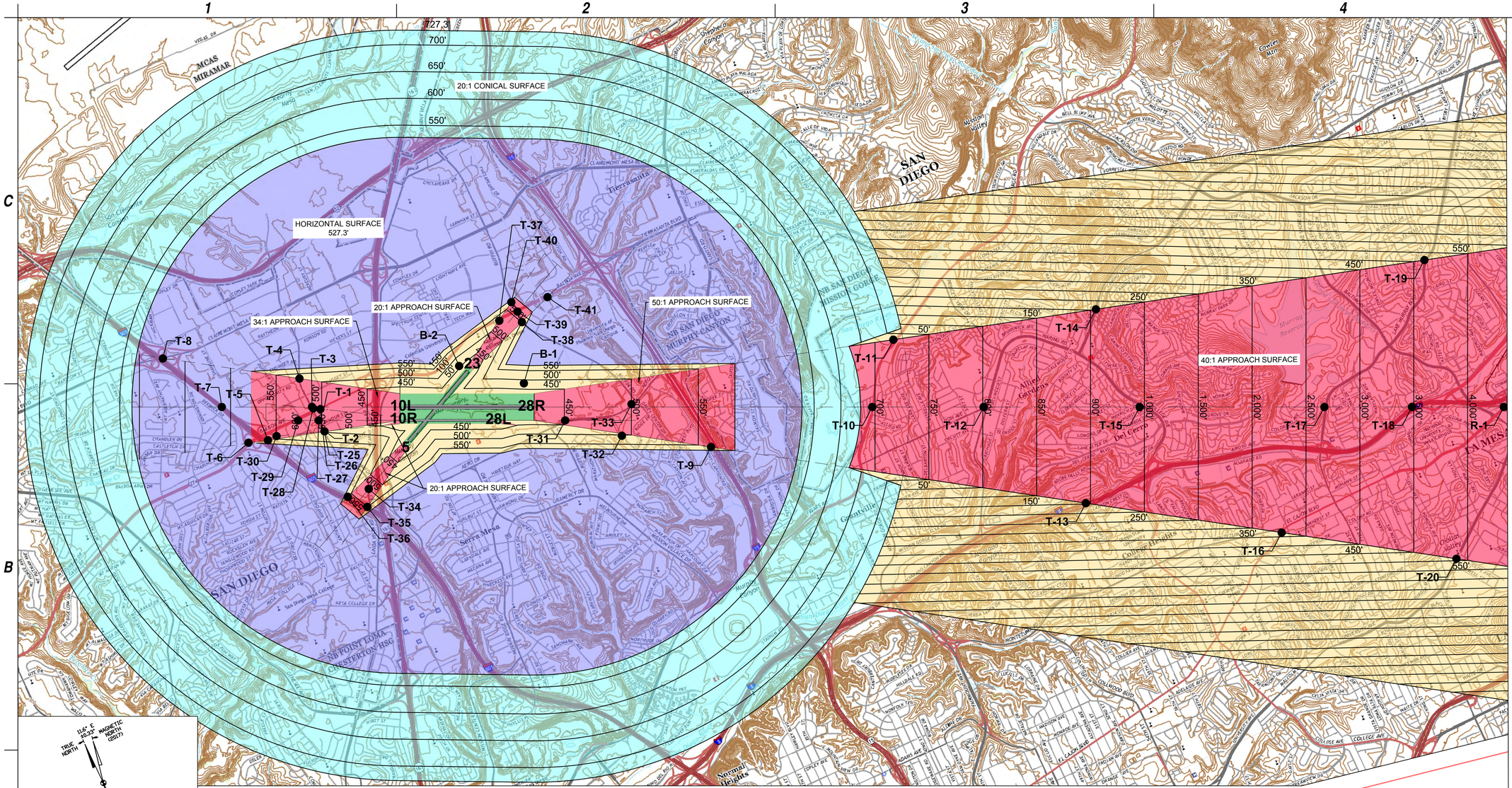
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DATE: OCTOBER 2019
DRAWN BY: J.J. SHURER
DESIGNED BY: J.J. SHURER
CHECKED BY: N.M. ALEX

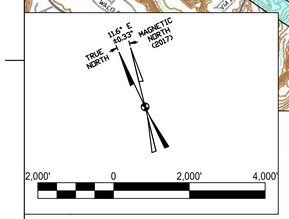
FUTURE AIRPORT LAYOUT PLAN

4 of 12

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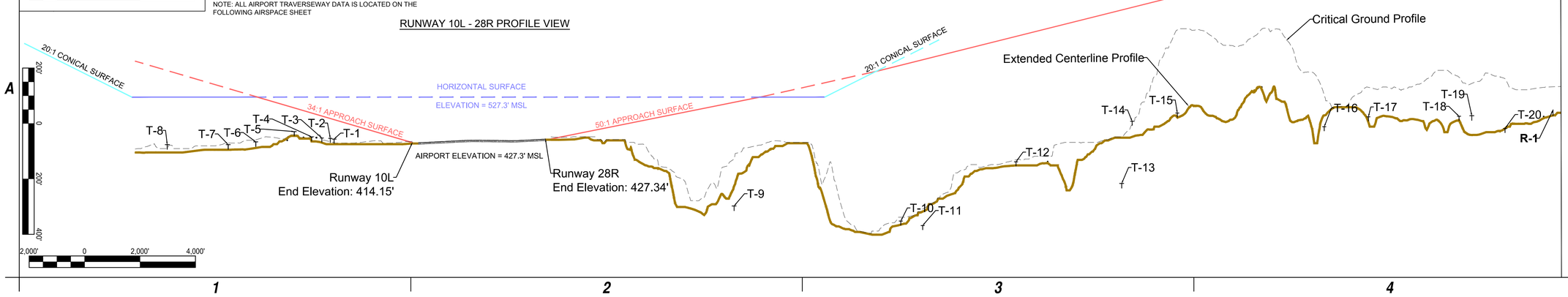


Approach Surface | Horizontal Surface | Primary Surface

Transitional Surface | Conical Surface

NOTE: ALL AIRPORT TRAVERSEWAY DATA IS LOCATED ON THE FOLLOWING AIRSPACE SHEET

RUNWAY 10L - 28R PROFILE VIEW



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The City of SAN DIEGO

AIRPORT LAYOUT PLAN UPDATE
MONTGOMERY-GIBBS EXECUTIVE AIRPORT
CITY OF SAN DIEGO
CALIFORNIA

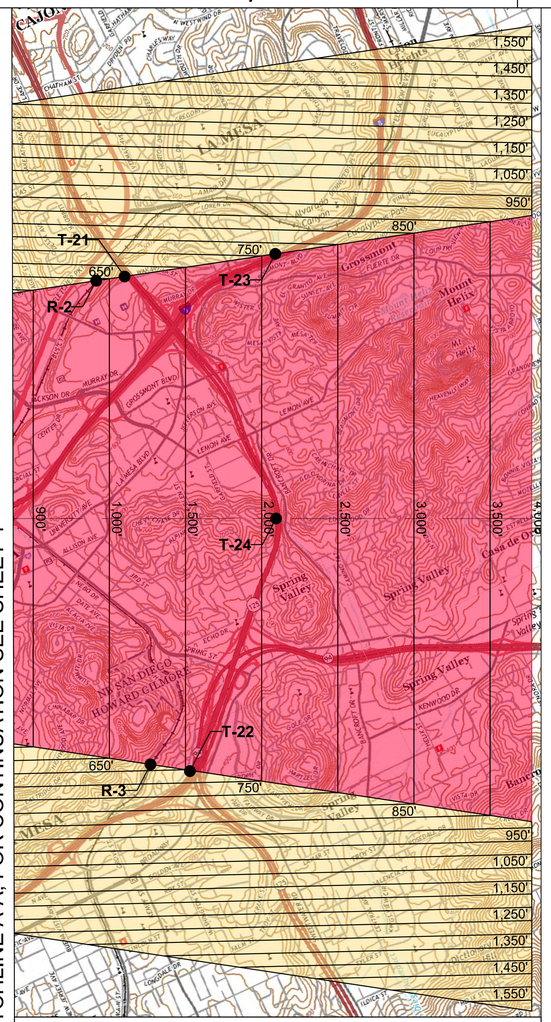
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REVISIONS		
PROJECT NO:	Q74.001.001	
DATE:	OCTOBER 2019	
DRAWN BY:	K.A. KRIER	
DESIGNED BY:	K.A. KRIER	
CHECKED BY:	A.M. MARRON	

AIRPORT AIRSPACE DRAWING

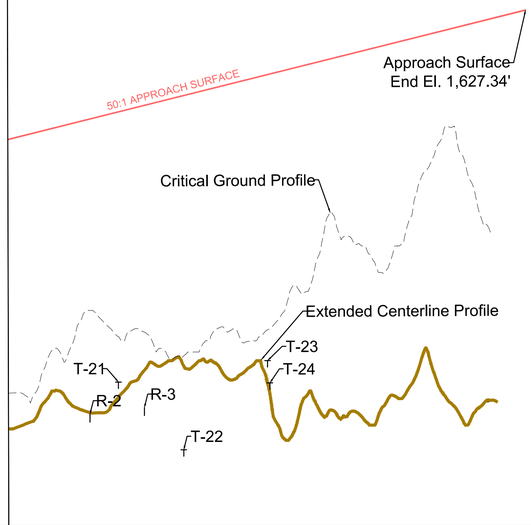
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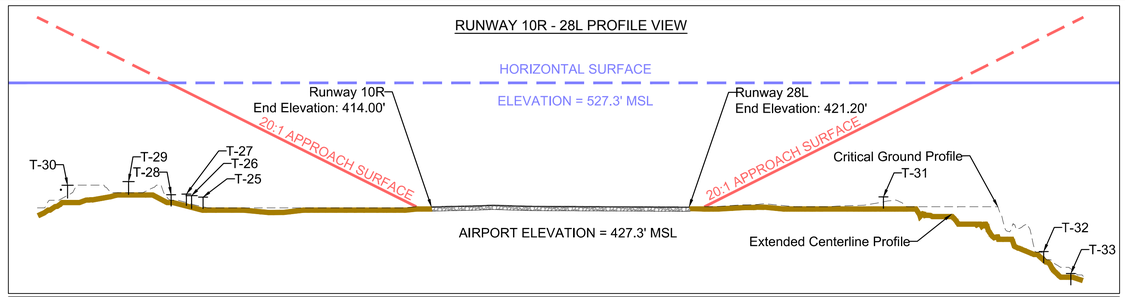
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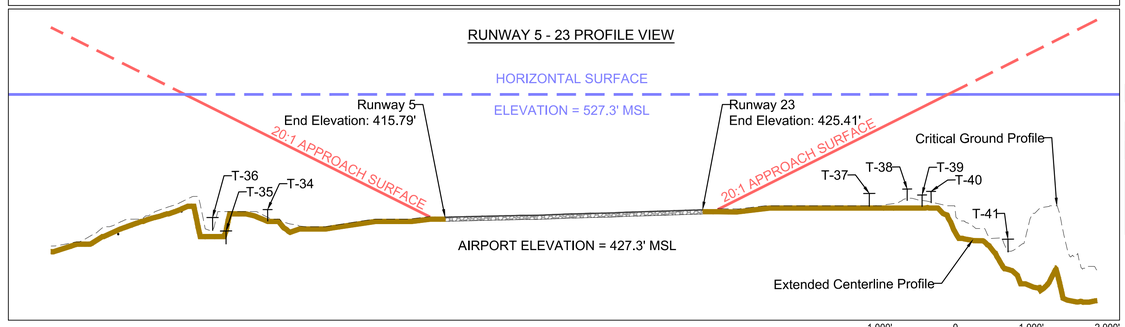
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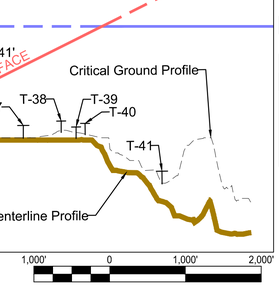


MATCHLINE A-A, FOR CONTINUATION SEE SHEET 4

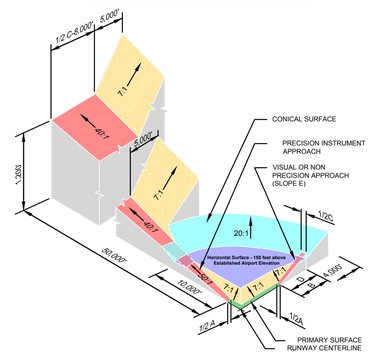








SAMPLE ISOMETRIC VIEW OF SECTION



DIM	ITEM	DIMENSIONAL STANDARDS (FEET)					
		VISUAL RUNWAY		NON-PRECISION INSTRUMENT RUNWAY			PRECISION INSTRUMENT RUNWAY
		A	B	A	B C	B D	
A	WIDTH OF PRIMARY SURFACE AND APPROACH SURFACE WIDTH AT INNER END	250	500	500	500	1,000	1,000
B	RADIUS OF HORIZONTAL SURFACE	5,000	5,000	5,000	10,000	10,000	10,000
		VISUAL RUNWAY		NON-PRECISION INSTRUMENT RUNWAY			PRECISION INSTRUMENT RUNWAY
		A	B	A	B C	B D	
C	APPROACH SURFACE WIDTH AT END	1,250	1,500	2,000	3,500	4,000	16,000
D	APPROACH SURFACE LENGTH	5,000	5,000	5,000	10,000	10,000	*
E	APPROACH SLOPE	20:1	20:1	20:1	34:1	34:1	*
	APPROACH FLARE	0:1:1	0:1:1	0:10:1	0:15:1	0:15:1	0:15:1

A - UTILITY RUNWAYS
B - RUNWAYS LARGER THAN UTILITY
C - VISIBILITY MINIMUMS GREATER THAN 3/4 MILES
D - VISIBILITY MINIMUMS AS LOW AS 3/4 MILE
* - PRECISION INSTRUMENT APPROACH SLOPE IS 50:1 FOR INNER 10,000 FEET AND 40:1 FOR AN ADDITIONAL 40,000 FEET

RUNWAY 10L SIGNIFICANT OBJECT AND TRAVERSEWAY TABLE

OBJECT ID	DESCRIPTION	SURVEY DATE	GROUND ELEVATION (MSL)	TRAVERSEWAY ELEVATION (MSL)	TRAVERSEWAY ELEVATION (AGL)	PART 77 APPROACH SURFACE PENETRATION	PROPOSED DISPOSITON
T-1	BALBOA AVE. (CA-274)	6/15/2018	410.00	427.00	17	-198.12	NONE
T-2	CONVOY ST.	6/15/2018	410.66	425.66	15	-201.02	NONE
T-3	CONVOY ST.	6/15/2018	416.126	431.13	15	-180.61	NONE
T-4	CONVOY ST.	6/15/2018	414.746	429.75	15	-168.24	NONE
T-5	BALBOA AVE. (CA-274)	6/15/2018	390.781	407.78	17	-155.63	NONE
T-6	BALBOA AVE. (CA-274)	6/15/2018	400	417.00	17	-125.04	NONE
T-7	JACOB DEKEMA FREEWAY (I-805)	6/15/2018	390	407.00	17	-105.77	NONE
T-8	JACOB DEKEMA FREEWAY (I-805)	6/15/2018	390	407.00	17	-41.09	NONE

RUNWAY 28R SIGNIFICANT OBJECT AND TRAVERSEWAY TABLE

OBJECT ID	DESCRIPTION	SURVEY DATE	GROUND ELEVATION (MSL)	TRAVERSEWAY ELEVATION (MSL)	TRAVERSEWAY ELEVATION (AGL)	PART 77 APPROACH SURFACE PENETRATION	TRANSITIONAL SURFACE PENETRATION	PROPOSED DISPOSITON
B-1	BUILDING	5/17/2018	432.5	495.1	62.6	N/A	31.56	UNKNOWN
T-9	ESCONDIDO FWY. (I-15)	6/15/2018	168.65	185.65	17	-366.40	N/A	NONE
T-10	FRIARS RD.	6/15/2018	116.43	131.43	15	-553.98	N/A	NONE
T-11	MISSION GORGE RD.	6/15/2018	100.00	115.00	15	-590.10	N/A	NONE
T-12	BIRCHWOOD ST.	6/15/2018	330.00	345.00	15	-444.29	N/A	NONE
T-13	MISSION VALLEY FWY. (I-8)	6/15/2018	250.00	267.00	17	-617.61	N/A	NONE
T-14	NAVAJO RD.	6/15/2018	476.17	491.17	15	-402.86	N/A	NONE
T-15	COLLEGE AVE.	6/15/2018	505.88	520.88	15	-413.87	N/A	NONE
T-16	EL CAJON BLVD.	6/15/2018	456.51	471.51	15	-595.74	N/A	NONE
T-17	LAKE MURRAY BLVD.	6/15/2018	492.16	507.16	15	-599.95	N/A	NONE
T-18	LAKE MURRAY BLVD.	6/15/2018	494.30	509.30	15	-557.05	N/A	NONE
T-19	MISSION VALLEY FWY. (I-8)	6/15/2018	494.18	511.18	17	-677.67	N/A	NONE
T-20	UNIVERSITY AVE.	6/15/2018	450.00	465.00	15	-765.31	N/A	NONE
T-21	CA-125	6/15/2018	628.56	645.56	17	-705.67	N/A	NONE
T-22	MARTIN LUTHER KING FWY. (CA-94)	6/15/2018	450.00	467.00	17	-927.31	N/A	NONE
T-23	MISSION VALLEY FWY. (I-8)	6/15/2018	685.18	643.65	17	-807.50	N/A	NONE
T-24	CA-125	6/15/2018	626.65	702.18	17	-748.47	N/A	NONE
R-1	RAILWAY	6/15/2018	511.01	532.01	21	-742.58	N/A	NONE
R-2	RAILWAY	6/15/2018	540.00	561.00	21	-771.58	N/A	NONE
R-3	RAILWAY	6/15/2018	557.14	578.14	21	-790.31	N/A	NONE

SIGNIFICANT OBJECT AND RUNWAY 10R TRAVERSEWAY TABLE

OBJECT ID	DESCRIPTION	SURVEY DATE	GROUND ELEVATION (MSL)	TRAVERSEWAY ELEVATION (MSL)	TRAVERSEWAY ELEVATION (AGL)	PART 77 APPROACH SURFACE PENETRATION	PROPOSED DISPOSITON
T-25	CONVOY ST.	6/15/2018	411.55	426.55	15	-127.82	NONE
T-26	BALBOA AVE. (CA-274)	6/15/2018	410.00	427.00	17	-135.00	NONE
T-27	CONVOY ST.	6/15/2018	415.62	430.62	15	-134.73	NONE
T-28	CONVOY ST.	6/15/2018	414.76	429.76	15	-145.66	NONE
T-29	BALBOA AVE. (CA-274)	6/15/2018	430.00	447.00	17	-156.55	NONE
T-30	BALBOA AVE. (CA-274)	6/15/2018	408.23	425.23	17	-218.54	NONE

SIGNIFICANT OBJECT AND RUNWAY 28L TRAVERSEWAY TABLE

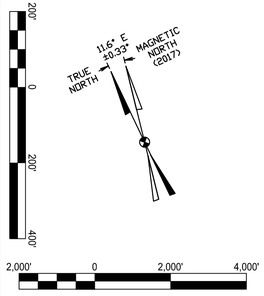
OBJECT ID	DESCRIPTION	SURVEY DATE	GROUND ELEVATION (MSL)	TRAVERSEWAY ELEVATION (MSL)	TRAVERSEWAY ELEVATION (AGL)	PART 77 APPROACH SURFACE PENETRATION	PROPOSED DISPOSITON
T-31	AERO DR.	6/15/2018	420.00	435.00	15	-97.27	NONE
T-32	W CANYON AVE.	6/15/2018	347.89	362.89	15	-275.15	NONE
T-33	AERO DR.	6/15/2018	318.84	333.84	15	-322.12	NONE

SIGNIFICANT OBJECT AND RUNWAY 5 TRAVERSEWAY TABLE

OBJECT ID	DESCRIPTION	SURVEY DATE	GROUND ELEVATION (MSL)	TRAVERSEWAY ELEVATION (MSL)	TRAVERSEWAY ELEVATION (AGL)	PART 77 APPROACH SURFACE PENETRATION	PROPOSED DISPOSITON
T-34	CONVOY ST.	6/15/2018	410.28	425.28	15	-97.27	NONE
T-35	I-805	6/15/2018	380.00	397.00	17	-153.00	NONE
T-36	I-805	6/15/2018	397.786	414.79	17	-144.09	NONE

SIGNIFICANT OBJECT AND RUNWAY 23 TRAVERSEWAY TABLE

OBJECT ID	DESCRIPTION	SURVEY DATE	GROUND ELEVATION (MSL)	TRAVERSEWAY ELEVATION (MSL)	TRAVERSEWAY ELEVATION (AGL)	PART 77 APPROACH SURFACE PENETRATION	TRANSITIONAL SURFACE PENETRATION	PROPOSED DISPOSITON
B-2	BUILDING	6/15/2018	429.89	469.84	40	N/A	-30.39	NONE/LIGHTED
T-37	BALBOA AVE. (CAL-274)	6/15/2018	430.00	447.00	17	-78.84	N/A	NONE
T-38	RUFFIN RD.	6/15/2018	437.83	452.83	15	-98.01	N/A	NONE
T-39	RUFFIN RD.	6/15/2018	430.00	445.00	15	-115.66	N/A	NONE
T-40	RUFFIN RD.	6/15/2018	434.79	449.79	15	-116.85	N/A	NONE
T-41	BALBOA AVE. (CAL-274)	6/15/2018	369.71	386.71	17	-230.64	N/A	NONE



NOTES:

1. FEDERAL AVIATION REGULATIONS PART 77, STATES THAT A STRUCTURE IS PRESUMED TO HAVE A SUBSTANTIAL ADVERSE EFFECT UPON THE SAFE AND EFFICIENT USE OF NAVIGABLE AIRSPACE IF ITS HEIGHT EXCEEDS THE FOLLOWING STANDARDS:
   - 1.1. A HEIGHT OF FIVE HUNDRED (500) FEET ABOVE GROUND LEVEL AT THE SITE OF THE OBJECT ANYWHERE IN THE STATE.
   - 1.2. A HEIGHT THAT IS TWO HUNDRED (200) FEET ABOVE GROUND LEVEL OR ABOVE THE ESTABLISHED AIRPORT ELEVATION, WHICHEVER IS HIGHER, WITHIN THREE (3) NAUTICAL MILES OF THE ESTABLISHED REFERENCED POINT OF A PUBLIC-USE AIRPORT, EXCLUDING HELIPORTS, AND THE HEIGHT INCREASES IN THE PROPORTION OF ONE HUNDRED (100) FEET FOR EACH ADDITIONAL NAUTICAL MILE OF DISTANCE FROM THE AIRPORT UP TO A MAXIMUM OF FIVE HUNDRED (500) FEET.
   - 1.3. A HEIGHT WITHIN A TERMINAL OBSTACLE CLEARANCE AREA, INCLUDING AN INITIAL APPROACH SEGMENT, A DEPARTURE AREA, AND A CIRCLING APPROACH AREA, AS DEFINED BY FEDERAL LAWS AND REGULATIONS, WHICH WOULD RESULT IN THE VERTICAL DISTANCE BETWEEN ANY POINT ON THE OBJECT AND AN ESTABLISHED MINIMUM INSTRUMENT FLIGHT ALTITUDE WITHIN THAT AREA OR SEGMENT TO BE LESS THAN THE REQUIRED OBSTACLE CLEARANCE.
   - 1.4. A HEIGHT WITHIN AN EN ROUTE OBSTACLE CLEARANCE AREA, AS DEFINED BY FEDERAL LAWS AND REGULATIONS, INCLUDING TURN AND TERMINATION AREAS, OF A FEDERAL AIRWAY OR APPROVED OFF-AIRWAY ROUTE, THAT WOULD INCREASE THE MINIMUM OBSTACLE CLEARANCE ALTITUDE.
   - 1.5. THE SURFACE OF A TAKEOFF AND LANDING AREA OF A PUBLIC-USE AIRPORT OR ANY IMAGINARY SURFACE AS ESTABLISHED BY FAR PART 77. HOWEVER, NO PART OF THE TAKEOFF OR LANDING AREA ITSELF WILL BE CONSIDERED TO BE AN OBSTRUCTION.
2. CHAPTER 11 ARTICLE 2, DIVISION 3, SECTION 112.03 - ORDINANCE NUMBER O-20047 OF THE SAND DIEGO MUNICIPAL CODE CONTAINS FURTHER INFORMATION REGARDING THE PROTECTION OF LAND USE WITHIN AIRPORT AIRSPACE.
3. FAR PART 77 IMAGINARY SURFACES ARE AS SHOWN ON THIS SHEET FOR THE MONTGOMERY-GIBBS EXECUTIVE AIRPORT. THESE SURFACES ARE DEPICTED BASED UPON EXISTING AND ULTIMATE AIRPORT DEVELOPMENT.

