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.

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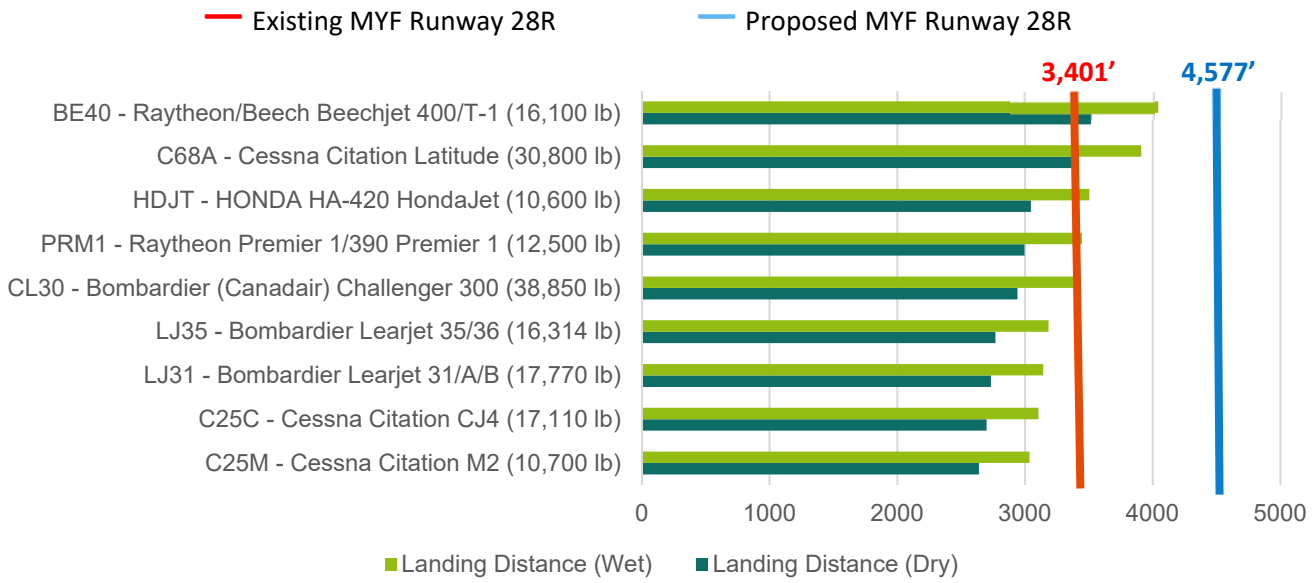
Fleet Mix

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

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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.

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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.

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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.

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"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"

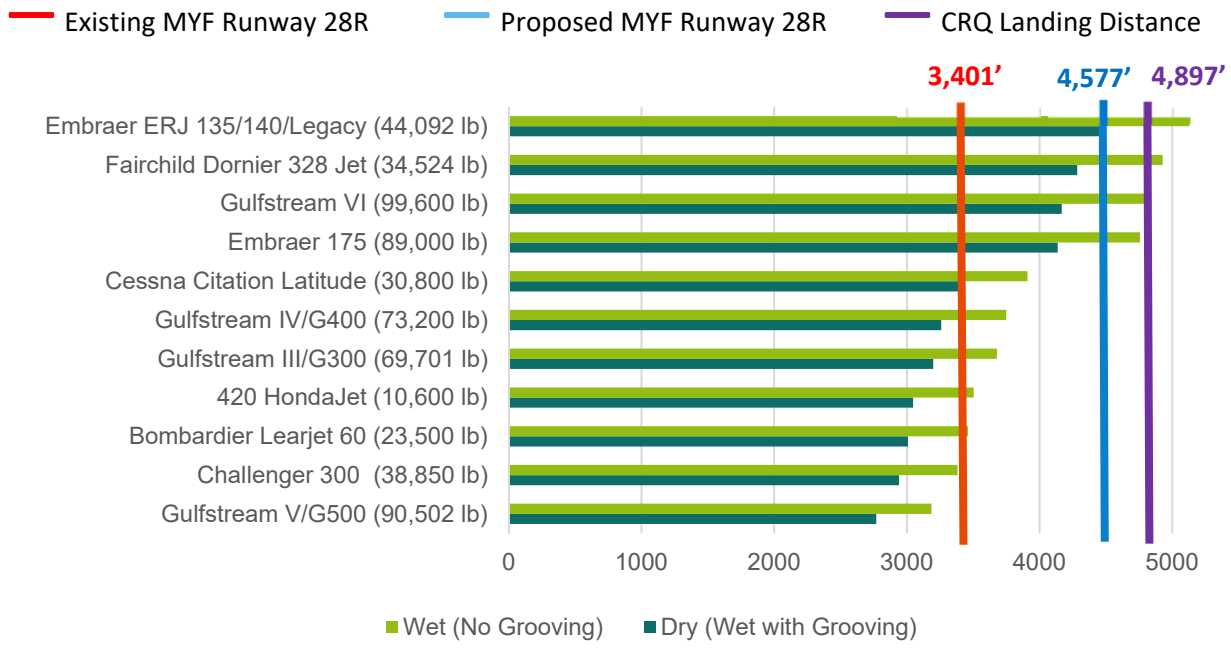
- The 2018 Pavement Maintenance Management Plan (PMMP) reported updated PCN codes indicating weight bearing capacity of the runways at MYF to be much higher than the findings of the 1981 pavement strength survey.

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

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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.

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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.

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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

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