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The City of SAN DIEGO

AIRPORT LAYOUT PLAN UPDATE
MONTGOMERY-GIBBS EXECUTIVE AIRPORT
CITY OF SAN DIEGO CALIFORNIA

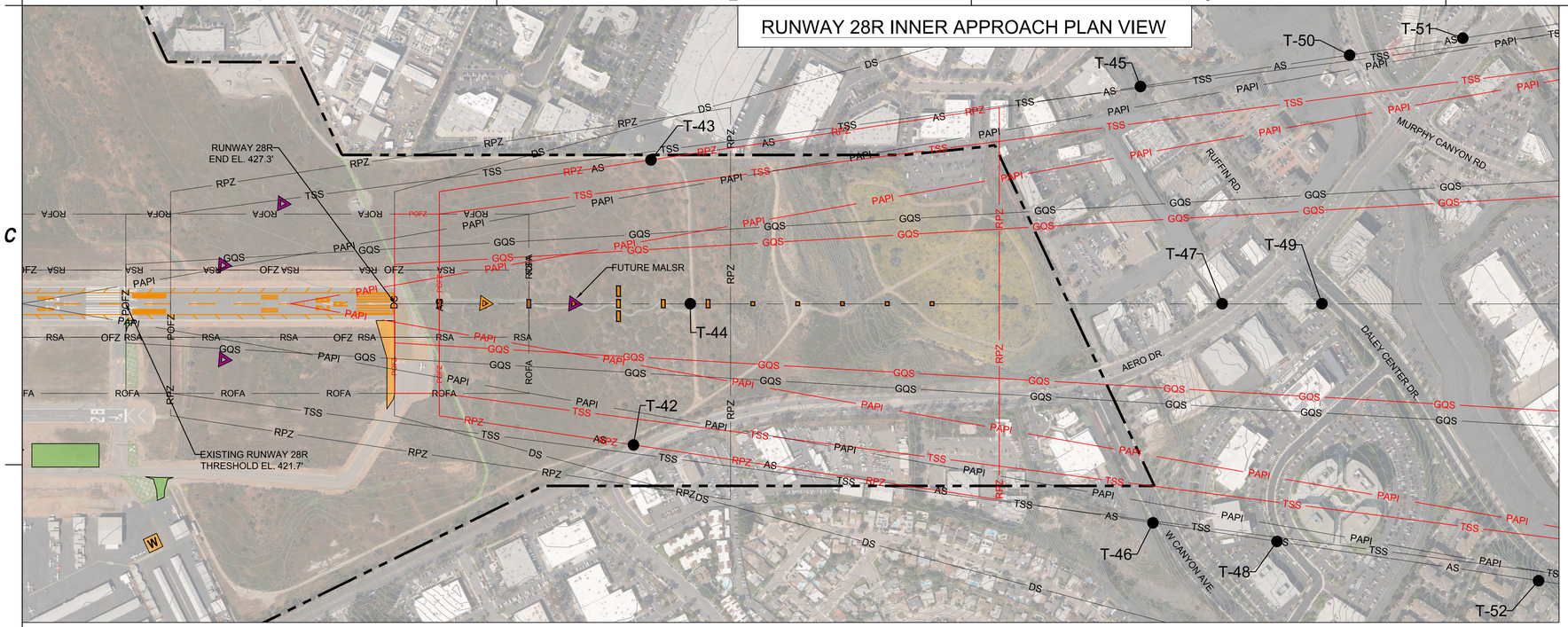
MARK	DATE	DESCRIPTION
		REVISIONS
PROJECT NO:		Q74.001.001
DATE:		OCTOBER 2019
DRAWN BY:		K.A. KRIER
DESIGNED BY:		K.A. KRIER
CHECKED BY:		A.M. MARRON

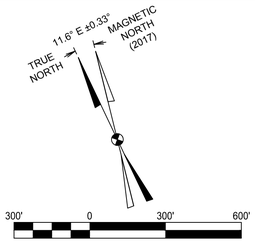
AIRPORT AIRSPACE DRAWING CONTINUED

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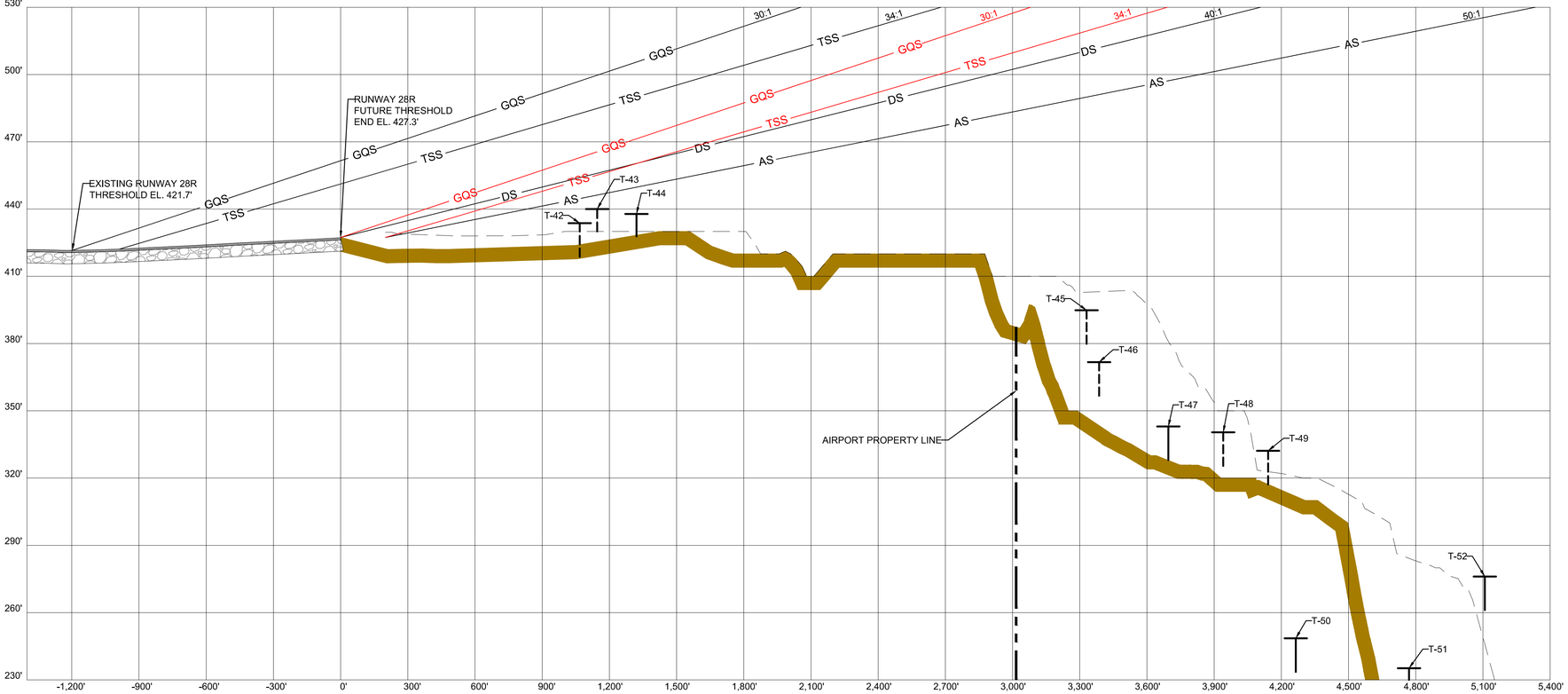
RUNWAY 28R INNER APPROACH PLAN VIEW

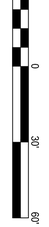




LEGEND	EXISTING	PROPOSED
APPROACH SURFACE	AS	AS
DEPARTURE SURFACE	DS	DS
THRESHOLD SITING SURFACE	TSS	TSS
GLIDEPATH QUALIFICATION SURFACE	GQS	GQS
PAPI OBSTACLE CLEARANCE SURFACE	PAPI	PAPI
RUNWAY SAFETY AREA	RSA	N/A
RUNWAY OBJECT FREE AREA	ROFA	N/A
RUNWAY OBSTACLE FREE ZONE	ROFZ	N/A
RUNWAY PROTECTION ZONE	RPZ	RPZ
AIRPORT PROPERTY LINE		N/A
EXTENDED RUNWAY C.L.		N/A
RUNWAY		N/A
TRAVERSEWAY		N/A
CRITICAL GROUND PROFILE		N/A
PROPOSED PAVEMENT - NEAR-TERM	N/A	
PROPOSED DEMOLITION - NEAR-TERM	N/A	
PROPOSED PAVEMENT - LONG-TERM	N/A	
PROPOSED DEMOLITION - LONG-TERM	N/A	
PROPOSED AIRCRAFT WASH RACK	N/A	W

RUNWAY 28R INNER APPROACH PROFILE VIEW





NOTES:

1. NONSTANDARD SCALE OF 1":30' VERTICAL AND 1":300' HORIZONTAL USED TO ACCOMMODATE SIGNIFICANT TERRAIN VARIATION.
2. DATA TABLES FOR THE SIGNIFICANT OBJECTS AND TRAVERSEWAYS PERTAINING TO RUNWAY 28R ARE LOCATED ON SHEET 8 OF THIS SET.
3. FAR PART 77 IMAGINARY SURFACES ARE AS SHOWN ON THIS SHEET FOR THE MONTGOMERY-GIBBS EXECUTIVE AIRPORT. THESE SURFACES ARE DEPICTED BASED UPON EXISTING AND ULTIMATE AIRPORT DEVELOPMENT.

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The City of SAN DIEGO

AIRPORT LAYOUT PLAN UPDATE
MONTGOMERY-GIBBS EXECUTIVE AIRPORT
CITY OF SAN DIEGO
CALIFORNIA

MARK	DATE	DESCRIPTION

REVISIONS

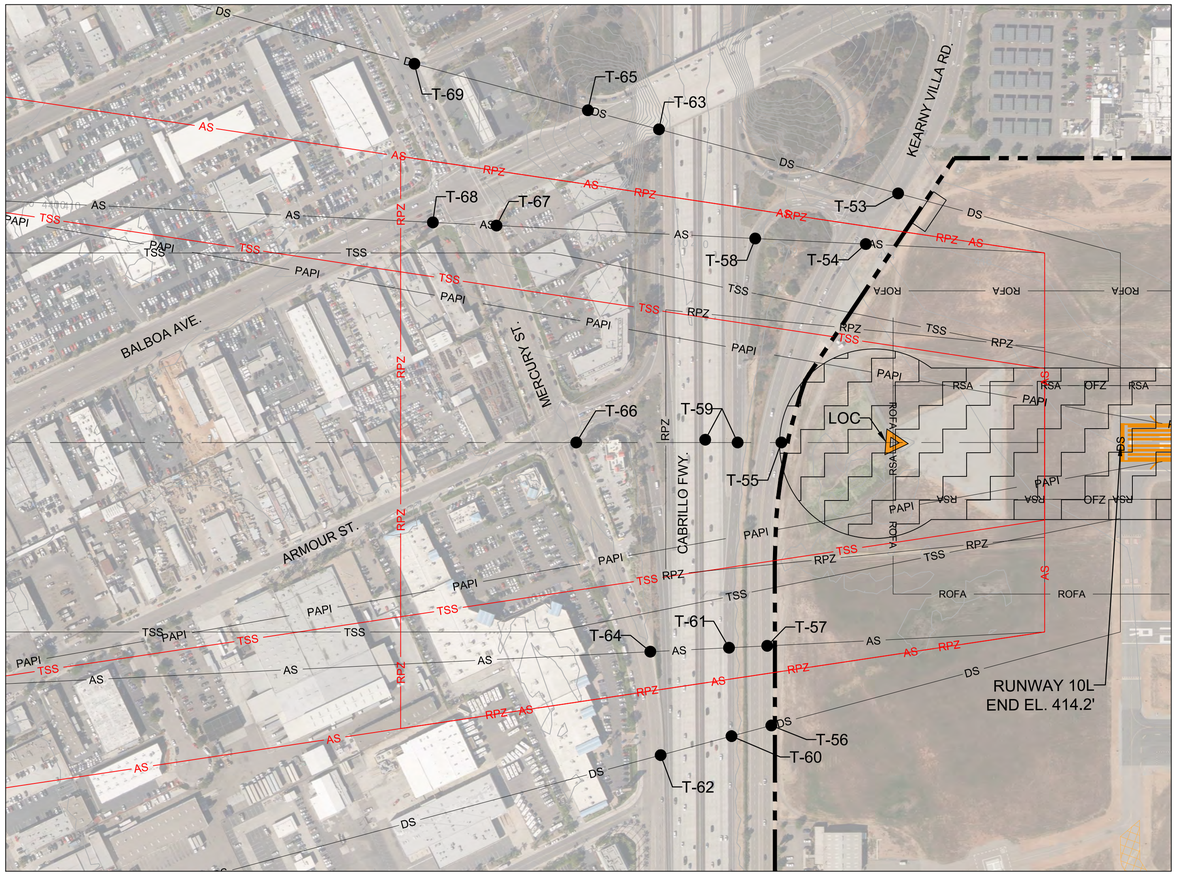
PROJECT NO:	Q74.001.001
DATE:	OCTOBER 2019
DRAWN BY:	K.A. KRIER
DESIGNED BY:	K.A. KRIER
CHECKED BY:	A.M. MARRON

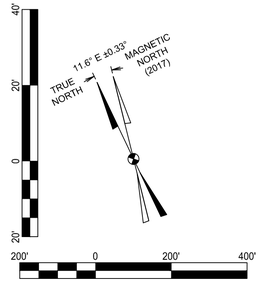
RUNWAY 28R INNER APPROACH PLAN & PROFILE

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RUNWAY 10L INNER APPROACH PLAN VIEW





LEGEND	EXISTING	PROPOSED
APPROACH SURFACE	AS	AS
DEPARTURE SURFACE	DS	N/A
THRESHOLD SITING SURFACE	TSS	TSS
PAPI OBSTACLE CLEARANCE SURFACE	PAPI	PAPI
RUNWAY SAFETY AREA	RSA	N/A
RUNWAY OBJECT FREE AREA	ROFA	N/A
RUNWAY OBSTACLE FREE ZONE	ROFZ	N/A
RUNWAY PROTECTION ZONE	RPZ	RPZ
PROPERTY LINE		N/A
LOC CRITICAL AREA		N/A
EXTENDED RUNWAY C.L.		N/A
RUNWAY		N/A
TRAVERSEWAY	T T	N/A
CRITICAL GROUND PROFILE		N/A
PROPOSED BUILDINGS - LONG-TERM	N/A	
PROPOSED DEMOLITION - LONG-TERM	N/A	

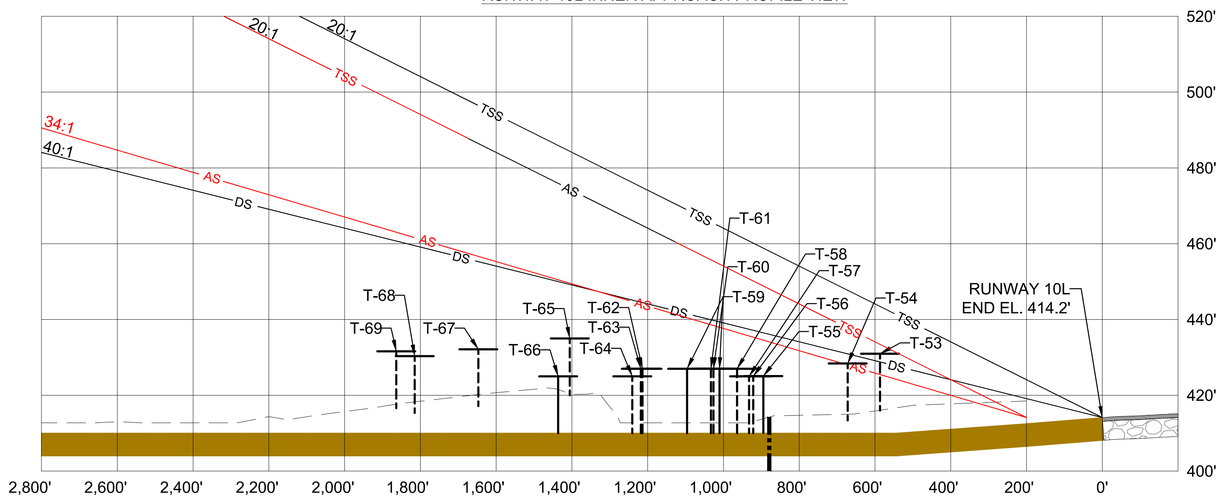
RUNWAY 28R SIGNIFICANT OBJECT AND TRAVERSEWAY TABLE

OBJECT ID	DESCRIPTION	SURVEY DATE	50:1 PART 77 APPROACH SURFACE PENETRATION	20:1 THRESHOLD SITING SURFACE PENETRATION	40:1 DEPARTURE SURFACE PENETRATION	30:1 GLIDESLOPE QUALIFICATION SURFACE	TRAVERSEWAY ELEVATION (MSL)	TRAVERSEWAY ELEVATION (AGL)	TRIGGERING EVENT	PROPOSED DISPOSITON
T-42	AERO DR.	6/18/2018	-3.73	-89.84	-13.09	-22.02	433.71	15.00	NONE	NONE
T-43	AIRPORT RD.	6/18/2018	1.01	-87.44	-8.74	-18.32	440.00	10.00	NONE	NONE
T-44	AIRPORT RD.	6/18/2018	-4.69	-98.40	-15.31	-26.36	437.82	10.00	NONE	NONE
T-45	RUFFIN RD.	6/18/2018	-87.82	-241.82	-108.50	-136.29	394.87	15.00	NONE	NONE
T-46	W CANYON AVE.	6/18/2018	-112.10	-267.78	-133.05	-161.31	371.72	15.00	NONE	NONE
T-47	RUFFIN RD.	6/18/2018	-147.02	-312.00	-169.52	-200.36	343.00	15.00	NONE	NONE
T-48	GRANITE RIDGE DR.	6/18/2018	-154.49	-326.80	-178.21	-211.09	340.41	15.00	NONE	NONE
T-49	DALEY CENTER DR.	6/18/2018	-166.71	-345.02	-191.44	-225.98	332.19	15.00	NONE	NONE
T-50	MURPHY CANYON RD.	6/18/2018	-252.84	-434.85	-278.18	-313.75	248.53	15.00	NONE	NONE
T-51	AERO DR.	6/18/2018	-274.28	-471.45	-302.14	-341.93	237.20	17.00	NONE	NONE
T-52	DALEY CENTER DR.	6/18/2018	-240.16	-447.50	-269.72	-312.33	278.10	17.00	NONE	NONE

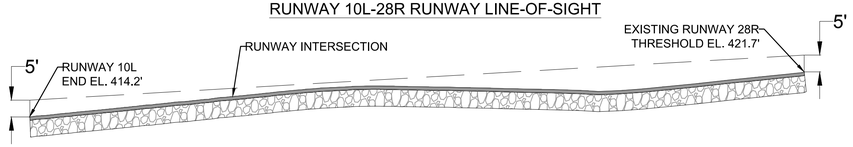
RUNWAY 10L SIGNIFICANT OBJECT AND TRAVERSEWAY TABLE

OBJECT ID	DESCRIPTION	SURVEY DATE	EXISTING 20:1 PART 77 APPROACH SURFACE PENETRATION	FUTURE 34:1 PART 77 APPROACH SURFACE PENETRATION	EXISTING 20:1 THRESHOLD SITING SURFACE PENETRATION	FUTURE 20:1 THRESHOLD SITING SURFACE PENETRATION	40:1 DEPARTURE SURFACE PENETRATION	TRAVERSEWAY ELEVATION (MSL)	TRAVERSEWAY ELEVATION (AGL)	TRIGGERING EVENT	PROPOSED DISPOSITON
T-53	KEARNY VILLA RD.	6/18/2018	N/A	7.45	-10.51	-0.51	4.16	432.96	17.00	NONE	NON-STANDARD TAKEOFF MINIMUMS
T-54	KEARNY VILLA RD.	6/18/2018	-7.35	2.36	-17.35	-7.35	-0.56	430.38	17.00	TSS CHANGE	NONE
T-55	KEARNY VILLA RD.	6/18/2018	-28.81	-14.51	-38.81	-28.81	-16.45	420.06	17.00	NONE	NONE
T-56	KEARNY VILLA RD.	6/18/2018	N/A	-8.35	-33.20	-23.20	-10.17	427.00	17.00	NONE	NONE
T-57	KEARNY VILLA RD.	6/18/2018	-30.75	-15.67	-40.75	-30.75	-17.44	420.00	17.00	NONE	NONE
T-58	CABRILLO FWY.	6/18/2018	-27.33	-11.60	-37.33	-27.33	-13.23	425.00	15.00	NONE	NONE
T-59	CABRILLO FWY.	6/18/2018	-27.65	-10.97	-37.65	-27.65	-12.40	427.00	17.00	NONE	NONE
T-60	CABRILLO FWY.	6/18/2018	N/A	-11.44	-38.46	-28.46	-12.80	427.00	17.00	NONE	NONE
T-61	CABRILLO FWY.	6/18/2018	-28.79	-11.64	-38.79	-28.79	-12.96	427.00	17.00	NONE	NONE
T-62	KEARNY MESA RD.	6/18/2018	N/A	-18.95	-49.81	-39.81	-19.48	425.00	15.00	NONE	NONE
T-63	ARMOUR ST.	6/18/2018	N/A	-17.64	-48.59	-38.59	-18.15	426.44	15.00	NONE	NONE
T-64	KEARNY MESA RD.	6/18/2018	-41.17	-19.75	-51.17	-41.17	-20.16	425.00	15.00	NONE	NONE
T-65	ARMOUR ST.	6/18/2018	N/A	-4.90	-39.73	-29.73	-4.57	444.72	15.00	NONE	NONE
T-66	KEARNY MESA RD.	6/18/2018	-50.94	-25.49	-60.94	-50.94	-25.03	425.01	15.00	NONE	NONE
T-67	KEARNY MESA RD.	6/18/2018	-54.34	-24.55	-64.34	-54.34	-23.17	432.14	15.00	NONE	NONE
T-68	ARMOUR ST.	6/18/2018	-64.56	-31.31	-74.56	-64.56	-29.19	430.32	15.00	NONE	NONE
T-69	KEARNY MESA RD.	6/18/2018	N/A	-31.45	-75.70	-65.70	-29.12	431.61	15.00	NONE	NONE

RUNWAY 10L INNER APPROACH PROFILE VIEW



RUNWAY 10L-28R RUNWAY LINE-OF-SIGHT



LOS VERTICAL SCALE
25' 0 25' 50'

LOS HORIZONTAL SCALE
450' 0 450' 800'

NOTE: AN EXAGGERATED VERTICAL SCALE WAS UTILIZED TO BETTER DEPICT THE RUNWAY LINE-OF-SIGHT ANALYSIS

NOTES:

1. ALL PRIVATE ROADS/ROADWAYS/INTERSTATES/RAILROADS ARE DEPICTED 10/15/17/23 FEET HIGHER, RESPECTIVELY, THAN THE SURVEYED LOCATION PER FAA SOP NO. 200
2. TAXIWAY TRAVERSEWAY ELEVATIONS ARE BASED OFF OF THE CRITICAL AIRCRAFT (BEECHCRAFT KING AIR 350) WHICH HAS A TAIL HEIGHT OF 14.33 FEET.
3. ANY TRAVERSEWAYS EXCLUDED FROM THIS PORTION OF THE STUDY CAN BE FOUND ON THE AIRPORT PART 77 AIRSPACE SHEET (SHEET 5 and 6).
4. FAR PART 77 IMAGINARY SURFACES ARE AS SHOWN ON THIS SHEET FOR THE MONTGOMERY-GIBBS EXECUTIVE AIRPORT. THESE SURFACES ARE DEPICTED BASED UPON EXISTING AND ULTIMATE AIRPORT DEVELOPMENT.

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The City of SAN DIEGO

AIRPORT LAYOUT PLAN UPDATE
MONTGOMERY-GIBBS EXECUTIVE AIRPORT
CITY OF SAN DIEGO CALIFORNIA

MARK	DATE	DESCRIPTION
		REVISIONS
PROJECT NO:		Q74.001.001
DATE:		OCTOBER 2019
DRAWN BY:		K.A. KRIER
DESIGNED BY:		K.A. KRIER
CHECKED BY:		A.M. MARRON

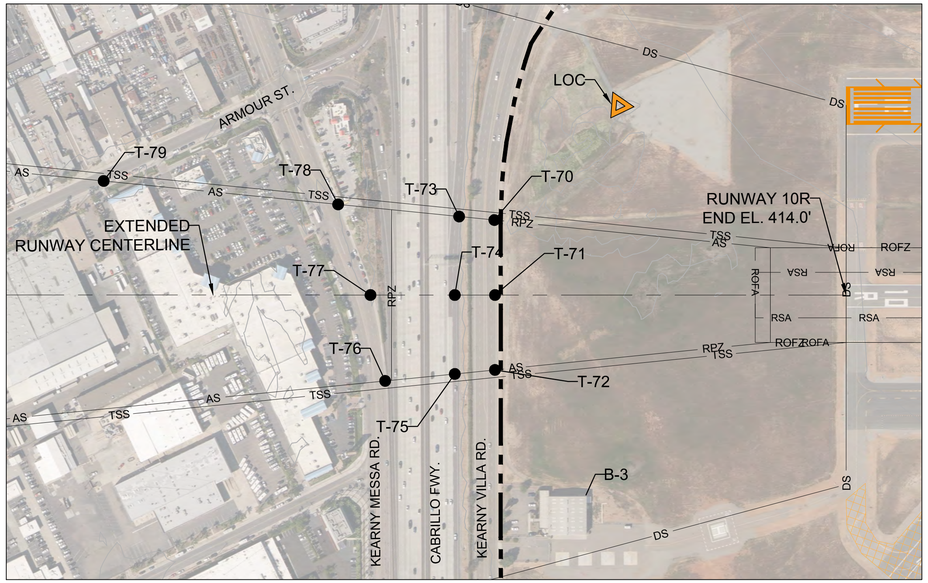
RUNWAY 10L INNER APPROACH PLAN & PROFILE AND DATA

8 of 12

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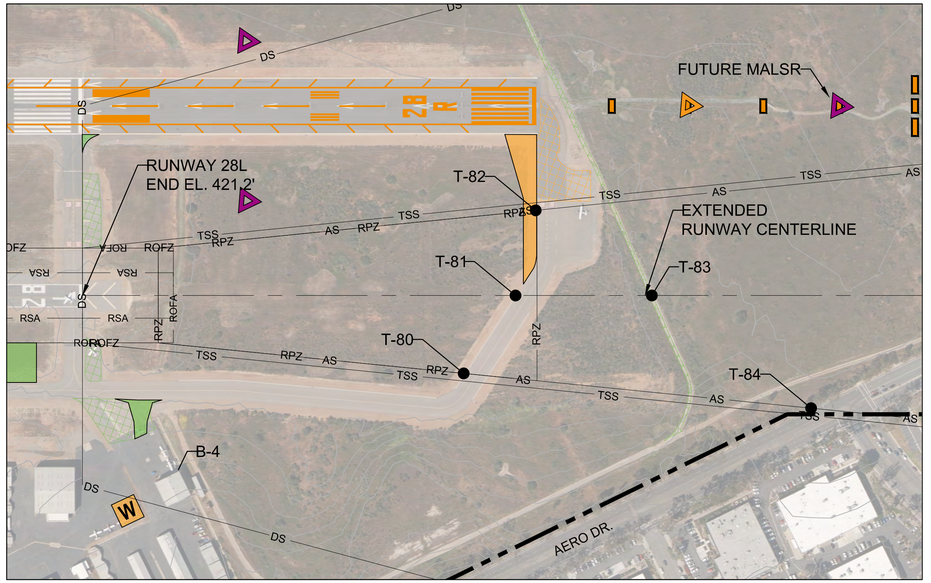
RUNWAY 10R INNER APPROACH PLAN VIEW



200' 0 200' 400'

TRUE NORTH — 11.6° E ±0.33° — MAGNETIC NORTH (2017)

RUNWAY 28L INNER APPROACH PLAN VIEW

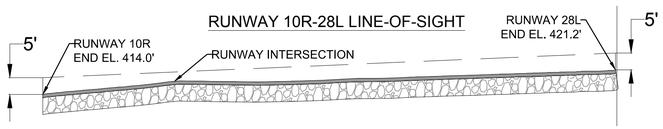


NOTE: AN EXAGGERATED VERTICAL SCALE WAS UTILIZED TO BETTER DEPICT THE RUNWAY LINE-OF-SIGHT ANALYSIS

LOS VERTICAL SCALE
22.5' 0 22.5' 50'

LOS HORIZONTAL SCALE
450' 0 450' 800'

RUNWAY 10R-28L LINE-OF-SIGHT



RUNWAY 10R SIGNIFICANT OBJECT AND TRAVERSEWAY TABLE

OBJECT ID	DESCRIPTION	SURVEY DATE	20:1 PART 77 APPROACH SURFACE PENETRATION	20:1 THRESHOLD SITING SURFACE PENETRATION	40:1 DEPARTURE SURFACE PENETRATION	TRAVERSEWAY ELEVATION (MSL)	TRAVERSEWAY ELEVATION (AGL)	TRIGGERING EVENT	PROPOSED DISPOSITON
T-70	KEARNY VILLA RD.	11/1/2017	-20.32	-30.32	-7.10	427.00	17.00	NONE	NONE
T-71	KEARNY VILLA RD.	11/1/2017	-20.23	-30.23	-7.06	427.00	17.00	NONE	NONE
T-72	KEARNY VILLA RD.	11/1/2017	-20.24	-30.24	-7.06	427.00	17.00	NONE	NONE
T-73	CABRILLO FWY.	11/1/2017	-24.97	-34.97	-9.43	427.00	17.00	NONE	NONE
T-74	CABRILLO FWY.	11/1/2017	-25.54	-35.54	-9.71	427.00	17.00	NONE	NONE
T-75	CABRILLO FWY.	11/1/2017	-25.54	-35.54	-9.71	427.00	17.00	NONE	NONE
T-76	KEARNY MESA RD.	11/1/2017	-36.73	-46.73	-16.31	425.00	15.00	NONE	NONE
T-77	KEARNY MESA RD.	11/1/2017	-38.66	-48.66	-17.28	425.00	15.00	NONE	NONE
T-78	KEARNY MESA RD.	11/1/2017	-42.93	-52.93	-19.41	425.00	15.00	NONE	NONE
T-79	ARMOUR ST.	11/1/2017	-73.90	-83.90	-34.91	424.97	15.00	NONE	NONE
B-3	BUILDING	11/1/2017	N/A	N/A	11.54	442.23	27.74	NONE	NOTED IN TAKEOFF MINIMUMS

NOTE: ALL PRIVATE ROADS/ROADWAYS/INTERSTATES/RAILROADS ARE DEPICTED 10/15/17/23 FEET HIGHER, RESPECTIVELY, THAN THE SURVEYED LOCATION PER FAA SOP NO. 200

LEGEND

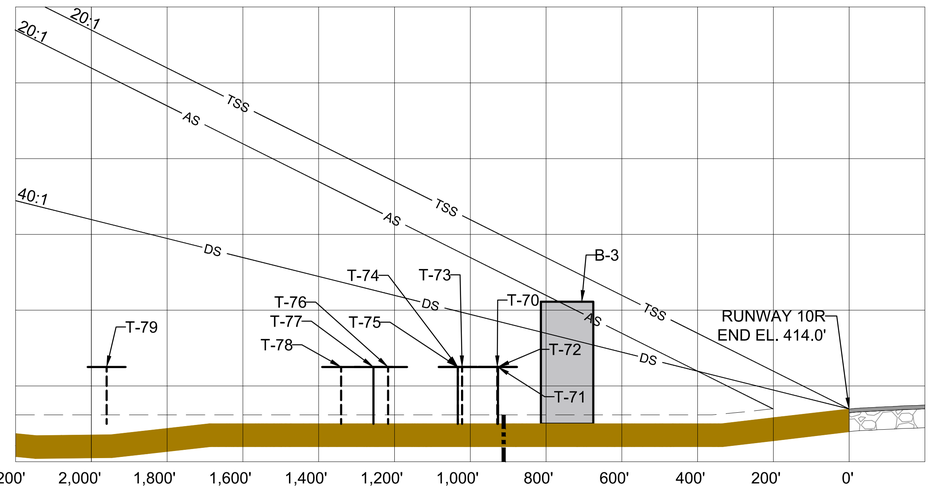
	EXISTING	PROPOSED
APPROACH SURFACE	AS	N/A
DEPARTURE SURFACE	DS	N/A
THRESHOLD SITING SURFACE	TSS	N/A
RUNWAY SAFETY AREA	RSA	N/A
RUNWAY OBJECT FREE AREA	ROFA	N/A
RUNWAY OBSTACLE FREE ZONE	ROFZ	N/A
RUNWAY PROTECTION ZONE	RPZ	N/A
PROPERTY LINE		N/A
EXTENDED RUNWAY C.L.		N/A
RUNWAY		N/A
TRAVERSEWAY		N/A
CRITICAL GROUND PROFILE		N/A
BUILDING OBSTRUCTIONS		N/A
PROPOSED PAVEMENT - SHORT-TERM	N/A	
PROPOSED DEMOLITION - SHORT-TERM	N/A	
PROPOSED PAVEMENT - ULTIMATE	N/A	
PROPOSED DEMOLITION - LONG-TERM	N/A	
PROPOSED AIRCRAFT WASH RACK	N/A	W

RUNWAY 28L SIGNIFICANT OBJECT AND TRAVERSEWAY TABLE

OBJECT ID	DESCRIPTION	SURVEY DATE	20:1 PART 77 APPROACH SURFACE PENETRATION	20:1 THRESHOLD SITING SURFACE PENETRATION	40:1 DEPARTURE SURFACE PENETRATION	TRAVERSEWAY ELEVATION (MSL)	TRAVERSEWAY ELEVATION (AGL)	TRIGGERING EVENT	PROPOSED DISPOSITON
T-80	TAXIWAY A	11/1/2017	-25.99	-35.99	-10.83	434.33	14.33	NONE	NONE
T-81	TAXIWAY A	11/1/2017	-32.84	-42.84	-14.25	434.33	14.33	NONE	NONE
T-82	TAXIWAY A	11/1/2017	-35.49	-45.49	-15.58	434.33	14.33	NONE	NONE
T-83	AIRPORT RD.	11/1/2017	-55.15	-65.15	-27.58	430.00	10.00	NONE	NONE
T-84	AERO DR.	11/1/2017	-72.88	-82.88	-34.80	433.29	15.00	NONE	NONE
B-4	BUILDING	11/1/2017	N/A	N/A	9.46	440.85	25.10	NONE	NOTED IN TAKEOFF MINIMUMS

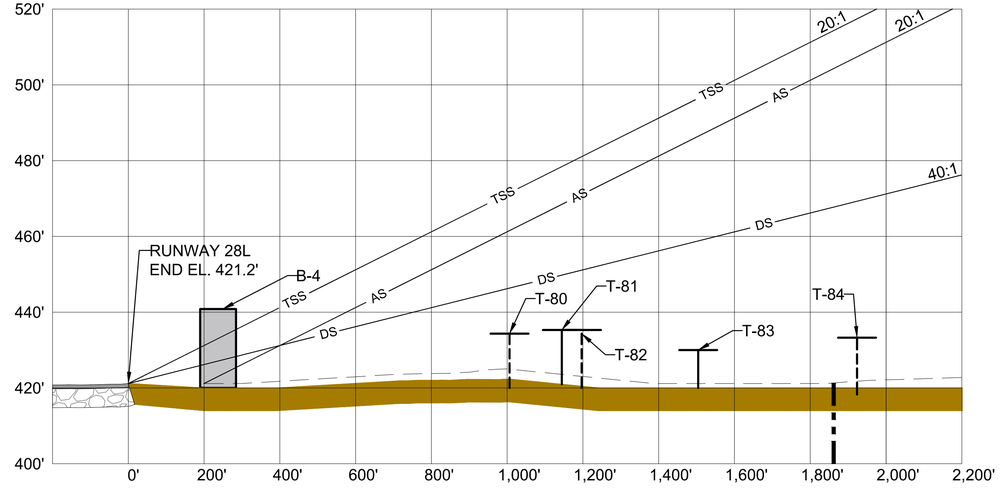
NOTE: TAXIWAY ABOVE GROUND HEIGHT (AGL) WAS DERIVED FROM CURRENT RUNWAY CRITICAL AIRCRAFT TAIL HEIGHT

RUNWAY 10R INNER APPROACH PROFILE VIEW



20' 0 20' 40'

RUNWAY 28L INNER APPROACH PROFILE VIEW



C&S COMPANIES
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The City of SAN DIEGO

AIRPORT LAYOUT PLAN UPDATE
MONTGOMERY-GIBBS EXECUTIVE AIRPORT
CITY OF SAN DIEGO
CALIFORNIA

MARK	DATE	DESCRIPTION

REVISIONS

PROJECT NO: Q74.001.001
DATE: OCTOBER 2019
DRAWN BY: K.A. KRIER
DESIGNED BY: K.A. KRIER
CHECKED BY: A.M. MARRON

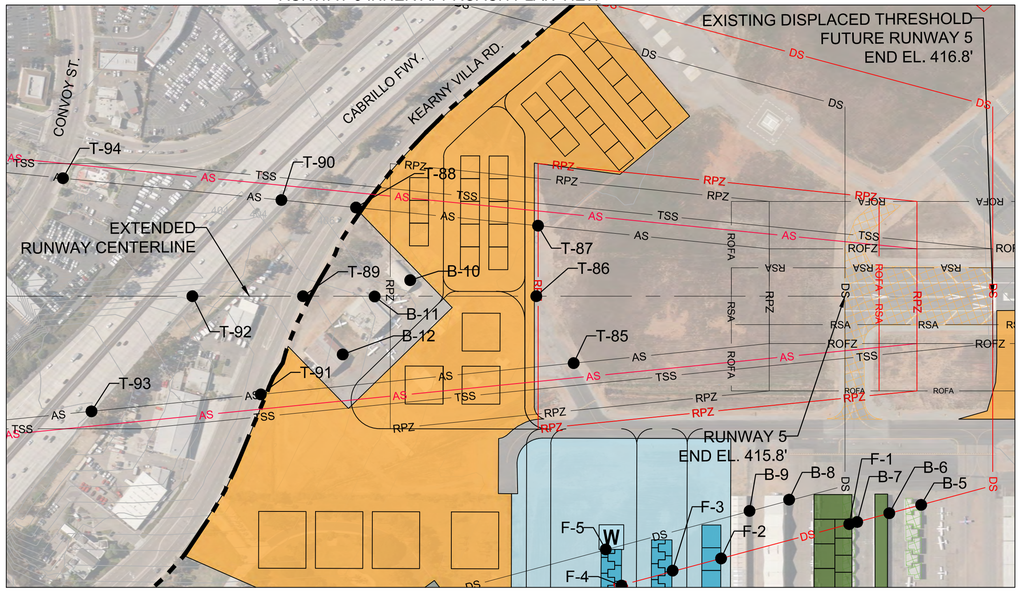
RUNWAY 10R-28L INNER APPROACH PLAN & PROFILE

9 of 12

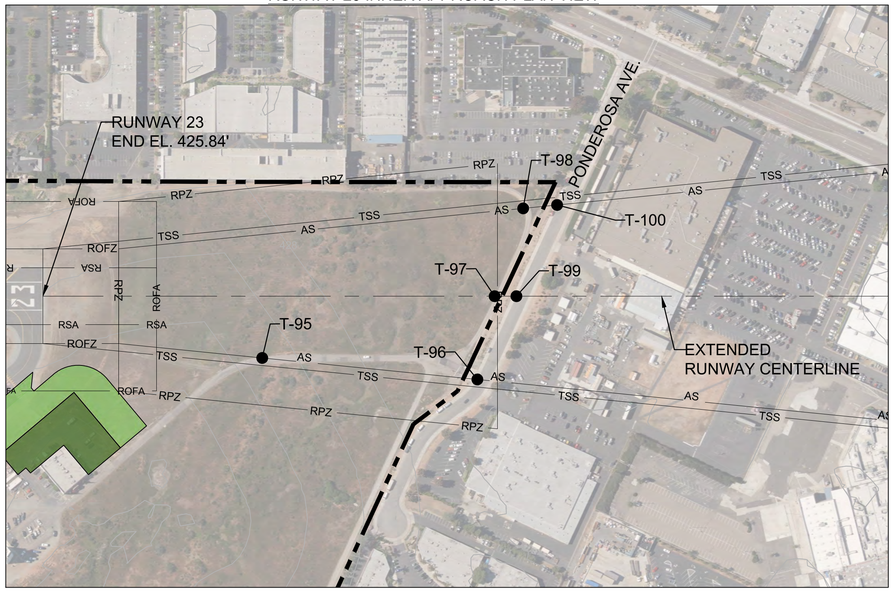
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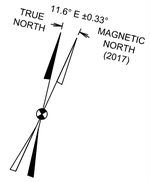
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RUNWAY 5 INNER APPROACH PLAN VIEW



RUNWAY 23 INNER APPROACH PLAN VIEW



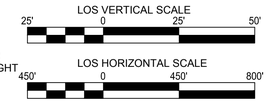


RUNWAY 5 SIGNIFICANT OBJECT AND TRAVERSEWAY TABLE

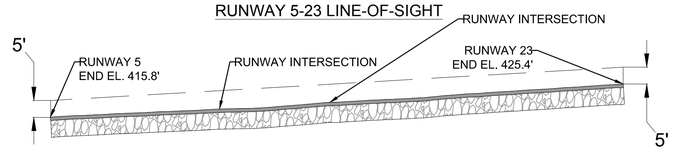
OBJECT ID	DESCRIPTION	SURVEY DATE	EXISTING 20:1 PART 77 APPROACH SURFACE PENETRATION	FUTURE 20:1 PART 77 APPROACH SURFACE PENETRATION	20:1 THRESHOLD SITING SURFACE PENETRATION	EXISTING 40:1 DEPARTURE SURFACE PENETRATION	FUTURE 40:1 DEPARTURE SURFACE PENETRATION	OBJECT/ TRAVERSEWAY ELEVATION (MSL)	OBJECT/ TRAVERSEWAY ELEVATION (AGL)	TRIGGERING EVENT	PROPOSED DISPOSITON
T-85	TAXIWAY L	11/1/2017	-17.02	-36.52	-27.02	-9.12	-13.87	424.33	14.33	NONE	NONE
T-86	TAXIWAY L	11/1/2017	-21.72	-41.22	-31.72	-11.47	-16.22	424.33	14.33	NONE	NONE
T-87	TAXIWAY L	11/1/2017	-21.95	-41.45	-31.95	-11.59	-16.34	424.33	14.33	NONE	NONE
T-88	KEARNY VILLA RD.	11/1/2017	-48.31	-67.81	-58.31	-26.04	-30.79	421.77	15.00	NONE	NONE
T-89	KEARNY VILLA RD.	11/1/2017	-59.99	-79.49	-69.99	-34.24	-38.99	417.07	15.00	NONE	NONE
T-90	CABRILLO FWY.	11/1/2017	-57.87	-77.37	-67.87	-30.68	-35.43	422.06	17.00	NONE	NONE
T-91	KEARNY VILLA RD.	11/1/2017	-68.73	-88.23	-78.73	-40.19	-44.94	413.91	15.00	NONE	NONE
T-92	CABRILLO FWY.	11/1/2017	-76.21	-95.71	-86.21	-43.15	-47.90	415.46	17.00	NONE	NONE
T-93	CABRILLO FWY.	11/1/2017	-97.87	-117.37	-107.87	-58.15	-62.90	407.12	17.00	NONE	NONE
T-94	CONVOY ST.	11/1/2017	-87.13	-106.63	-97.13	-45.53	-50.28	421.62	15.00	NONE	NONE
B-5	BUILDING	11/1/2017	N/A	N/A	N/A	N/A	7.57	427.94	15.23	RUNWAY END RELOCATION	PROPOSE NON-STANDARD DEPARTURE MINIMUMS/CLIMB RATES
B-6	BUILDING	11/1/2017	N/A	N/A	N/A	N/A	3.61	426.09	13.74	RUNWAY END RELOCATION	PROPOSE NON-STANDARD DEPARTURE MINIMUMS/CLIMB RATES
B-7	BUILDING	11/1/2017	N/A	N/A	N/A	N/A	0.19	424.78	11.77	RUNWAY END RELOCATION	PROPOSE NON-STANDARD DEPARTURE MINIMUMS/CLIMB RATES
B-8	BUILDING	11/1/2017	N/A	N/A	N/A	22.59	12.84	441.89	28.60	NONE	PROPOSE NON-STANDARD DEPARTURE MINIMUMS/CLIMB RATES
B-9	BUILDING	11/1/2017	N/A	N/A	N/A	12.48	2.73	434.45	22.42	NONE	PROPOSE NON-STANDARD DEPARTURE MINIMUMS/CLIMB RATES
B-10	BUILDING	11/1/2017	-41.41	-60.91	-51.41	-13.23	-22.98	430.50	22.10	NONE	NONE
B-11	BUILDING	11/1/2017	-37.71	-57.21	-47.71	-8.08	-17.83	437.10	30.00	NONE	NONE
B-12	BUILDING	11/1/2017	-44.27	-63.77	-54.27	-11.51	-21.26	436.80	29.50	NONE	NONE
F-1	FUTURE FACILITY	N/A	N/A	N/A	N/A	N/A	17.36	447.00	37.00	DEVELOPMENT	RELOCATE
F-2	FUTURE FACILITY	N/A	N/A	N/A	N/A	N/A	-2.28	434.00	24.00	NONE	NONE
F-3	FUTURE FACILITY	N/A	N/A	N/A	N/A	N/A	-5.13	434.00	24.00	NONE	NONE
F-4	FUTURE FACILITY	N/A	N/A	N/A	N/A	N/A	-6.06	434.00	24.06	NONE	NONE
F-5	FUTURE FACILITY	N/A	N/A	N/A	N/A	2.65	-7.08	434.00	24.06	NONE	NONE

NOTE: ALL PRIVATE ROADS/ROADWAYS/INTERSTATES/RAILROADS ARE DEPICTED 10/15/17/23 FEET HIGHER, RESPECTIVELY, THAN THE SURVEYED LOCATION PER FAA SOP NO. 200
NOTE: TAXIWAY ABOVE GROUND HEIGHT (AGL) WAS DERIVED FROM CURRENT RUNWAY CRITICAL AIRCRAFT TAIL HEIGHT

NOTE: AN EXAGGERATED VERTICAL SCALE WAS UTILIZED TO BETTER DEPICT THE RUNWAY LINE-OF-SIGHT ANALYSIS



RUNWAY 5-23 LINE-OF-SIGHT



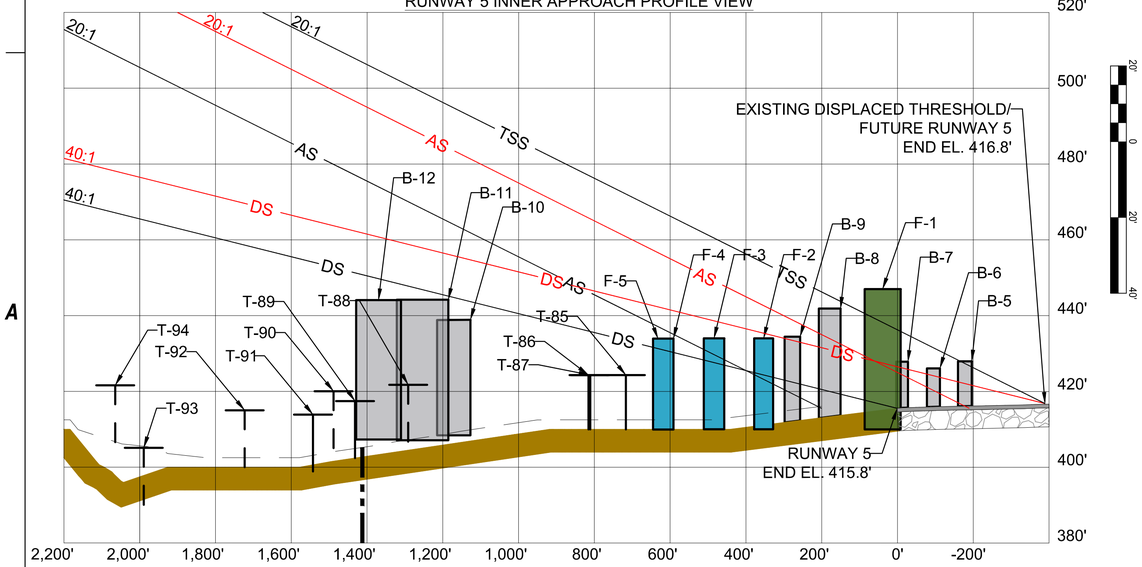
LEGEND

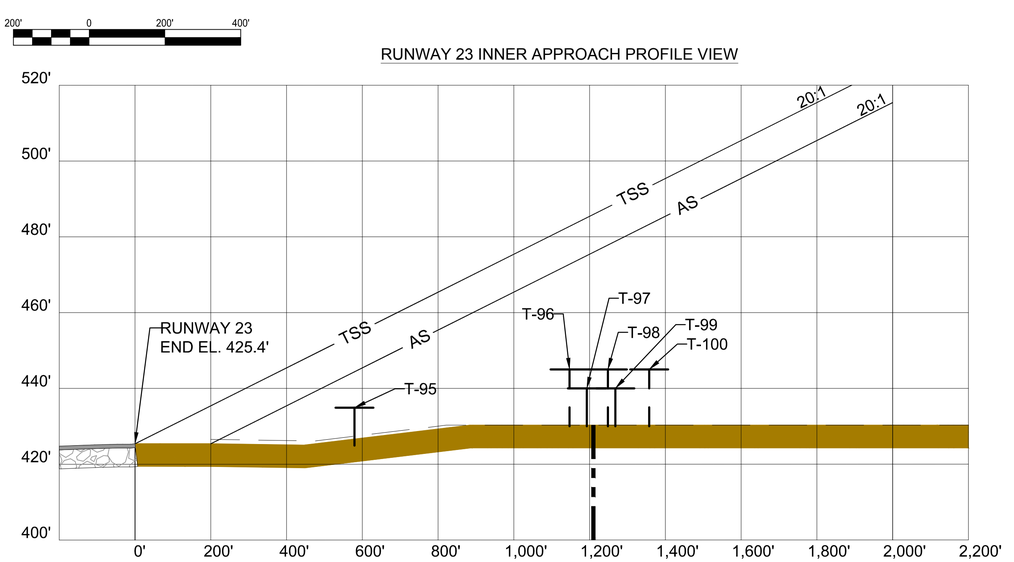
	EXISTING	PROPOSED		EXISTING	PROPOSED
APPROACH SURFACE	AS	AS	TRAVERSEWAY	T T	N/A
DEPARTURE SURFACE	DS	DS	CRITICAL GROUND PROFILE		N/A
THRESHOLD SITING SURFACE	TSS	TSS	BUILDING OBSTRUCTIONS		N/A
RUNWAY SAFETY AREA	RSA	RSA	PROPOSED PAVEMENT - SHORT-TERM	N/A	
RUNWAY OBJECT FREE AREA	ROFA	ROFA	PROPOSED DEMOLITION - SHORT-TERM	N/A	
RUNWAY OBSTACLE FREE ZONE	ROFZ	N/A	PROPOSED BUILDINGS - SHORT-TERM	N/A	
RUNWAY PROTECTION ZONE	RPZ	RPZ	PROPOSED PAVEMENT - MID-TERM	N/A	
PROPERTY LINE		N/A	PROPOSED BUILDINGS - SHORT-TERM	N/A	
EXTENDED RUNWAY C.L.		N/A	PROPOSED PAVEMENT - LONG-TERM	N/A	
RUNWAY		N/A	PROPOSED DEMOLITION - LONG-TERM	N/A	
			PROPOSED AIRCRAFT WASH RACK	N/A	W

RUNWAY 23 SIGNIFICANT OBJECT AND TRAVERSEWAY TABLE

OBJECT ID	DESCRIPTION	SURVEY DATE	20:1 PART 77 APPROACH SURFACE PENETRATION	20:1 THRESHOLD SITING SURFACE PENETRATION	TRAVERSEWAY ELEVATION (MSL)	TRAVERSEWAY ELEVATION (AGL)	TRIGGERING EVENT	PROPOSED DISPOSITON
T-94	AIRPORT RD.	11/1/2017	-9.44	-19.44	434.92	10.00	NONE	NONE
T-95	PONDEROSA AVE.	11/1/2017	-27.75	-37.75	445.00	15.00	NONE	NONE
T-96	AIRPORT RD.	11/1/2017	-35.03	-45.03	440.00	10.00	NONE	NONE
T-97	PONDEROSA AVE.	11/1/2017	-32.81	-42.81	445.00	15.00	NONE	NONE
T-98	AIRPORT RD.	11/1/2017	-38.80	-48.80	440.00	10.00	NONE	NONE
T-99	PONDEROSA AVE.	11/1/2017	-38.27	-48.27	445.00	15.00	NONE	NONE

RUNWAY 5 INNER APPROACH PROFILE VIEW





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AIRPORT LAYOUT PLAN UPDATE
MONTGOMERY-GIBBS EXECUTIVE AIRPORT
CITY OF SAN DIEGO
CALIFORNIA

MARK	DATE	DESCRIPTION

REVISIONS

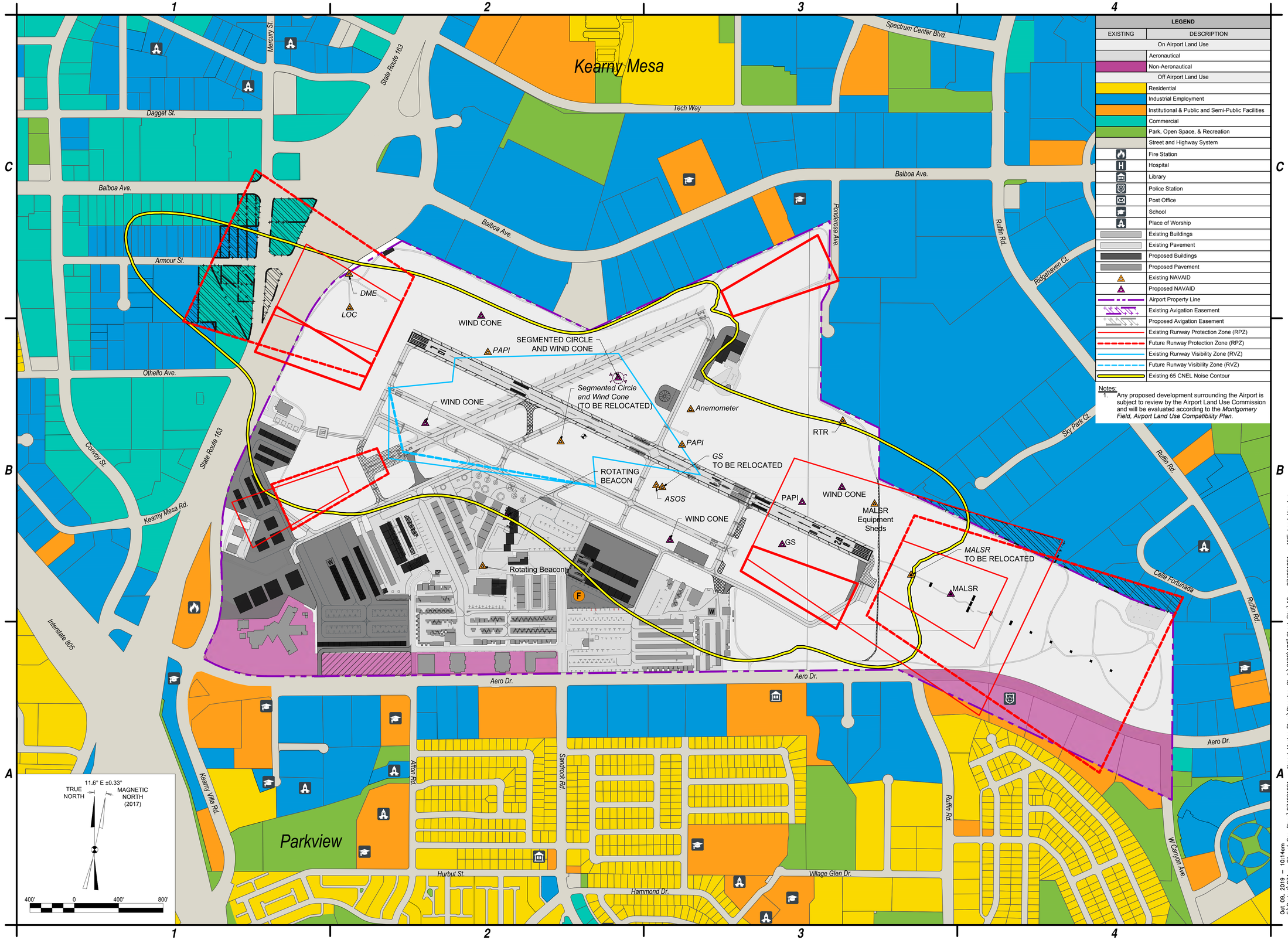
PROJECT NO: Q74.001.001
DATE: OCTOBER 2019
DRAWN BY: K.A. KRIER
DESIGNED BY: K.A. KRIER
CHECKED BY: A.M. MARRON

RUNWAY 5-23 INNER APPROACH PLAN & PROFILE

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LEGEND	
EXISTING	DESCRIPTION
	On Airport Land Use
	Aeronautical
	Non-Aeronautical
	Off Airport Land Use
	Residential
	Industrial Employment
	Institutional & Public and Semi-Public Facilities
	Commercial
	Park, Open Space, & Recreation
	Street and Highway System
	Fire Station
	Hospital
	Library
	Police Station
	Post Office
	School
	Place of Worship
	Existing Buildings
	Existing Pavement
	Proposed Buildings
	Proposed Pavement
	Existing NAVAID
	Proposed NAVAID
	Airport Property Line
	Existing Avigation Easement
	Proposed Avigation Easement
	Existing Runway Protection Zone (RPZ)
	Future Runway Protection Zone (RPZ)
	Existing Runway Visibility Zone (RVZ)
	Future Runway Visibility Zone (RVZ)
	Existing 65 CNEL Noise Contour

Notes:
1. Any proposed development surrounding the Airport is subject to review by the Airport Land Use Commission and will be evaluated according to the *Montgomery Field, Airport Land Use Compatibility Plan.*

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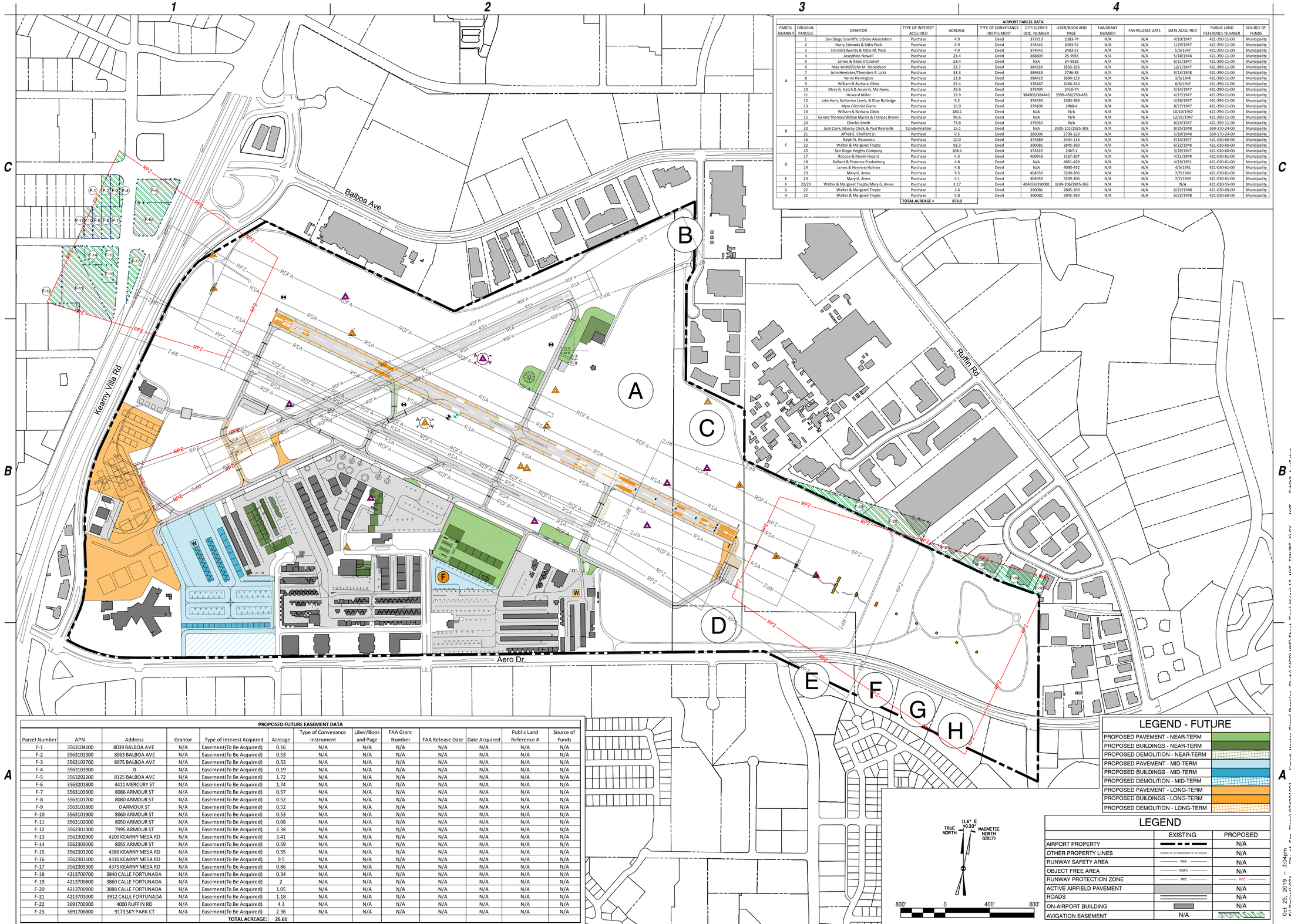
MARK	DATE	DESCRIPTION
REVISIONS		
PROJECT NO:	Q74.001.001	
DATE:	OCTOBER 2019	
DRAWN BY:	J.J. SHURER	
DESIGNED BY:	J.J. SHURER	
CHECKED BY:	N.M. ALEX	

LAND USE DRAWING

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AIRPORT PARCEL DATA

PARCEL NUMBER	ORIGINAL PARCELS	GRANTOR	TYPE OF INTEREST ACQUIRED	ACREAGE	TYPE OF CONVEYANCE INSTRUMENT	CITY CLERK'S DOC. NUMBER	LIBER/BOOK AND PAGE	FAA GRANT NUMBER	FAA RELEASE DATE	DATE ACQUIRED	PUBLIC LAND REFERENCE NUMBER	SOURCE OF FUNDS
A	1	San Diego Scientific Library Association	Purchase	4.9	Deed	373710	2383-74	N/A	N/A	4/10/1947	421-290-11-00	Municipality
	2	Harry Edwards & Kittis Peck	Purchase	4.9	Deed	374645	2403-57	N/A	N/A	1/29/1947	421-290-11-00	Municipality
	3	Harold Edwards & Kittie M. Peck	Purchase	4.9	Deed	374645	2403-57	N/A	N/A	5/3/1947	421-290-11-00	Municipality
	4	Josephine Newell	Purchase	23.4	Deed	388809	25-9955	N/A	N/A	5/18/1948	421-290-11-00	Municipality
	5	James & Reba O'Connell	Purchase	23.4	Deed	N/A	24-9526	N/A	N/A	6/21/1947	421-290-11-00	Municipality
	6	Mae Wrdell/John M. Donaldson	Purchase	23.7	Deed	384339	2533-333	N/A	N/A	12/1/1947	421-290-11-00	Municipality
	7	John Hewicker/Theodore F. Laist	Purchase	33.3	Deed	389635	2796-35	N/A	N/A	5/13/1948	421-290-11-00	Municipality
	8	Verna Herrington	Purchase	23.8	Deed	388420	2699-123	N/A	N/A	3/5/1948	421-290-11-00	Municipality
	9	William & Barbara Gibbs	Purchase	29.4	Deed	378167	2466-244	N/A	N/A	8/6/1947	421-290-11-00	Municipality
	10	Mary G. Hatch & Jessie G. Mathews	Purchase	29.6	Deed	375404	2416-74	N/A	N/A	5/24/1947	421-290-11-00	Municipality
	11	Howard Miller	Purchase	19.9	Deed	384803/384442	2599-456/259-485	N/A	N/A	4/17/1947	421-290-11-00	Municipality
	12	John Kent, Katherine Lewis, & Elsie Rutledge	Purchase	9.2	Deed	374593	2383-394	N/A	N/A	4/26/1947	421-290-11-00	Municipality
	13	Myra Gilchrist Glenn	Purchase	10.0	Deed	379100	2488-4	N/A	N/A	8/27/1947	421-290-11-00	Municipality
	14	William & Barbara Gibbs	Purchase	180.1	Deed	N/A	N/A	N/A	N/A	10/10/1947	421-290-11-00	Municipality
	15	Gerald Thomas/Willian Myrick & Frances Brown	Purchase	98.6	Deed	N/A	N/A	N/A	N/A	12/31/1947	421-290-11-00	Municipality
	24	Charles Smith	Purchase	74.8	Deed	379569	N/A	N/A	N/A	8/24/1947	421-290-11-00	Municipality
B	20	Jack Clark, Murray Clark, & Paul Reynolds	Condemnation	19.1	Deed	N/A	2925-101/2925-103	N/A	N/A	8/25/1948	369-170-24-00	Municipality
	21	Alfred E. Chalfant Jr.	Purchase	9.5	Deed	389006	2790-129	N/A	N/A	5/10/1948	369-170-24-00	Municipality
C	16	Ralph N. Rousseau	Purchase	10.0	Deed	374889	2404-116	N/A	N/A	5/13/1947	421-030-60-00	Municipality
	22	Walter & Margaret Trepte	Purchase	92.3	Deed	390081	2845-269	N/A	N/A	6/22/1948	421-030-60-00	Municipality
	25	San Diego Heights Company	Purchase	108.1	Deed	373622	2367-2	N/A	N/A	3/29/1947	421-030-60-00	Municipality
D	17	Roscoe & Muriel Hazard	Purchase	4.3	Deed	400946	3167-207	N/A	N/A	4/11/1949	421-030-61-00	Municipality
	18	Delbert & Florence Fradenburg	Purchase	4.8	Deed	N/A	4061-429	N/A	N/A	4/19/1951	421-030-61-00	Municipality
	19	James & Hermine Holmes	Purchase	4.8	Deed	N/A	4040-452	N/A	N/A	4/5/1951	421-030-61-00	Municipality
	23	Mary G. Ames	Purchase	9.5	Deed	404659	3249-206	N/A	N/A	7/7/1949	421-030-61-00	Municipality
E	23	Mary G. Ames	Purchase	4.1	Deed	404659	3249-206	N/A	N/A	7/7/1949	421-030-61-00	Municipality
F	22/23	Walter & Margaret Trepte/Mary G. Ames	Purchase	3.17	Deed	404659/390081	3249-206/2845-269	N/A	N/A	N/A	421-030-55-00	Municipality
G	22	Walter & Margaret Trepte	Purchase	3.6	Deed	390081	2845-269	N/A	N/A	6/22/1948	421-030-60-00	Municipality
H	22	Walter & Margaret Trepte	Purchase	5.8	Deed	390081	2845-269	N/A	N/A	6/22/1948	421-030-60-00	Municipality
			TOTAL ACREAGE =	873.0								

PROPOSED FUTURE EASEMENT DATA

Parcel Number	APN	Address	Grantor	Type of Interest Acquired	Acreage	Type of Conveyance Instrument	Liber/Book and Page	FAA Grant Number	FAA Release Date	Date Acquired	Public Land Reference #	Source of Funds
F-1	3563104100	8039 BALBOA AVE	N/A	Easement(To Be Acquired)	0.16	N/A	N/A	N/A	N/A	N/A	N/A	N/A
F-2	3563101300	8063 BALBOA AVE	N/A	Easement(To Be Acquired)	0.53	N/A	N/A	N/A	N/A	N/A	N/A	N/A
F-3	3563103700	8075 BALBOA AVE	N/A	Easement(To Be Acquired)	0.53	N/A	N/A	N/A	N/A	N/A	N/A	N/A
F-4	3563103900	0	N/A	Easement(To Be Acquired)	0.19	N/A	N/A	N/A	N/A	N/A	N/A	N/A
F-5	3563202200	8125 BALBOA AVE	N/A	Easement(To Be Acquired)	1.72	N/A	N/A	N/A	N/A	N/A	N/A	N/A
F-6	3563201800	4411 MERCURY ST	N/A	Easement(To Be Acquired)	1.74	N/A	N/A	N/A	N/A	N/A	N/A	N/A
F-7	3563103600	8086 ARMOUR ST	N/A	Easement(To Be Acquired)	0.57	N/A	N/A	N/A	N/A	N/A	N/A	N/A
F-8	3563101700	8080 ARMOUR ST	N/A	Easement(To Be Acquired)	0.52	N/A	N/A	N/A	N/A	N/A	N/A	N/A
F-9	3563101800	0 ARMOUR ST	N/A	Easement(To Be Acquired)	0.52	N/A	N/A	N/A	N/A	N/A	N/A	N/A
F-10	3563101900	8060 ARMOUR ST	N/A	Easement(To Be Acquired)	0.53	N/A	N/A	N/A	N/A	N/A	N/A	N/A
F-11	3563102000	8050 ARMOUR ST	N/A	Easement(To Be Acquired)	0.08	N/A	N/A	N/A	N/A	N/A	N/A	N/A
F-12	3562301300	7995 ARMOUR ST	N/A	Easement(To Be Acquired)	2.38	N/A	N/A	N/A	N/A	N/A	N/A	N/A
F-13	3562302900	4200 KEARNY MESA RD	N/A	Easement(To Be Acquired)	3.41	N/A	N/A	N/A	N/A	N/A	N/A	N/A
F-14	3562303000	8055 ARMOUR ST	N/A	Easement(To Be Acquired)	0.59	N/A	N/A	N/A	N/A	N/A	N/A	N/A
F-15	3562303200	4380 KEARNY MESA RD	N/A	Easement(To Be Acquired)	0.55	N/A	N/A	N/A	N/A	N/A	N/A	N/A
F-16	3562303100	4310 KEARNY MESA RD	N/A	Easement(To Be Acquired)	0.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A
F-17	3562303300	4375 KEARNY MESA RD	N/A	Easement(To Be Acquired)	0.86	N/A	N/A	N/A	N/A	N/A	N/A	N/A
F-18	4213700700	3840 CALLE FORTUNADA	N/A	Easement(To Be Acquired)	0.34	N/A	N/A	N/A	N/A	N/A	N/A	N/A
F-19	4213700800	3860 CALLE FORTUNADA	N/A	Easement(To Be Acquired)	2	N/A	N/A	N/A	N/A	N/A	N/A	N/A
F-20	4213700900	3888 CALLE FORTUNADA	N/A	Easement(To Be Acquired)	1.05	N/A	N/A	N/A	N/A	N/A	N/A	N/A
F-21	4213701000	3912 CALLE FORTUNADA	N/A	Easement(To Be Acquired)	1.18	N/A	N/A	N/A	N/A	N/A	N/A	N/A
F-22	3691700300	4000 RUFFIN RD	N/A	Easement(To Be Acquired)	4.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A
F-23	3691706800	9173 SKY PARK CT	N/A	Easement(To Be Acquired)	2.36	N/A	N/A	N/A	N/A	N/A	N/A	N/A
				TOTAL ACREAGE:	26.61							

LEGEND - FUTURE

PROPOSED PAVEMENT - NEAR-TERM	
PROPOSED BUILDINGS - NEAR-TERM	
PROPOSED DEMOLITION - NEAR-TERM	
PROPOSED PAVEMENT - MID-TERM	
PROPOSED BUILDINGS - MID-TERM	
PROPOSED DEMOLITION - MID-TERM	
PROPOSED PAVEMENT - LONG-TERM	
PROPOSED BUILDINGS - LONG-TERM	
PROPOSED DEMOLITION - LONG-TERM	

TRUE NORTH — 11.6° E ±0.33° — MAGNETIC NORTH (2017)

800' 0 400' 800'

LEGEND

	EXISTING	PROPOSED
AIRPORT PROPERTY		N/A
OTHER PROPERTY LINES		N/A
RUNWAY SAFETY AREA	RSA	N/A
OBJECT FREE AREA	RDFA	N/A
RUNWAY PROTECTION ZONE	RPZ	RPZ
ACTIVE AIRFIELD PAVEMENT		N/A
ROADS		N/A
ON-AIRPORT BUILDING		N/A
AVIGATION EASEMENT	N/A	

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The City of SAN DIEGO

AIRPORT LAYOUT PLAN UPDATE
MONTGOMERY-GIBBS EXECUTIVE AIRPORT
CITY OF SAN DIEGO CALIFORNIA

MARK	DATE	DESCRIPTION
		REVISIONS

PROJECT NO: Q74.001.001
DATE: OCTOBER 2019
DRAWN BY: K.A. KRIER
DESIGNED BY: K.A. KRIER
CHECKED BY: A.M. MARRON

Exhibit "A" Airport Property Inventory Map

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Oct 25, 2019 - 3:04pm
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Appendix O

2017 Baseline Noise and Air Quality Modeling Assumptions

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TECHNICAL MEMORANDUM

To:	Nicholas Alex, CM Project Manager/Senior Aviation Planner C&S Companies 2355 Northside Drive, Suite 350 San Diego, CA 92108
From:	Chris Nottoli, Senior Consultant
Date:	October 26, 2020
Subject:	Airport Master Plan Study for Montgomery-Gibbs Executive Airport – 2017 Baseline Noise and Air Quality Modeling Assumptions
Reference:	HMMH Project Number 308790

1. Background

HMMH is assisting the City of San Diego (California) in a Master Plan update at Montgomery-Gibbs Executive Airport (MYF). HMMH used the Aviation Environmental Design Tool, Version 2c SP2, (AEDT) to generate noise contours and air quality emissions for the MYF 2017 Master Plan baselines using the required inputs.

The subsequent sections address the AEDT inputs and results:

- Physical description of the airport layout
- Aircraft operations
- Aircraft noise and performance characteristics
- Runway utilization
- Flight track geometry and use
- Meteorological conditions
- Terrain data
- Contour results
- Aircraft Methodology and Emissions Characteristics
- Emission results

The purpose of this memorandum is to summarize the baseline aircraft noise and air quality emissions modeling assumptions, inputs, and results for the MYF Master Plan for calendar year 2017.

2. Physical Description of the Airport Layout

MYF is located in San Diego County and the City of San Diego, west of California Route 163 (Cabrillo Freeway) and directly south of Balboa Avenue. The airport layout is comprised of two parallel runways and a crosswind runway, Runway 10L/28R, Runway 10R/28L, and Runway 5/23, respectively. Figure 1 shows the current airport diagram and Table 1 provides the runway specifications used in modeling the 2017 baseline.

The runway end designating number with“0”omitted, reflects the runway magnetic heading to the nearest 10 degrees, as seen by the pilot. The two parallel runways, Runway 10L/28R and Runway 10R/28L, are oriented on approximate magnetic headings of 100° and 280° and are 4,598 feet long by 150 feet wide and 3,401 feet long by 60 feet wide, respectively. The parallel runways are distinguished from each other with letter endings “L”, meaning left, and “R”, meaning right, again, from the perspective of the pilot. The crosswind runway, Runway 5/23, is oriented on approximate magnetic headings of 50° and 230° and is 3,400 feet long by 75 feet wide.

Runway length, runway width, instrumentation, and declared distances affect which runway an aircraft will use and under what conditions, and therefore, will determine the rate of utilization of a runway relative to the other runways at the airport.

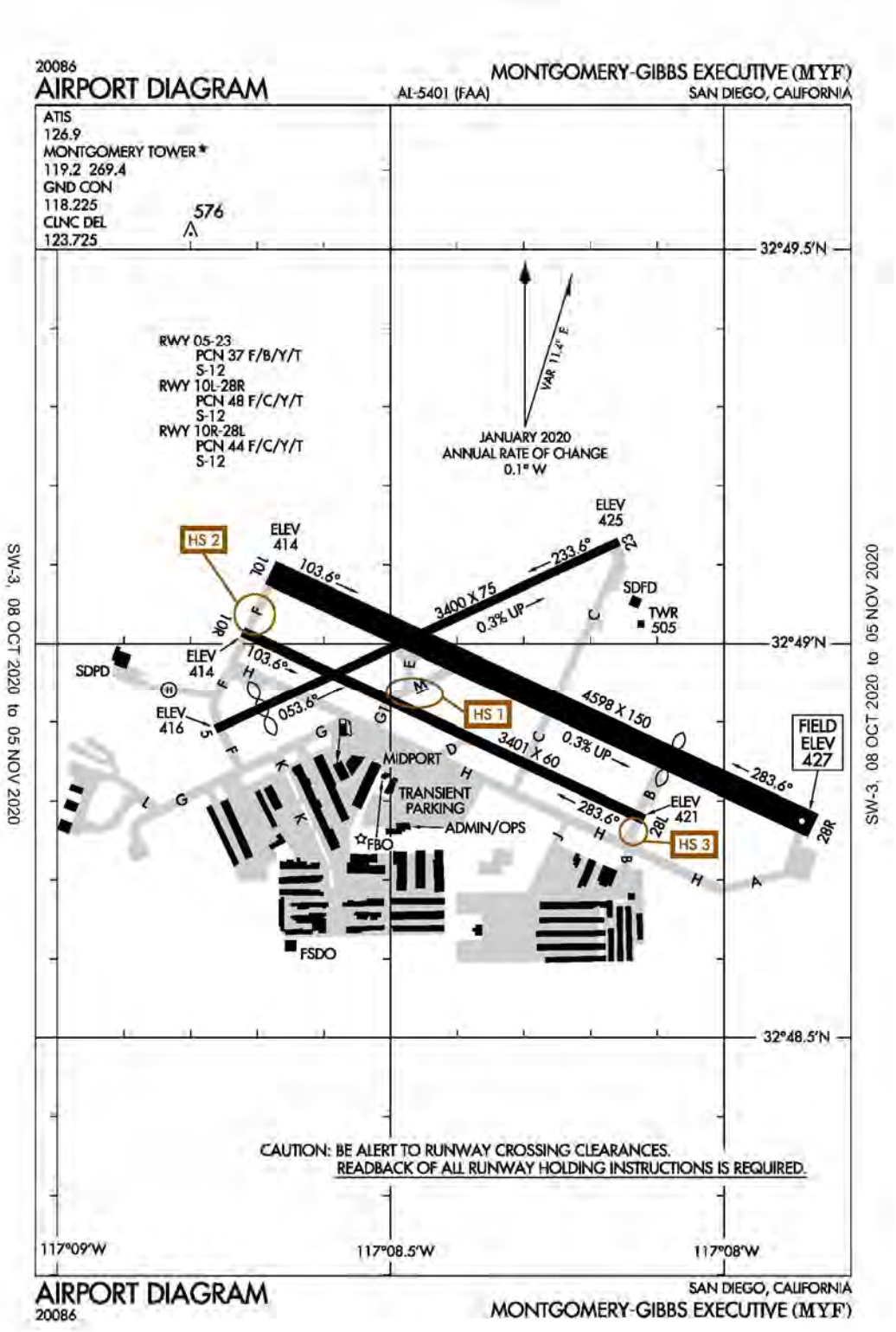


Figure 1: Baseline Airport Diagram

Source: FAA, effective, 08 October 2020 to 05 November 2020

Table 1: Current Runway Data

Source: Aviation Environmental Design Tool (AEDT) 2c Service Pack2 and C&S, 2020

Runway End	Latitude	Longitude	Elevation (ft. MSL)	Length (ft.)	Approach Angle (degrees)	Displaced Thresholds
05	32.814856	-117.146008	415.8	3,400	3	389
23	32.818806	-117.135981	425.4	3,400	3	0
10L	32.818167	-117.144683	414.2	4,598	3	0
28R	32.812828	-117.131119	427.3	4,598	3	1,199
10R	32.816922	-117.145372	414.0	3,401	3	0
28L	32.812972	-117.135339	421.2	3,401	3	0
Ⓗ*	32.815783	-117.147239	414.0	N/A	N/A	N/A

**Ⓗ denotes location of helipad*

3. Aircraft Operations

The derivation of the fleet mix utilized existing aircraft operations at MYF and includes charter, local and itinerant general aviation aircraft. The operations described below comprise the proposed baseline conditions for submittal of the MYF Master Plan. The aircraft operations data entered into AEDT includes the number of day, evening, and night arrivals, departures, and pattern/touch-and-go operations (as appropriate). The number of operations is an expression of an annual average day, determined by dividing the annual operations by 365 days. Additional inputs include taxi time and auxiliary power unit (APU) time for each aircraft where applicable. Table 2 through Table 5 list the modeled annual average day arrival, departure, and circuit operations, respectively, by aircraft type at MYF for baseline 2017 conditions.

Table 2: Modeled Average Daily Arrivals - Aircraft Fleet Mix and Operations at MYF for 2017

AEDT Type	Engine	Taxi Time (seconds)	Annual Average Day Operations – Arrivals			
			Day	Evening	Night	Total
ECLIPSE500	PW610F-A	258.8	1.459	0.128	0.084	**1.670**
LEAR35	TFE731-2-2B[1]	258.8	0.221	0.019	0.013	**0.253**
LEAR35	TFE731-3	258.8	0.299	0.026	0.017	**0.342**
LEAR35	TFE731-2-2B[1]	258.8	0.089	0.008	0.005	**0.102**
CNA560U	JT15D-5,-5A,-5B	258.8	0.151	0.013	0.009	**0.172**
CNA560E	PW530	258.8	0.151	0.013	0.009	**0.172**
CNA55B	JT15D-5,-5A,-5B	258.8	0.365	0.032	0.021	**0.418**
CNA55B	PW530	258.8	0.365	0.032	0.021	**0.418**
CNA500	BIZLIGHTJET_F	258.8	1.296	0.113	0.075	**1.484**
CNA172	O-320	277.6	12.318	1.167	0.381	**13.866**
COMSEP	TIO-540-J2B2	277.6	1.814	0.172	0.056	**2.042**
GASEPF	O-200	277.6	4.383	0.415	0.136	**4.934**
GASEPF	PT6A-42	258.8	0.645	0.035	0.050	**0.731**
GASEPF	O-320	277.6	2.267	0.215	0.070	**2.552**
GASEPF	IO-360-B	277.6	2.267	0.215	0.070	**2.552**
GASEPV	TIO-540-J2B2[2]	277.6	44.764	4.240	1.386	**50.390**
GASEPV	TIO-540-J2B2[2]	277.6	18.921	1.792	0.586	**21.299**
BEC58P	TIO-540-J2B2	277.6	6.403	0.527	0.343	**7.273**
BEC58P	TIO540[3]	277.6	6.860	0.565	0.367	**7.793**
BEC58P	TIO540[3]	277.6	4.574	0.377	0.245	**5.195**
BEC58P	TIO540[3]	277.6	5.031	0.414	0.269	**5.715**
BEC58P	TIO540[3]	277.6	0.915	0.075	0.049	**1.039**
PA42	PT6A-114A	258.8	0.733	0.040	0.057	**0.830**
DHC6	PT6A-42	258.8	3.414	0.187	0.264	**3.865**
DHC6	TPE331-10	258.8	0.361	0.020	0.028	**0.409**
EC130	TPE331-3	277.6	0.796	0.197	0.381	**1.375**
R44	TIO-540-J2B2	277.6	0.637	0.158	0.305	**1.100**
SA355F	250B17B	277.6	0.995	0.246	0.477	**1.718**
Subtotal			**122.493**	**11.443**	**5.774**	**139.710**

[1] Repeated LEAR35 aircraft with engine type TFE731-2-2B indicate multiple AEDT equipment IDs used for airframe identification
[2] Repeated GASEPV aircraft with engine type TIO-540-J2B2 indicate multiple AEDT equipment IDs used for airframe identification.
[3] Repeated BEC58P aircraft with engine type TIO540 indicate multiple AEDT equipment IDs used for airframe identification.
Note: Totals may not match exactly due to rounding. Repeated Aircraft and engine type indicates change in AEDT equipment ID.

Table 3. Modeled Average Daily Departures - Aircraft Fleet Mix and Operations at MYF for 2017

Aircraft	Engine	Taxi Time (seconds)	Stage Length	Annual Average Day Operations – Departures			
				Day	Evening	Night	Total
ECLIPSE500	PW610F-A	258.8	1	1.477	0.068	0.125	**1.670**
LEAR35	TFE731-2-2B[1]	258.8	1	0.224	0.010	0.019	**0.253**
LEAR35	TFE731-3	258.8	1	0.303	0.014	0.026	**0.342**
LEAR35	TFE731-2-2B[1]	258.8	1	0.090	0.004	0.008	**0.102**
CNA560U	JT15D-5,-5A,-5B	258.8	1	0.152	0.007	0.013	**0.172**
CNA560E	PW530	258.8	1	0.152	0.007	0.013	**0.172**
CNA55B	JT15D-5,-5A,-5B	258.8	1	0.369	0.017	0.031	**0.418**
CNA55B	PW530	258.8	1	0.369	0.017	0.031	**0.418**
CNA500	BIZLIGHTJET_F	258.8	1	1.312	0.060	0.111	**1.484**
CNA172	O-320	277.6	1	12.768	0.407	0.692	**13.866**
COMSEP	TIO-540-J2B2	277.6	1	1.880	0.060	0.102	**2.042**
GASEPF	O-200	277.6	1	4.543	0.145	0.246	**4.934**
GASEPF	PT6A-42	258.8	1	0.600	0.029	0.102	**0.731**
GASEPF	O-320	277.6	1	2.350	0.075	0.127	**2.552**
GASEPF	IO-360-B	277.6	1	2.350	0.075	0.127	**2.552**
GASEPV	TIO-540-J2B2[2]	277.6	1	46.398	1.478	2.515	**50.390**
GASEPV	TIO-540-J2B2[2]	277.6	1	19.611	0.625	1.063	**21.299**
BEC58P	TIO-540-J2B2	277.6	1	6.627	0.296	0.350	**7.273**
BEC58P	TIO540[3]	277.6	1	7.100	0.317	0.375	**7.793**
BEC58P	TIO540[3]	277.6	1	4.734	0.211	0.250	**5.195**
BEC58P	TIO540[3]	277.6	1	5.207	0.233	0.275	**5.715**
BEC58P	TIO540[3]	277.6	1	0.947	0.042	0.050	**1.039**
PA42	PT6A-114A	258.8	1	0.682	0.032	0.116	**0.830**
DHC6	PT6A-42	258.8	1	3.175	0.151	0.539	**3.865**
DHC6	TPE331-10	258.8	1	0.336	0.016	0.057	**0.409**
EC130	TPE331-3	277.6	1	0.943	0.140	0.292	**1.375**
R44	TIO-540-J2B2	277.6	1	0.754	0.112	0.233	**1.100**
SA355F	250B17B	277.6	1	1.179	0.175	0.365	**1.718**
Subtotal				**126.633**	**4.822**	**8.255**	**139.710**

[1] Repeated LEAR35 aircraft with engine type TFE731-2-2B indicate multiple AEDT equipment IDs used for airframe identification
[2] Repeated GASEPV aircraft with engine type TIO-540-J2B2 indicate multiple AEDT equipment IDs used for airframe identification.
[3] Repeated BEC58P aircraft with engine type TIO540 indicate multiple AEDT equipment IDs used for airframe identification.
Note: Totals may not match exactly due to rounding. Repeated Aircraft and engine type indicates change in AEDT equipment ID.

Table 4: Modeled Average Daily Circuits - Aircraft Fleet Mix and Operations at MYF for 2017

Aircraft	Engine	Taxi Time (seconds)	Annual Average Day Operations – Circuits			
			Day	Evening	Night	Total
CNA172	O-320	277.6	141.621	0.000	0.000	**141.621**
COMSEP	TIO-540-J2B2	277.6	20.852	0.000	0.000	**20.852**
GASEPF	O-200	277.6	50.393	0.000	0.000	**50.393**
GASEPF	O-320	277.6	26.065	0.000	0.000	**26.065**
GASEPF	IO-360-B	277.6	26.065	0.000	0.000	**26.065**
EC130	TPE331-3	277.6	0.916	0.000	0.000	**0.916**
R44	TIO-540-J2B2	277.6	3.299	0.000	0.000	**3.299**
SA355F	250B17B	277.6	1.145	0.000	0.000	**1.145**
Subtotal			**270.356**	**0.000**	**0.000**	**270.356**

Note: Totals may not match exactly due to rounding. Repeated Aircraft and engine type indicates change in AEDT equipment ID.

Table 5. Modeled Average Daily Operations at MYF for 2017

Operation	Annual Average Day Operations			
	Day	Evening	Night	Total
Arrivals	122.493	11.443	5.774	**139.710**
Departures	126.633	4.822	8.255	**139.710**
Circuits	270.356	0.000	0.000	**270.356**
Subtotal	**519.481**	**16.265**	**14.029**	**549.775**
Note: Totals may not match exactly due to rounding.				

4. Aircraft Noise and Performance Characteristics

AEDT requires the use of specific noise and performance data for each aircraft type operating at the airport. Noise data is in the form of Sound Exposure Level (SEL) at a range of distances (from 200 feet to 25,000 feet) from a particular aircraft with engines at a range of thrust levels. Performance data include thrust, speed and altitude profiles for takeoff and landing operations. The AEDT database contains standard noise and performance data for over 300 different fixed-wing aircraft types, most of which are civilian aircraft.

Within the AEDT database, it is standard for aircraft takeoff or departure profiles to be defined by a range of trip distances identified as "stage lengths." Higher stage lengths (longer trip distances) are associated with a heavier aircraft due to the increase in fuel requirements for the flight. For the MYF Master Plan, stage lengths are defined using city pair distances, determined by the great-circle distance from the originating airport to the planned arrival city.

Aside from identifying the aircraft type in the database, AEDT has STANDARD and International Civil Aviation Organization (ICAO) aircraft flight profiles for takeoffs, landings, and flight patterns or touch-and-go operations. HMMH used STANDARD profiles for all aircraft types in the modeling of the MYF Master Plan.

5. Runway Utilization

The primary factor affecting runway use at airports is weather; specifically, the wind direction and wind speed. An additional factor that may affect runway use includes the position of the facility or ramp relative to the runway.

HMMH utilized 2016 radar data obtained from the City of San Diego's Symphony EnvironmentalVue® environmental monitoring system to compile runway use tables and categorized this information by arrival or departure as well as day, evening, and night.

Table 6 and Table 7 present the preliminary runway utilization rates used to model the CNEL contours for the baseline 2017 operations at MYF. There is only one helipad used for modeling at MYF and it therefore has a utilization rate of 100%. The helipad is located northwest of Runway End 05 along Taxiway F.

Table 6. Preliminary Runway Utilization for Fixed-wing Aircraft

Operation	Runway	Day	Evening	Night
Arrival	05	0.1%	0.2%	1.4%
	23	1.0%	1.1%	1.5%
	10L	0.7%	2.5%	5.3%
	10R	0.5%	0.5%	2.3%
	28L	26.6%	9.1%	11.6%
	28R	71.1%	86.6%	77.9%
	Total	**100.0%**	**100.0%**	**100.0%**
Departure	05	1.1%	1.2%	1.3%
	23	3.2%	3.7%	0.7%
	10L	0.9%	2.1%	4.0%
	10R	0.9%	8.1%	8.5%
	28L	45.8%	34.6%	27.6%
	28R	48.1%	50.2%	57.9%
	Total	**100.0%**	**100.0%**	**100.0%**
Circuit[1]	05	0.0%	0.0%	0.0%
	23	0.1%	0.0%	0.0%
	10L	18.8%	0.0%	0.0%
	10R	0.4%	0.0%	0.0%
	28L	0.0%	0.0%	0.0%
	28R	80.7%	0.0%	0.0%
	Total	**100.0%**	**0.0%**	**0.0%**

[1] No evening or nighttime circuit operation provided in MYF fleet mix
Note: Totals may not match exactly due to rounding

Table 7. Average Daily Runway Utilization

Arrival/Departure	Runway						Total
	05	23	10L	10R	28L	28R	
Arrivals	0.1%	1.0%	0.9%	0.5%	25.2%	72.2%	**100.0%**
Departures	1.1%	3.1%	1.1%	1.5%	44.5%	48.7%	**100.0%**
Circuits	0.0%	0.1%	17.8%	0.3%	0.0%	76.1%	**100.0%**
Note: Totals may not match exactly due to rounding							

6. Flight Track Geometry and Use

HMMH used an industry-standard method to develop model tracks that entails analyzing all radar data for MYF by splitting the flight tracks into similar and manageable groups. The standard procedure entails separating tracks by operation type, (e.g., arrival or departure) and runway end. Next, the destination direction (e.g. northeast, south, west, etc.) define flight track groups. HMMH analyzed flight tracks with the same operation type, runway end, and destination direction for similar geometry and this resulted in the final flight track bundles used to create model tracks. For example, Runway 28R Arrivals (A28RJT10) that originated north of MYF were bundled into one geometrically similar group. Geometrically similar groups with wide dispersion have a 'backbone' track and one 'dispersion' sub tracks on either side of the backbone, for three tracks (one backbone and 2 'dispersion' tracks). All other geometrically similar groups were assigned one backbone track. Figure 2 through Figure 5 on pages 7 through 10 show the modeled tracks layered over the airport base map.

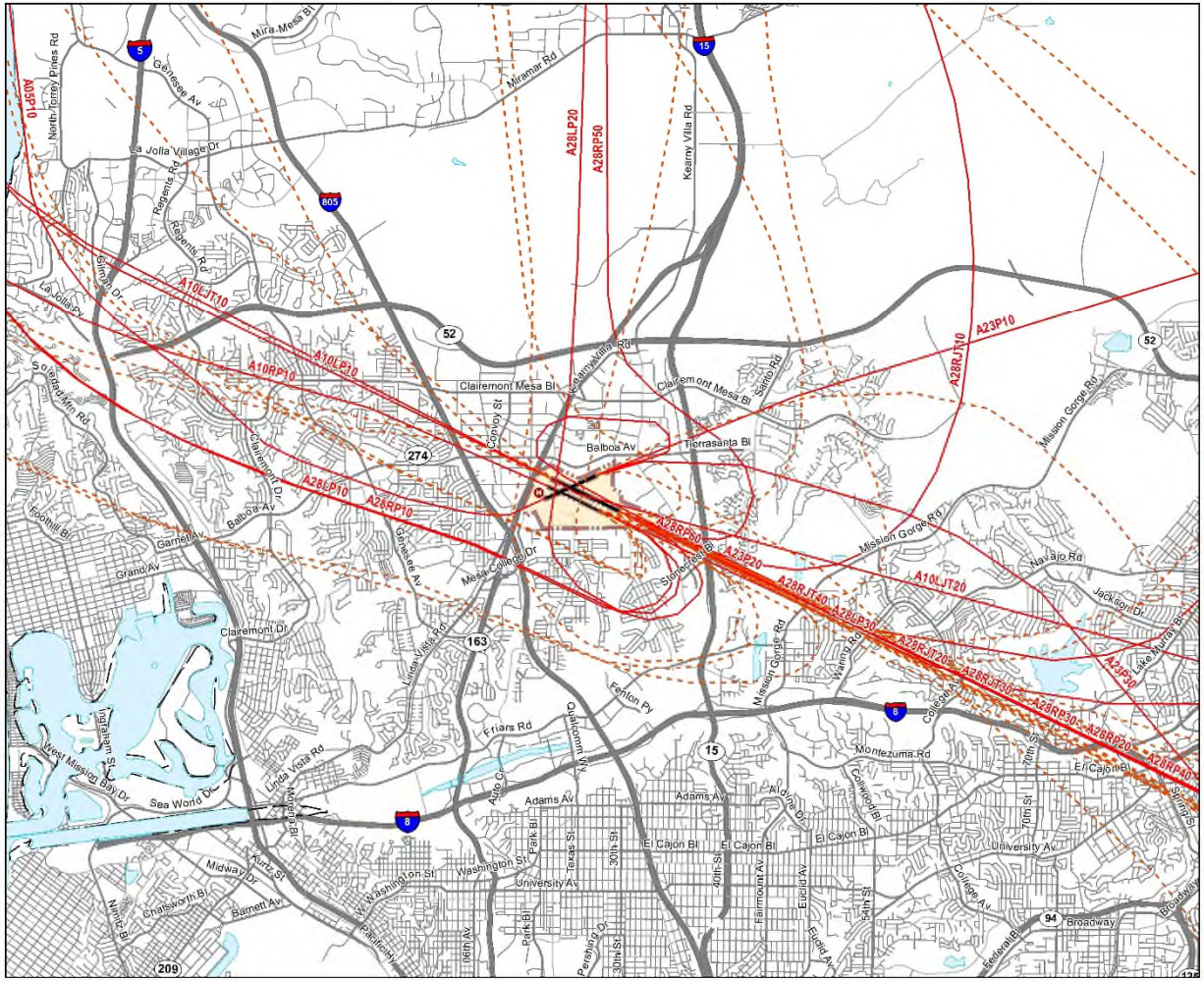


Figure 2: Fixed-Wing Arrival Model Tracks

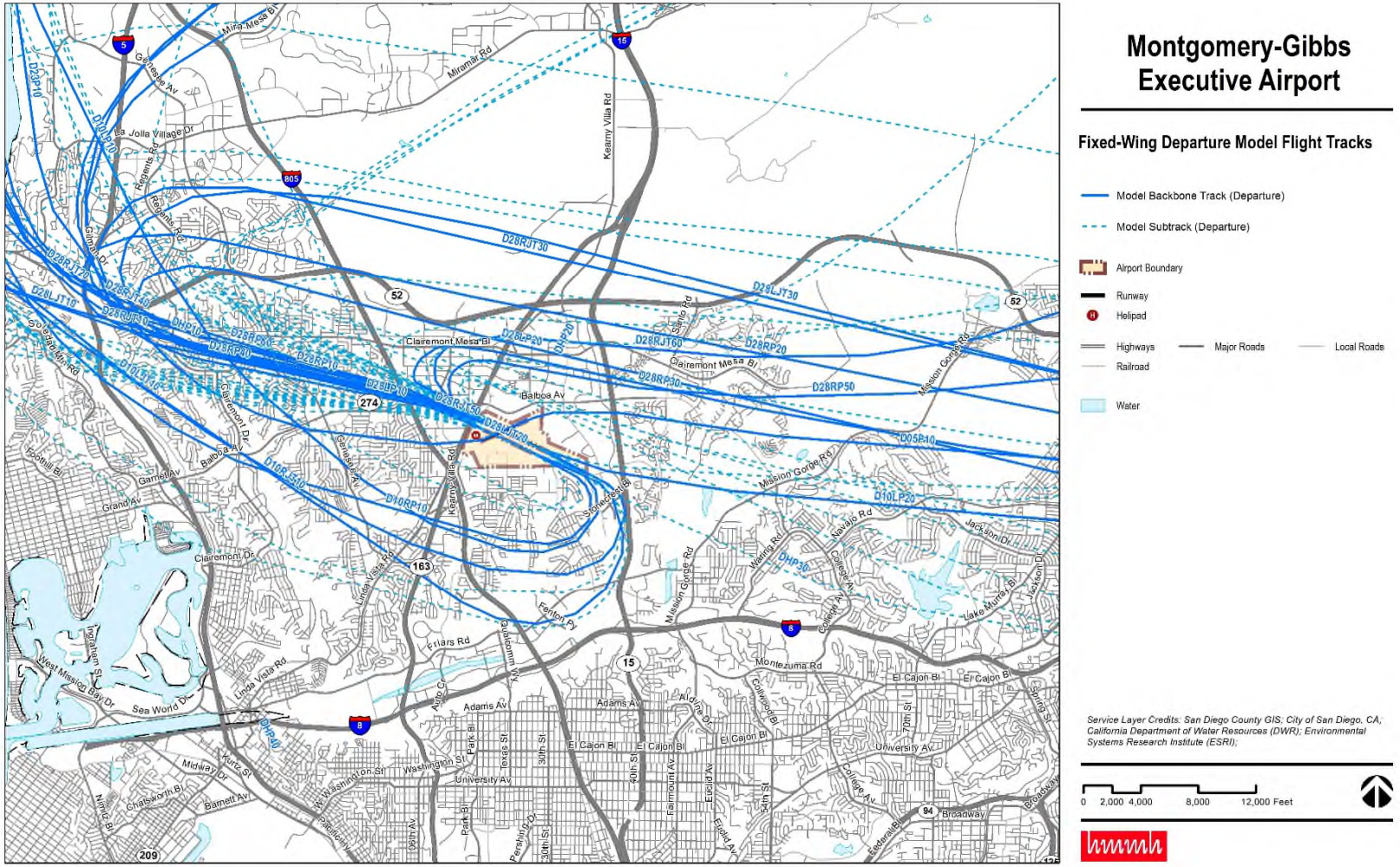


Figure 3: Fixed-Wing Departure Model Tracks

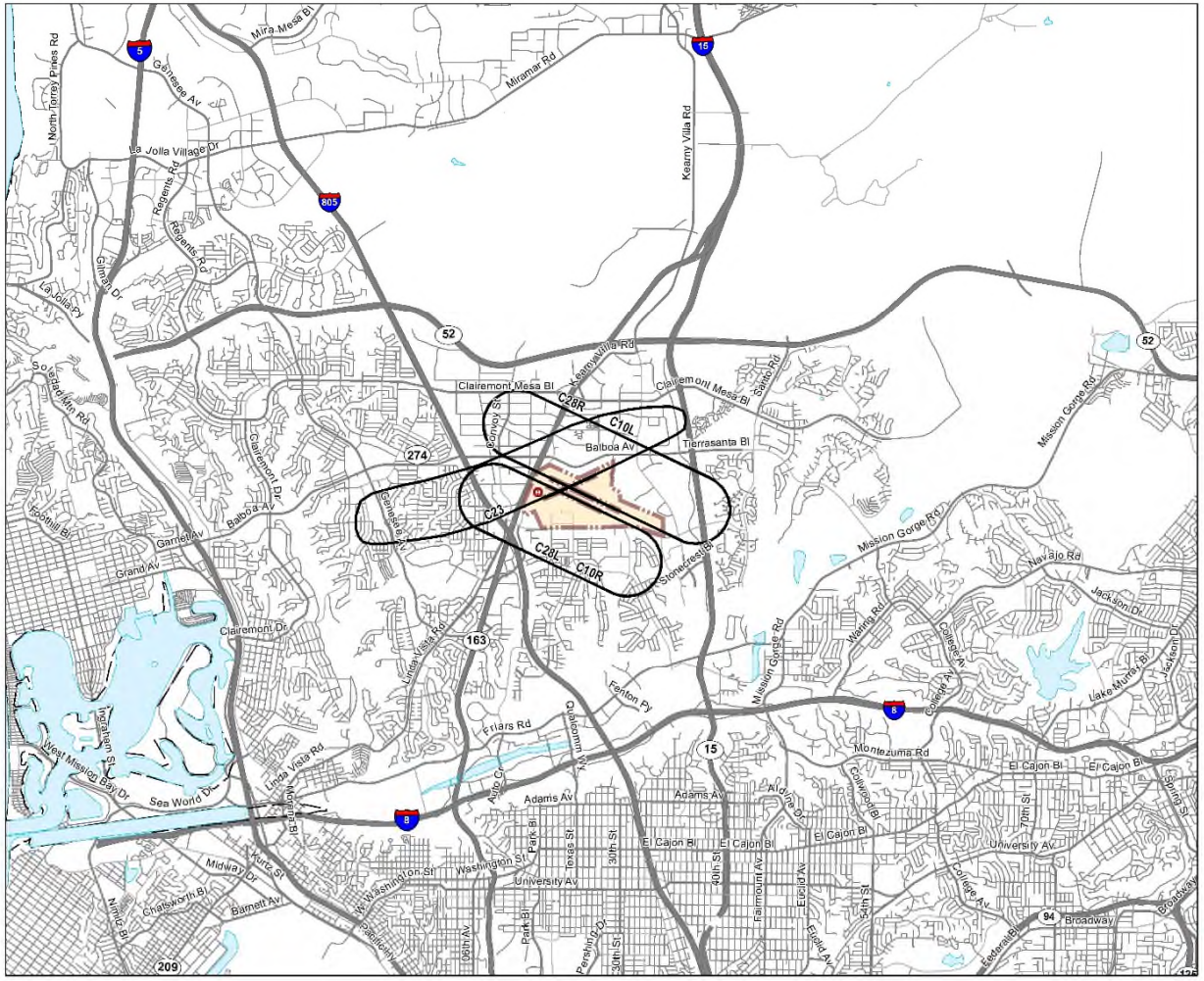


Figure 4: Fixed-Wing Circuit Model Tracks

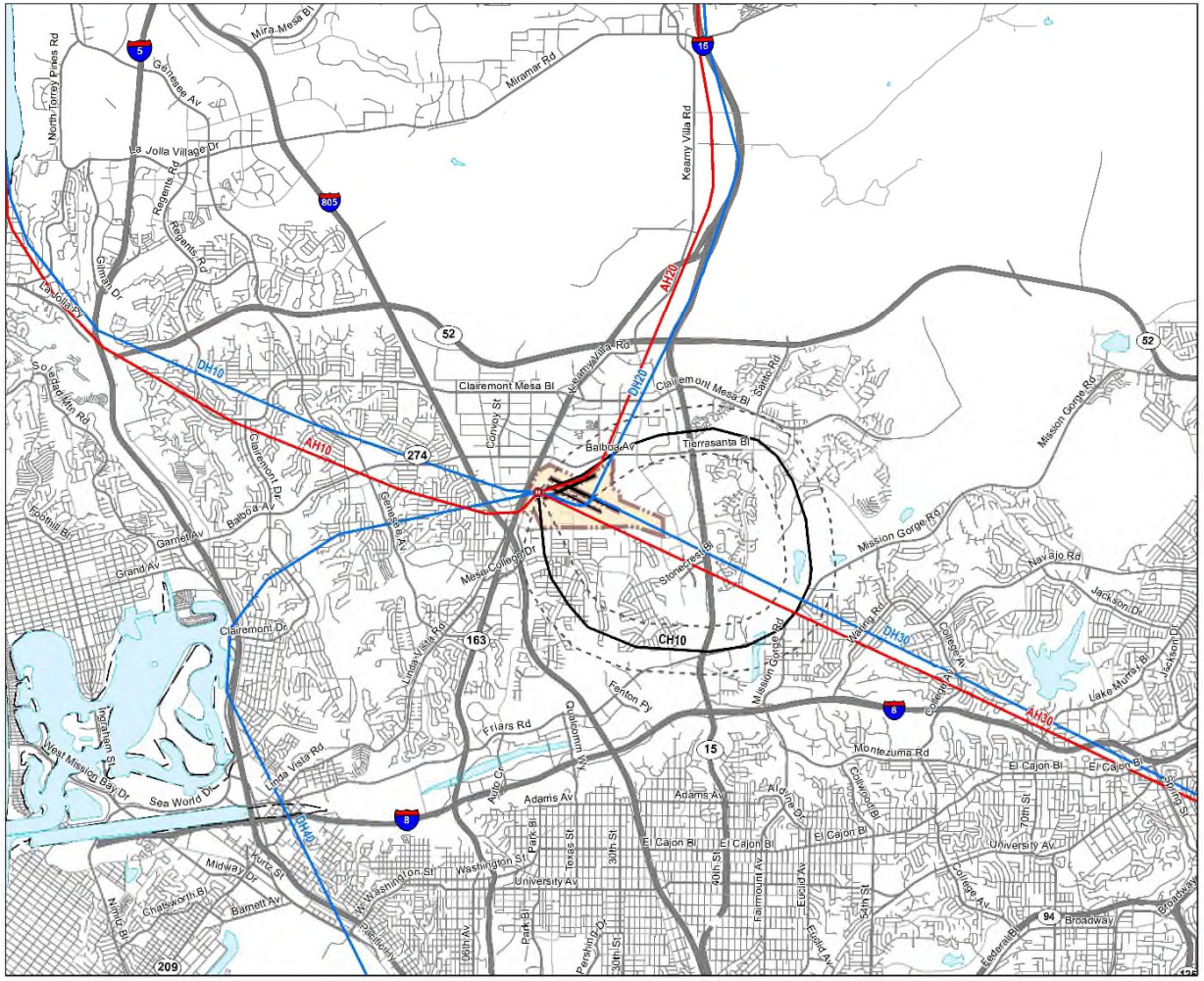


Figure 5: Helicopter Model Track

Table 8 presents the utilization rates for each of the developed model tracks. The relative ratio of flight track usage is consistent with those ratios in the entire radar dataset.

Table 8. Flight Track Utilization

Operation Type	Runway	Track ID	Percent Use
Arrivals	**05**	A05P1	100.00%
	Rwy 05 Arrival Subtotal		**100.00%**
	23	A23P1	63.00%
		A23P2	2.20%
		A23P3	34.80%
	Rwy 23 Arrival Subtotal		**100.00%**
	10L	A10LJT1	22.70%
		A10LJT2	29.10%
		A10LP1	48.20%
	Rwy 10L Arrival Subtotal		100.00%
	10R	A10RP1	100.00%
	Rwy 10R Arrival Subtotal		**100.00%**
	28L	A28LP1	76.50%
		A28LP2	12.20%
		A28LP3	11.30%
	Rwy 28L Arrival Subtotal		**100.00%**
	28R	A28RP1	15.40%
		A28RP2	16.30%
		A28RP3	9.10%
		A28RP4	9.20%
		A28RP5	4.90%
		A28RP6	11.40%
		A28RJT1	10.60%
		A28RJT2	8.10%
		A28RJT3	5.20%
		A28RJT4	9.60%
	Rwy 28R Arrival Subtotal		**100.00%**
	Ⓗ	AH1	31.40%
		AH2	26.40%
		AH3	42.10%
	Ⓗ Arrival Subtotal		100.00%
Departures	**05**	D05P1	100.00%
	Rwy 5 Departure Subtotal		100.00%
	23	D23P1	100.00%
	Rwy 23 Departure Subtotal		**100.00%**
	10L	D10LJT1	32.40%
		D10LP1	47.10%
		D10LP2	20.60%
	Rwy 10L Departure Subtotal		**100.00%**
	10R	D10RJT1	22.70%
		D10RP1	77.30%
	Rwy 10R Departure Subtotal		**100.00%**
	28L	D28LJT1	17.30%
		D28LJT2	4.10%
		D28LJT3	6.90%
		D28LP1	65.50%
		D28LP2	6.10%
	Rwy 28L Departure Subtotal		**100.00%**
	28R	D28RJT1	13.50%
		D28RJT2	4.80%
		D28RJT3	6.10%
		D28RJT4	0.90%
		D28RJT5	7.20%

Operation Type	Runway	Track ID	Percent Use
Departures (Continued)	**28R (Continued)**	D28RJT6	0.80%
		D28RP1	42.20%
		D28RP2	3.30%
		D28RP3	6.70%
		D28RP4	4.40%
		D28RP5	4.50%
		D28RP6	5.50%
	Rwy 28R Departure Subtotal		**100.00%**
	Ⓗ	DH1	36.20%
		DH2	34.80%
		DH3	10.60%
		DH4	18.40%
	Ⓗ Departure Subtotal		**100.00%**
Circuits	**05**	N/A	N/A
	Rwy 5 Circuit Subtotal		**N/A**
	23	C23	100.00%
	Rwy 23 Circuit Subtotal		**100.00%**
	10L	C10L	100.00%
	Rwy 10L Circuit Subtotal		**100.00%**
	10R	C10R	100.00%
	Rwy 10R Circuit Subtotal		**100.00%**
	28L	C28L	100.00%
	Rwy 28L Circuit Subtotal		**100.00%**
	28R	C28R	100.00%
	Rwy 28R Circuit Subtotal		**100.00%**
	Ⓗ	CH10	100.00%
	Ⓗ Circuit Subtotal		**100.00%**
Note: Totals may not match exactly due to rounding			

7. Meteorological Conditions

The AEDT has several settings that affect aircraft performance profiles and sound propagation based on meteorological data. Meteorological settings include average annual temperature, barometric pressure, and relative humidity at the airport. The AEDT holds the following default values for annual average weather conditions at MYF:

- Temperature: 62.0° F
- Sea-level Pressure: 1015.4 millibars
- Relative Humidity 67.42%
- Dew Point: 51.19° F
- Wind Speed: 5.23 Knots

8. Terrain Data

Terrain data describes the elevation of the ground surrounding the airport and on airport property. The AEDT uses terrain data to adjust the ground level under the flight paths. The terrain data does not change the aircraft's performance or noise levels, but does alter the vertical distance between the aircraft and a "receiver" on the ground. This affects assumptions about how noise propagates over ground. HMMH obtained the terrain data from the United States Department of Agriculture (USDA) Geospatial Data Gateway and utilized this in conjunction with the terrain feature of the AEDT to generate the noise contours and air quality emissions for the MYF Master Plan.

9. Contour Results

Figure 6 presents the 2017 Master Plan CNEL baseline contours at MYF.



Figure 6: CNEL Baseline Contour

10. Aircraft Methodology and Emissions Characteristics

The sources assessed in this emission inventory include aircraft engines and auxiliary power units (APU), where applicable.[1] HMMH conducted the analysis following FAA's *Aviation Emissions and Air Quality Handbook, Version 3 Update 1*[2] *and* AEDT. AEDT is the FAA-required computer model for assessing air emissions associated with airports. The fleet mix, LTO and touch and go operations were consistent with the noise analysis.

The U.S. Environmental Protection Agency (EPA) enforces the Clean Air Act (CAA), established in 1970 and last amended in 1990, which requires the review of seven criteria pollutants in analysis of air quality according to the National Ambient Air Quality Standards (NAAQS). Prior to the CAA, in 1959, the California State Department of Public Health received direction from their state legislature to develop California Ambient Air Quality Standards (CAAQS), established in 1962. In 1967, the legislature created the Air Resources Board (ARB). In 1969, the CAAQS became under the jurisdiction of the ARB, prior to any federal law on air quality.[3] CAAQS criteria pollutants include all seven NAAQS criteria pollutants, plus an additional four, two of which are covered under particulate matter, one odor-based, and the final a historical CAAQS, in place should sources of it arise again. The seven overlapping criteria air pollutants analyzed for the purposes of the MYF master plan include:[4]

1. Carbon monoxide (CO)
2. Nitrogen dioxide (NO_2); calculated and expressed as NO_x
3. Particulate matter (PM10)
4. Particulate matter (PM2.5)
5. Sulfur dioxide (SO_2)
6. Lead (Pb)
7. Ozone (O_3)

Regarding the seventh pollutant, ozone is an indirect or secondary pollutant that occurs due to chemical reactions primarily between NO_x and volatile organic compounds (VOCs). As a result, volatile organic compounds (VOCs) and NOx, the primary precursors to ozone formation, provide surrogate information for assessing ozone levels. In addition, HMMH included carbon dioxide (CO_2) emissions as a greenhouse gas, though this estimation does not account for the varying greenhouse gases and their associated emissions factors in comparison to CO_2.

AEDT requires additional input data for air quality analysis including aircraft type operating at the airport. Engine type, taxi times, and auxiliary power unit (APU) usage is needed to determine air quality pollutant emissions; including greenhouse gas emissions and fuel burn. The analysis of aircraft taxi activity to and from the ramps included both aircraft types selected from the 2017 baseline fleet mix at MYF and default taxi times from the AEDT as inputs. Similarly, HMMH assumed default AEDT APU times for each aircraft type. Annual aircraft emissions are a function of the number of aircraft operations expressed as landing and takeoff (LTO) cycles, the aircraft fleet mix (types of aircraft used), and the length of time aircraft spend in each of the modes of operation defined in AEDT. For this analysis, estimates for emissions came from the following aircraft modes[5]:

- Startup;
- Taxiing;
- Takeoff ground roll;
- Climb to mixing height and Descend from mixing height; and
- Landing ground roll.

Pollutant emissions for aircraft operations using the above assumptions were estimated using AEDT for the LTO modes and touch and go (e.g. circuit model) operations below the mixing height including idle, taxing, climb,

[1] There are no APUs currently present at MYF, so emissions data for APUs are not included in this document; should MYF acquire APUs, they would be included in air quality and emissions analysis.
[2] FAA. *Aviation Emissions and Air Quality Handbook.* https://www.faa.gov/regulations_policies/policy_guidance/envir_policy/airquality_handbook/media/Air_Quality_Handbook_Appendices.pdf
[3] ARB. 2017. *CAAQS.* https://www.arb.ca.gov/research/aaqs/caaqs/caaqs.htm. Accessed September 20, 2017.
[4] EPA. 2017. *NAAQS Table.* https://www.epa.gov/criteria-air-pollutants/naaqs-table. Accessed September 20, 2017.
[5] In the AEDT output, these modes are all represented in the "ClimbBelowMixingHeight" and "DescendBelowMixingHeight" source grouping.

and descent. Per standard, HMMH assumed a default mixing height of 3,000 feet above ground level. Lead emissions are associated with leaded aviation fuel used in GA piston engine aircraft. AEDT does not estimate lead emissions directly. Therefore, HMMH estimated these emissions consistent with FAA/EPA methodology described in the Handbook.[6]

11. Emission Results

Table 9 presents primary baseline pollutant emissions in short tons per year (TPY) for all 2017 MYF aircraft operations.[7] The first seven are the overlapping NAAQS/CAAQS criteria pollutant according to the EPA and California ARB, as discussed in Section 10. HMMH has also chosen to include short tons of CO_2 directly from AEDT for the baseline in order to continually track this number, though it is not a criteria pollutant, it is standard to report this number when assessing air quality emissions.[8]

Table 9. Baseline 2017 Aircraft Emissions (Short Tons Per Year) at MYF

Source	CO	NO_x	PM10	PM2.5	SO_2	VOC	Lead (Pb)	CO_2
Aircraft – Total	**1,462.921**	**3.757**	**1.036**	**1.036**	**1.879**	**36.644**	**1.070**	**5,062.075**
Note: All emissions were modeled using AEDT as the model and Aviation Emissions and Air Quality Handbook, Version 3 Update 1 aside from Lead (Pb) which utilized guidance given in the Handbook; specifically Equation A1-3 – Lead Emission Calculation. See Section 10 and footnote 6 for further information.								

[6] FAA. Equation A1-3 (Lead Emission Calculation) found on page 4 of Appendix A, page 119 of the full document. *Aviation Emissions and Air Quality Handbook.* https://www.faa.gov/regulations_policies/policy_guidance/envir_policy/airquality_handbook/media/Air_Quality_Handbook_Appendices.pdf

[7] APU emissions would normally be separated from aircraft emissions and both combined would be reported as a total; however, there are no APU emissions at MYF and it has therefore been excluded from the table and calculations.

[8] CO2 emissions alone do not account for the full range of greenhouse gas emissions at an airport but is a useful metric to track for that purpose.

Appendix P

Runway 28R Threshold Technical Note

Technical note

Project:	MYF AMPU		
Subject:	Runway 28R Threshold	**From:**	Anna Marron, Atkins
Date:	April 23, 2018		

The following technical note details the variables involved in the threshold relocation for Runway 28R. These variables include the following.

- Fleet mix (existing and proposed)
- RPZ Locations
- Supporting equipment relocations required
- City of San Diego Resolution R-280194
- Palomar Airport fleet mix and facilities comparison

1.1. Existing Runway 10L/28R Configuration

Montgomery-Gibbs Executive Airport (MYF) consists of three runways, two of which are parallel. Runway 10L/28R is MYF's longest runway, at 4,577 feet. **Figure 1** displays the lengths available for aircraft operations on Runway 10L/28R.

Figure 1. Existing Runway 10L/28R Available Operational Lengths



Source: Atkins analysis, 2018

Declared Distances

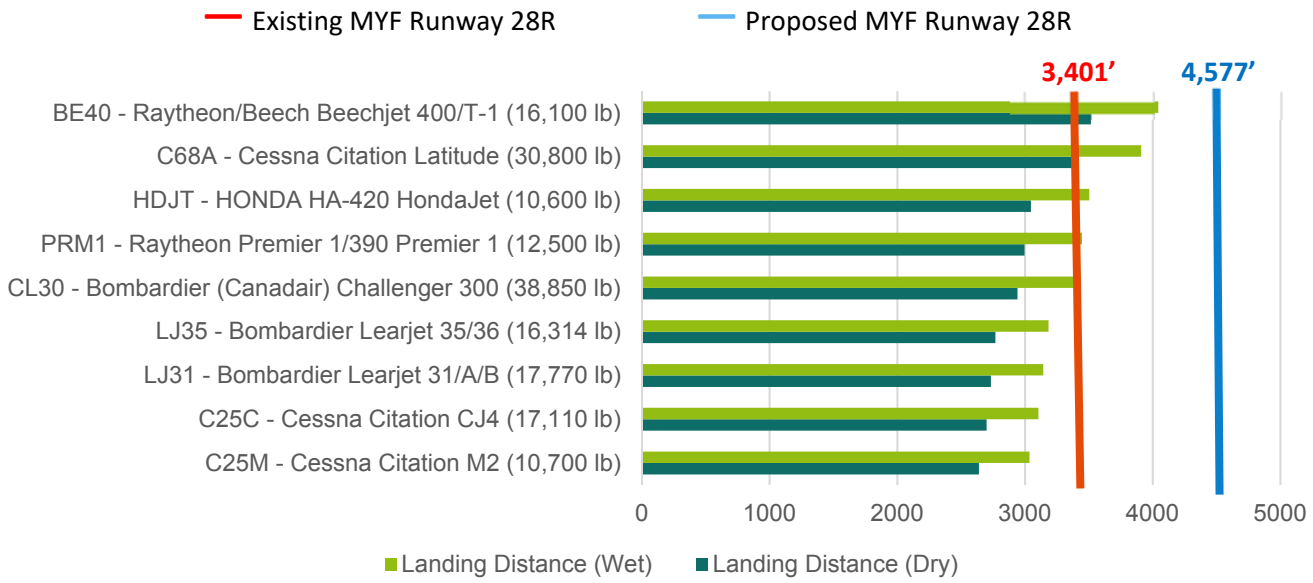
- Currently, the full runway length for 10L/28R is 4,577 feet, represented by the blue line in **Figure 1**.
- The Runway 28R threshold is displaced by 1,176 feet, represented by the white line in **Figure 1**.
- Runway 28R has a Landing Distance Available (LDA) of 3,401 feet, represented by the red line in **Figure 1** (4,577 feet – 1,176 feet = 3,401 feet).
- The displaced threshold only applies to aircraft landing on Runway 28R.
- Aircraft taking off from Runway 28R, or aircraft landing and taking off from Runway 10L may utilize the full runway length of 4,577 feet.

Technical note

Fleet Mix

Figure 2 represents operational landing distance required, based on manufacturer's specifications, for different jet aircraft currently operating at MYF. The number in parenthesis next to the aircraft model is the Maximum Takeoff Weight (MTOW) for aircraft which operated at MYF in the previous calendar year (CY). The red line indicates the LDA for the approach to Runway 28R with the displaced threshold. The blue line indicates the LDA if the threshold is removed.

Figure 2. Existing Fleet Mix – Landing Distance



Source: TFMSC Data CY 2017, Jetadvisors.com, FAA AC 150/5325-4B, Atkins Analysis 2018
Notes: Takeoff Distance at Sea Level Standard Day / MTOW / Zero Grade / Zero Wind
Landing Distance at Sea Level Standard Day - Max Landing Weight / Zero Grade / Zero Wind
Max Takeoff Weight in pounds represented by (MTOW lb)
MYF TFMSC Data CY 2017 available in Appendix A

At maximum landing weight and during wet conditions, four of the aircraft shown in Figure 2 are not able to land on Runway 28R based on manufacturer's specifications. However, in dry conditions only two aircraft currently operating at MYF can not not land on Runway 28R. It is assumed that aircraft such as the Beechjet 400, are operating at reduced operational weights in order to take off and land at MYF, but this has not been verified. It has been reported by the Air Traffic Control Tower that jet aircraft requiring a landing distance greater than or approaching the 3,401 feet available on Runway 28R, will request a circling approach to Runway 10L in order to utilize the full runway length available.

1.2. Runway Protection Zones

The Runway Protection Zone (RPZ) is a two-dimensional trapezoidal area centered along the extended runway centerline. The function of the RPZ is to enhance the protection of people and property on the ground. The RPZ trapezoid is divided into two areas, the central portion of the RPZ and the controlled activity area. The central portion of the RPZ extends the entire length of the RPZ centered on the runway centerline. The controlled activity area is the remaining area of the RPZ trapezoid on either side of the

central portion. The RPZ Trapezoid varies in size and location for each runway end based on the following variables.

- Aircraft Approach Category (AAC)
- Airplane Design Group (ADG)
- Approach visibility minimums
- Declared distances
- Incompatible land use

At MYF, the existing RPZ for Runway 28R is based on AAC -B and ADG Category II standards (referred to as B-II), with approach visibility minimums as low as ½ statute mile. The Runway 28R RPZ trapezoid starts 200 feet from the Runway 28R threshold, is centered on the extended runway centerline, and encompasses 78.9 acres. The RPZ measures 2,500 feet in length, with an inner width of 1,000 feet, and an outer width of 1,750 feet. For a depiction of the existing approach RPZ for Runway 28R see **Figure 3**.

Figure 3. Runway 28 Existing Threshold Approach RPZ



Source: Atkins Analysis, 2018

Advisory Circular (AC) 150/5300-13A, Section 3.10d, the Federal Aviation Administration (FAA) has listed land uses that are permissible within the RPZ without further evaluation. The list of permissible land uses is reproduced here for reference.

1) Farming that meets airport design standards.
2) Irrigation channels that meet the requirements of AC 150/5200-33 and FAA/USDA manual, Wildlife Hazard Management at Airports.
3) Airport service roads, as long as they are not public roads and are directly controlled by the airport operator.
4) Underground facilities, as long as they meet other design criteria, such as RSA requirements, as applicable.
5) Unstaffed NAVAIDS and facilities, such as equipment for airport facilities that are considered fixed-by-function in regard to the RPZ.

1.3. FAA RPZ Interim Guidance Memo

On September 27, 2012, the FAA issued a memorandum entitled Interim Guidance (IG) on Land Uses Within a Runway Protection Zone which clarified FAA's policy on land uses within the RPZ. That guidance stated that the FAA Office of Airports must evaluate and approve any proposed land use items located within the limits of land controlled by the airport owner of an existing or future RPZ that is not specifically allowed. In the memorandum, public roads and/or highways are noted as discouraged types of development within an RPZ and require special coordination. According to the memo, the airport sponsor must work with the FAA Airport District Office (ADO) and Regional Office to develop an alternatives analysis that will mitigate risk to people and property on the ground prior to coordinating with the FAA National Airport Planning Division (APP-400).

The current areas within the 28R RPZ which are listed as incompatible land uses are grandfathered in compliance with the FAA issued memorandum. This existing RPZ configuration has land use impacts that make up approximately 8 percent of the total RPZ area.

The proposed Runway 28R threshold relocation would be considered a modification of the existing RPZ configuration because it would extend the RPZ trapezoid 1,776 feet further to the southeast and therefore must be evaluated with the FAA ADO staff and coordinated with FAA Regional Office staff. Relocating the threshold will significantly increase the percentage of incompatible land use within the RPZ. If the threshold is relocated to the end of Runway 28R, incompatible land uses will grow from 8% of the RPZ to 20% of the total RPZ area, a significant increase. See **Figure 4** for a depiction of the incompatible land use impacts generated by the proposed relocation of the RPZ. Areas identified on the southern portion of the proposed relocated RPZ are owned by the City of San Diego. The Airport staff has indicated that any structures or facilities within temporary in nature.

1.4. Airfield Support Equipment

If the RPZ is moved due to the removal of the displaced threshold, then the impact on various airfield support equipment components which will need to be considered including the expense of moving the equipment and feasibility of relocating that equipment. For example, the Medium Intensity Approach Lighting System with Runway Alignment Lights (MALSR), the glideslope equipment, and the Precision Approach Path Indicator (PAPI) are owned, operated, and maintained by the FAA's Air Traffic Organization (ATO). The relocation of these navigational aids will require close coordination with the FAA ATO and the potential for executing reimbursable agreement associated with the relocation efforts. The entire process will be subject to the FAA's schedule, available funding, and priority system.

Technical note

Figure 4. Proposed Relocated Threshold Runway 28 RPZ



Source: Atkins Analysis, 2018

MALSR

The MALSR approach lighting system for Runway 28R provides a visual transition from instrument flight during landing operations. This system consists of a combination of steady and flashing lights in a bar style format which communicates visual information to pilots on runway alignment, and aircraft orientation. The existing MALSR system will need to be relocated at the time the threshold is relocated. Currently, the Runway 28R MALSR equipment is a partial in-pavement system which extends 2,400 feet from the existing Runway 28R threshold (the displaced threshold). The proposed, relocated MALSR would extend 2,400 feet from the new Runway 28R threshold along the extended runway centerline. This will result in the , with the relocated MALSR equipment being sited in areas that have high potential for environmental impacts.

Glideslope Equipment

The glideslope antenna and associated equipment provides instrumented vertical guidance to pilots on approach. Currently the glideslope antenna is located 250 feet south along Runway 10/L28R centerline and 780 feet west of the Runway 29R threshold. The glideslope antenna is tied to the location of the runway threshold and will need to be relocated if the Runway 28R threshold is relocated. The site of the proposed glideslope equipment will be in an area which has been identified to have high levels of environmental and biological constraint.

PAPI

The PAPI system provides visual vertical guidance to pilots on approach. The PAPI system for Runway 28R is located 125 feet from the Runway 10/28R centerline and 770 feet from the existing Runway 28R threshold. The PAPI system is tied to the location of the runway threshold and will need to be relocated with the proposed Runway 28R threshold. The proposed PAPI location will be in areas that have been identified to have high levels of environmental and biological constraint.

Technical note

1.5. City of San Diego Resolution R-280194

The previous Airport Master Plan for MYF was completed in 1980. This 1980 Master Plan proposed a runway extension of 1,200 feet to Runway 10L/28R to enhance airport safety. This proposed extension did not include a displaced threshold. This runway extension project progressed to design and implementation in the early 1990's and the surrounding communities expressed concern that the runway extension presented in the 1980 Master Plan would have a significant noise impact. Specifically, the citizens were concerned that the extension of the runway would attract larger aircraft which would increase the overall noise impact.

Due to this public concern over the runway extension project, the City Council adopted Resolution R-280194 on June 22, 1992, with the intent to restrict the operations of larger jet aircraft at MYF. A City of San Diego Council resolution is a formal expression of opinion or intention and resolutions usually become effective upon their adoption. Resolution R-280194 implemented the existing displaced threshold with the intent of reducing the landing distance and stating that the runway extension will be "designed, marked, and used as a displaced threshold which will provide an additional 1,200 feet of runway to be used for takeoff on Runway 28 Right but will limit the runway length available for landing [on Runway 28R] to the existing 3,400 feet".

It is important to note that The Airport Noise and Capacity Act (ANCA) of 1990 (49 USC SUBTITLE VII, PART B, CHAPTER 475, SUBCHAPTER II: NATIONAL AVIATION NOISE POLICY) was passed in 1990. This US Code was enacted to standardize noise policy at a national level to ensure that inconsistent local restrictions on aviation do not impede the national air transportation system. Resolution R-280194 was adopted on June 22, 1992, two years after ANCA. Due to the governance provided in ANCA the City has no means to enforce the conditions of Resolution R-280194.

The following sections present an analysis of the specific requirements of Resolution R- 280194 pertinent to the existing displaced relocation.

"The Length of runway available for takeoff on Runway 10L is limited to the existing 3,400 feet"

- Currently there are no declared distances published for Runway 10L and no published indication that takeoff length on Runway 10L is limited to 3,400 feet. Therefore, the current length available for takeoff from Runway 10L is 4,577 feet.

"The use of Montgomery Field Airport is restricted to only those aircraft which have a maximum certificated gross takeoff weight of 20,000 pounds or less."

- The 20,000-pound weight restriction indicated in this passage of the Resolution was not supported or based on fleet mix or technical analysis efforts. This number is considered arbitrary in nature and has been removed from airport publications.
- Airport operations were analyzed between January 2016 and January 2018. This analysis found multiple aircraft with a maximum takeoff weight over 20,000 pounds currently operating at MYF. These aircraft include the Citation Sovereign (30,775lbs), the Citation III (22,000lbs), and the Challenger 300 (38,850lbs). Currently, there are on average 184 operations per year for aircraft with an MTOW greater than 20,000 lb. These aircraft most likely utilize the circling approach that is available for Runway 10L to safely land. These aircraft may also take large cuts in payload and fuel to meet takeoff requirements. This may result in reduced fuel purchase quantities at MYF.

Technical note

"That the weight bearing capacity of all runways at Montgomery Field is 12,000 pounds for aircraft with single wheel landing gear configurations in accordance with F.A.A. Pavement Strength Survey dated March 9, 1981"

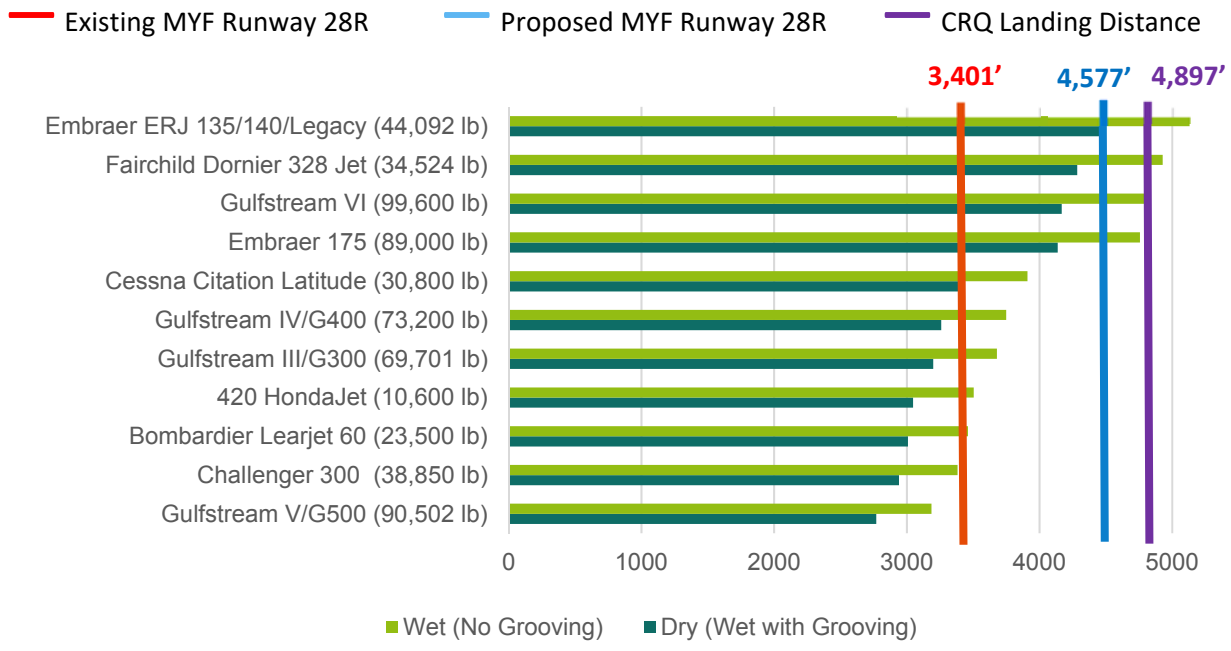
- The 2018 Pavement Maintenance Management Plan (PMMP) reported updated PCN codes indicating weight bearing capacity of the runways at MYF to be much higher than the findings of the 1981 pavement strength survey.

1.6. Case Study: McClellan-Palomar Airport

To better understand the impacts the proposed removal of the displaced threshold on Runway 10L/28R will have on the airport fleet mix, a comparison study was conducted using nearby McClellan-Palomar Airport (CRQ). CRQ represents an interesting opportunity to study the traffic at an airport with similar runway characteristics to MYF within a 30-nautical mile radius of the City of San Diego.

CRQ has over 13,000 more jet aircraft operations per year than MYF. Many jets operating at CRQ have a MTOW greater than 20,000 pounds, such as the Embraer 135 and Bombardier Challenger 605. These aircraft cannot currently operate at MYF due to landing distance and weight restrictions. **Figure 5** represents a grouping of aircraft which are currently operating at CRQ, and with the proposed threshold relocated to the Runway 28R end, these aircraft may be able to operate at MYF.

Figure 5. CRQ Fleet Mix Compatible with Relocated Threshold



Source: TFMSC Data CY 2017, Jetadvisors.com, FAA AC 150/5325-4B, Atkins Analysis 2018
Notes: Takeoff Distance at Sea Level Standard Day / MTOW / Zero Grade / Zero Wind
Landing Distance at Sea Level Standard Day - Max Landing Weight / Zero Grade / Zero Wind
Max Takeoff Weight in pounds represented by (MTOW lbs.)
CRQ TFMSC Data CY 2017 available in Appendix A

Technical note

Table 1 represents a comparison of critical characteristics of MYF and CRQ. It's important to note that these airports are very similar in terms of runway length, runway width, approach capabilities, and noise abatement procedures. Even without the displaced threshold on Runway 28R, differences exist in runway grooving, published pavement strength, FBO facilities, and transient aircraft storage that would likely still contribute to MYF having significantly fewer jet operations per year.

Table 1. MYF - CRQ Comparison

Airport Feature	MYF	CRQ
Jet Operations CY 2017	2,962	16,064
Runway Length	4,577 Ft.	4,857 Ft.
Runway Width	150 Ft.	150 Ft.
Runway Grooving	No	Yes
Approach Capabilities	Precision	Precision
Published Weight Bearing Capacity	**Single Wheel (S)** 12.0	**Single Wheel (S)** 60,000 **Dual Wheel (D)** 80,000 **Dual Tandem Wheel (2D)** 110,000
PCN	10L-28R: 35/F/C/Y/T 10R-28L: 43/F/C/Y/T 5-23: 55/F/B/Y/T	33 /F/D/X/T
Based Jet Aircraft	10	54
FBO	Yes, two small scale facilities offering maintenance and basic FBO services.	Yes, three, with some very large FBO's offering executive jet services.
Landing Fee	• $135 Operators Only • $10 for aircraft 10,000 lbs. MTOW or less • $1 per 1,000 lbs. for aircraft over 10,000 lbs. MTOW. • For example, a Cessna 421 = $10 per landing. A Citation Excel = $20/landing. • Fee's waved with fuel purchase	• Yes – Based on aircraft size • (C560 $335 + $15 Security Fee) • (C172 - $40 + $15 Security Fee) • Fee's waived with fuel purchase
Noise Abatement	• Aircraft with high noise levels requested to utilize 10L/28R • Maximum noise limit based on time of day	• Jet Aircraft requested to utilize ILS • Voluntary curfew • Multiple and Practice approaches and landings are discouraged.
Hangar Storage Available	235,000 SF Total 62 Estimated Structures	300,000 Estimated 12 Estimated Structures

Source: Airport 5010, Airport Master Records 2018; Airport Facility Directory,2018; Atkins Analysis, 2018

Runway Grooving

CRQ has transverse runway grooving on Runway 6/24 which MYF lacks. The grooving at CRQ effectively reduces landing field and takeoff lengths under adverse weather conditions. Grooving has significant benefits, in addition to takeoff and landing performance, including minimized skidding and hydroplaning and facilitating better pavement drainage. Transverse runway grooving is a published airfield characteristic and is considered during flight planning for jet aircraft operators.

Technical note

Published Weight Bearing Capacity

The FAA reports pavement strength information to the National Airspace System Resources (NASR) database and publishes pavement strength information in the Airport Master Record (Form 5010) and the Airport/Facility Directory (AFD). The pavement strength at CRQ is significantly higher than that of MYF and allows for multiple wheel configurations. Weight bearing capacity is a published airfield characteristic and is considered during flight planning for jet operators.

PCN

The internationally accepted method of reporting pavement strength is the Aircraft Classification Number - Pavement Classification Number (ACN-PCN). PCN is critical when planning jet aircraft operations and is considered when selecting landing sites for transient operations or an aircraft base. CRQ has a published PCN as listed in **Table 1**, whereas MYF currently has no PCN published or publicly available. This is likely due to the FAA application threshold where the use of the standardized method of reporting PCN applies only to pavements with a Published Weight Bearing Capacity of 12,500 pounds (5,700 kg) or greater. In the Spring of 2018, a Pavement Maintenance Management Plan (PMMP) study was completed at MYF which yielded updated PCN numbers for each runway at MYF. These updated values, not currently published, are indicated in **Table 1.**

FBO Characteristics

A fixed base operator, or FBO, is an on-airport business which provides aeronautical services such as fuel, tie downs, aircraft maintenance, and hangar storage. FBO's are common at all airports such as MYF and CRQ and they represent a typical destination for transient GA operations. FBO's do provide a range of services typically depending on the type of traffic frequenting an airport and conversely specific operational markets are drawn to certain types of FBO facilities. While no structured, tiered rating system exists for FBO facilities, it is important to note that CRQ and MYF have notably different styles of FBO. CRQ primarily provides what can be referred to as executive style FBO's such as Atlantic Aviation or Magellan Aviation which cater to large jets and high dollar transactions. In fact, Atlantic Aviation at CRQ has frequently scored in the top 50 FBO's in the US as ranked by Fltplan.com.

MYF currently does not have large executive style FBO facilities. Crown Air and Gibbs Flying Service are more than capable of handling most corporate jet operations, yet they do not offer the executive style FBO facilities seen at CRQ. This master plan effort did not determine a need for, and did not plan for, executive style FBO facilities at MYF within the planning period. However, development considerations at MYF which would create executive style FBO facilities could be accommodated.

Conventional Hangar Storage

MYF and CRQ appear very similar when comparing the aggregate square footage of conventional style hangar storage at each site. However, significant differences become apparent when examining the average size of the conventional hangar structures at the studied airports.

- At MYF there were an estimated 62 conventional hangar structures with the average conventional hangar size roughly 60 feet by 60 feet. This is representative of the primarily non- jet general aviation market that MYF serves. MYF has very few transient hangar facilities available for large jet aircraft meaning that many transient jet operators must store aircraft on aprons which is not a preferred scenario for jet operators. There are no plans for large transient aircraft storage facilities within the MYF master plan alternatives.

- Conversely, based on aerial imagery, CRQ has approximately 300,000 square feet of conventional hangar storage within only 12 structures. This brings the average hangar size at CRQ to roughly 150 feet by 160 feet. A significant amount of this conventional hangar storage is part of FBO facilities such as Atlantic Aviation. These facilities cater to large jet operators by providing climate controlled executive style hangar storage for transient jets.

1.7. Conclusion

Based on the findings of the CRQ comparison study, if the Runway 28R threshold were relocated without improvements such as published pavement strength, runway grooving, or executive FBO facilities, it is anticipated that there would be minimal growth in jet operations at MYF coupled with insignificant increases to the fleet mix size. It is important to note that these limiting airport features can feasibly be improved upon during the forecast period. Limiting factors such as PCN values can easily be updated to reflect the recently completed PMMP study, or the addition of a capital improvement program to add runway grooving.

Significant challenges exist in executing the proposed Runway 28R threshold relocation, but these challenges do not preclude the City of San Diego from pursuing the threshold relocation. If the City should decide to relocate the runway threshold, the following issues should be studied and be closely coordinated with airport stakeholders as well as the FAA, both locally and at a regional level.

- FAA Coordination for RPZ Relocation - The proposed relocated RPZ should be coordinated with the FAA ADO in the Airport Layout Plan approval process. This ALP review process will develop a course of action for assessing the feasibility of relocating the approach RPZ at MYF. At the time of project initiation, a practicability and risk assessment in accordance with the FAA Memo, Interim Guidance on Land Uses Within a Runway Protection Zone will be required to gain FAA approval of the project.

- At the time of project initiation, the environmental constraints affecting potential NAVAID relocation areas will need to be studied and assessed through a site specific environmental study of the biological impacts to the relocation of the NAVAID equipment. Additionally, since the specified NAVAID equipment is owned and operated by the FAA ATO, any relocation of this equipment is subject to ATO funding and priority.

Inclusion of the relocated Runway 28R threshold on the MYF Airport Layout Plan does represent intent to pursue the proposed project. Inclusion of this threshold relocation does not constitute a commitment on the part of the City of San Diego or the FAA to pursue or fund ALP proposed development, nor does it indicate the proposed development is environmentally acceptable in accordance with appropriate regulations. However, including the threshold relocation in the Airport Master Plan as part of a preferred alternative will allow the City of San Diego, should it decide to implement that part of their preferred alternative, to plan for and study in detail the regulatory, environmental, financial, and Federal coordination requirements necessary to execute the runway threshold relocation.

Technical note

Appendix A. TFMSC CY 2017 Data

TFMSC Report (Airport)

From 01/2017 To 12/2017 | Airport=MYF | Service Type=Jet

		Arrivals	Departures	Total Operations	Atkins Added Values MTOW	Takeoff Distance	Landing Distance
23	F22 - Boeing Raptor F22	0	2	2	83500	1575	656
36	SF50 - Cirrus Vision SF50	1	2	3	6000	2036	1628
6	C500 - Cessna 500/Citation I	5	3	8	11000	2930	2017
7	C501 - Cessna I/SP	21	20	41	11000	2930	2017
10	C550 - Cessna Citation II/Bravo	108	107	215	15100	3450	2078
11	C551 - Cessna Citation II/SP	4	4	8	15100	3450	2078
26	FA10 - Dassault Falcon/Mystère 10	39	34	73	18739	4429	2133
14	C680 - Cessna Citation Sovereign	10	10	20	30775	3640	2201
12	C560 - Cessna Citation V/Ultra/Encore	43	44	87	16630	3160	2230
28	H25B - BAe HS 125/700-800/Hawker 800	2	1	3	28000	5032	2245
22	EA50 - Eclipse 500	334	334	668	5950	2345	2250
27	FA50 - Dassault Falcon/Mystère 50	4	5	9	39700	4593	2297
33	LJ40 - Learjet 40; Gates Learjet	1	1	2	21000	4680	2334
17	CL35 - Bombardier Challenger 300	1	1	2	40600	40600	2364
8	C510 - Cessna Citation Mustang	75	77	152	8645	3110	2380
18	CL60 - Bombardier Challenger 600/601/604	0	1	1	48200	5640	2402
3	C25B - Cessna Citation CJ3	124	123	247	13870	3180	2411
25	F900 - Dassault Falcon 900	1	1	2	45503	5360	2415
19	E50P - Embraer Phenom 100	33	32	65	10582	3199	2430
34	LJ45 - Bombardier Learjet 45	15	15	30	21500	5395	2461
13	C56X - Cessna Excel/XLS	43	47	90	20200	3080	2465
24	F2TH - Dassault Falcon 2000	1	1	2	35800	5436	2579
30	LJ25 - Bombardier Learjet 25	1	1	2	15000	3937	2600
2	C25A - Cessna Citation CJ2	56	58	114	12500	3420	2619
9	C525 - Cessna CitationJet/CJ1	235	227	462	12500	3420	2619
20	E550 - Eclipse 550	1	1	2	38360	6000	2621
21	E55P - Embraer Phenom 300	24	28	52	17968	3707	2621
5	C25M - Cessna Citation M2 (10,700 lb)	17	18	35	10700	3250	2640
4	C25C - Cessna Citation CJ4 (17,110 lb)	62	62	124	17110	3130	2700
31	LJ31 - Bombardier Learjet 31/A/B (17,770 lb)	5	6	11	17700	3041	2733
32	LJ35 - Bombardier Learjet 35/36 (16,314 lb)	119	118	237	16314	3491	2769
16	CL30 - Bombardier (Canadair) Challenger 300 (3	10	10	20	38850	4810	2941
35	PRM1 - Raytheon Premier 1/390 Premier 1 (12,5(	61	65	126	12500	3792	2997
29	HDJT - HONDA HA-420 HondaJet (10,600 lb)	20	21	41	10600	3934	3047
15	C68A - Cessna Citation Latitude (30,800 lb)	1	1	2	30800	4900	3400
1	BE40 - Raytheon/Beech Beechjet 400/T-1 (16,10(	2	2	4	16100	3806	3517
Total:		**1,479**	**1,483**	**2,962**			

Report created on Tue Apr 10 16:36:55 EDT 2018

Sources: Traffic Flow Management System Counts (TFMSC), Aviation System Performance Metrics (ASPM)
Jet Advisors.com

Takeoff Distance at Sea Level Standard Day - MTOW
Landing Distance at Sea Level Standard Day - Max Landing Weight

TFMSC Report (Airport)

From 01/2017 To 12/2017 | Airport=CRQ | Service Type=Jet

ID	Aircraft	Arrivals	Departures	Total Operations	Atkins Added Values: Currently Operates at MYF?	MTOW	Takeoff	Landing
C500	Cessna 500/Citation I	7	7	14	yes	11,000	2,930	2,017
C501	Cessna I/SP	11	11	22	yes	11,000	2,930	2,017
FA7X	Dassault Falcon F7X	18	17	35		70,000	5,710	2,070
C550	Cessna Citation II/Bravo	193	189	382	yes	15,100	3,450	2,078
C551	Cessna Citation II/SP	2	3	5	yes	15,100	3,450	2,078
C680	Cessna Citation Sovereign	402	405	807	yes	30,775	3,640	2,201
C560	Cessna Citation V/Ultra/Encore	193	200	393	yes	16,630	3,160	2,230
H25B	BAe HS 125/700	268	272	540	yes	28,000	5,032	2,245
H25C	BAe/Raytheon HS 125	5	5	10		28,000	5,032	2,245
ASTR	IAI Astra 1125	7	6	13		23,501	5,250	2,250
EA50	Eclipse 500	113	106	219	yes	5,950	2,345	2,250
FA50	Dassault Falcon/Mystère 50	63	64	127	yes	39,700	4,593	2,297
LJ40	Learjet 40; Gates Learjet	24	23	47		21,000	4,680	2,334
HA4T	Hawker 4000	9	11	20		39,500	4,921	2,339
CL35	Bombardier Challenger 300	259	254	513	yes	40,600	40,600	2,364
C510	Cessna Citation Mustang	58	57	115	yes	8,645	3,110	2,380
C650	Cessna III/VI/VII	29	28	57		22,000	5,030	2,388
CL60	Bombardier Challenger 600/601/604	431	435	866	yes	48,200	5,640	2,402
C25B	Cessna Citation CJ3	683	671	1,354	yes	13,870	3,180	2,411
F900	Dassault Falcon 900	55	55	110	yes	45,503	5,360	2,415
E50P	Embraer Phenom 100	653	655	1,308	yes	10,582	3,199	2,430
G150	Gulfstream G150	57	58	115		26,100	5,012	2,431
LJ45	Bombardier Learjet 45	91	90	181	yes	21,500	5,395	2,461
C56X	Cessna Excel/XLS	419	418	837	yes	20,200	3,080	2,465
F2TH	Dassault Falcon 2000	153	150	303	yes	35,800	5,436	2,579
C25A	Cessna Citation CJ2	322	306	628	yes	12,500	3,420	2,619
C525	Cessna CitationJet/CJ1	694	697	1,391	yes	12,500	3,420	2,619
E550	Eclipse 550	67	67	134	yes	38,360	6,000	2,621
E55P	Embraer Phenom 300	393	397	790	yes	17,968	3,707	2,621
EMB505	Embraer EMB	34	33	67		35,274	3,907	2,621
C25M	Cessna Citation M2	5	5	10	yes	10,700	3,250	2,640
LJ75	Learjet 75	28	27	55		21,500	4,429	2,657
C25C	Cessna Citation CJ4	82	85	167	yes	17,110	3,130	2,700
G280	Gulfstream G280	46	45	91		39,600	4,750	2,720
GALX	IAI 1126 Galaxy/Gulfstream G200	119	119	238		35,450	4,750	2,720
GL5T	Bombardier BD	55	55	110		92,500	4,921	2,723
GLEX	Bombardier BD	100	102	202		99,500	4,921	2,723
LJ31	Bombardier Learjet 31/A/B	12	12	24	yes	17,700	3041	2733
LJ35	Bombardier Learjet 35/36	21	28	49	yes	16,314	3,491	2,769
GLF5	Gulfstream V/G500 (90,502 lb)	161	163	324		90,502	5,910	2,770
CL30	Challenger 300 (38,850 lb)	395	400	795	yes	38,850	4,810	2,941
LJ60	Bombardier Learjet 60 (23,500 lb)	88	91	179		23,500	5,450	3,009
HDJT	420 HondaJet (10,600 lb)	20	18	38	yes	10,600	3,934	3,047
GLF3	Gulfstream III/G300 (69,701 lb)	12	10	22		69,701	5,098	3,199
GLF4	Gulfstream IV/G400 (73,200 lb)	380	381	761		73,200	5,600	3,260
C68A	Cessna Citation Latitude (30,800 lb)	70	72	142	yes	30,800	4,900	3,400
E75L	Embraer 175 (89,000 lb)	0	1	1		89,000	7,362	4,137
GLF6	Gulfstream VI (99,600 lb)	154	160	314		99,600	5,858	4,167
J328	Fairchild Dornier 328 Jet (34,524 lb)	2	2	4		34,524	4,485	4,285
E135	Embraer ERJ 135/140/Legacy (44,092 lb)	10	9	19		44,092	5,774	4,462
E35L	Embraer 135 LR (44,092 lb)	64	62	126		44,092	5,774	4,462
E145	Embraer ERJ 145 (48,501 lb)	0	1	1		48,501	7,448	4,593
C750	Cessna Citation X	295	298	593		35,700	5,140	4,693
CRJ7	Bombardier CRJ 700	198	198	396		75,000	5,265	5,040

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