San Diego Fire-Rescue Department

Training Division Probationary Firefighter Manipulative Exam Guide

JANUARY 2026

DESCRIPTION:			
SCBA			
SFT TOPIC:	SFT SKILL SHEET:	TIME STANDARD:	VIDEO LINK:
FF1A- 2-6	**1-3, 1-5, 1-6, 1-8**	**1:00**	**SCBA**

PERFORMANCE MEASURES:
SCBA Spiel.
Check cylinder gauge and call out PSI.
Open cylinder valve fully.
Acknowledge Vibralert/PAK-Alert.
Check remote pressure gauge and call out PSI.
Check that area is clear and announce, *"Stand clear, donning BA."*
Place hands through both shoulder straps and swing SCBA overhead.
Lower SCBA onto shoulders and pull down on shoulder straps to tighten.
Connect waist belt- weight of cylinder should be carried on hips.
Remove helmet and place chin in chin pocket of face piece.
Pull head harness up and tighten straps.
Perform Fit Check by covering mask opening with hand and inhaling.
No leakage of air shall be detected, and the face piece shall be drawn slightly to the face.
Pull Nomex hood up to cover all exposed skin areas from heat.
Replace helmet on head and tighten chin strap.
Don gloves over jacket gauntlets.
Attach regulator and clap hands signifying completion.
Reference **Drill Manual Chapter 6.**

DESCRIPTION:			
Conventional Forcible Entry			
SFT TOPIC:	SFT SKILL SHEET:	TIME STANDARD:	VIDEO LINK:
FF1A- 5-10	**3-4**	**N/A**	**Conventional F/E**

PERFORMANCE MEASURES:
Definition of Forcible Entry: The act of entering a building or occupancy via a door, window, or through a wall by the use of force.
Forcible Entry Considerations: 1) What is the urgency? 2) Where is the emergency in relation to the entry point? 3) Can entry be made by conventional methods? 4) What method of forcible entry will be the quickest? 5) What method of forcible entry will cause the least damage? 6) Do conditions indicate the need for ventilation prior to entry? 7) Do conditions indicate the need for a charged hose line prior to entry?
Door Size Up: 1) Building construction 2) Door and door frame construction 3) Direction of swing 4) Lock mechanisms (location, type, quantity, quality and weakest link).
Always try before you pry.
Gap-> Set-> Force: 1) **Gap**- Place the Adz in between door and frame then cam to create a gap **a.** Gap can be held with a door wedge or axe blade (Gain Saver) 2) **Set**- Place the Claw into the gap and drive to desired depth by using a striking tool 3) **Force**- Apply force by pushing or pulling on Halligan Bar.
Outward Swinging Door (two-tool): 1) Insert the Adz between door/frame and cam down to create a gap 2) Set the Claw until the tips wrap the door 3) Force outward.
Inward Swinging Door (two-tool): 1) Insert the Adz between door/frame and cam down to create a gap 2) Set the Claw until the tips wrap the frame 3) Force door inward.
Inward Swinging Door (one-tool): 1) Stick the pick of the Halligan or a pick-headed axe into the wooden jamb with a baseball style swing. 2) Push the tool inward to force the door.
Reference **Drill Manual** **Chapter 21.**

DESCRIPTION:			
Ground Extension Ladders			
SFT TOPIC:	SFT SKILL SHEET:	TIME STANDARD:	VIDEO LINK:
FF1A- 5-8	**3-6**	**N/A**	**24' GEL**

PERFORMANCE MEASURES:
24' GEL Spiel.
High Shoulder Carry (24'): 1) Announce, *"no overhead obstructions, preparing for High-Shoulder Carry."* 2) Raise ladder on one spur to find balance point, with bed facing you (bed to head). 3) Place one palm on the lower beam and squat to load the ladder on your palm and shoulder (opposite arm secures top beam). 4) Lift the ladder off the ground horizontally on your palm and shoulder.
Announce, *"no overhead obstruction, raising ladder."*
Raise ladder by spiking spurs at objective and move to vertical position.
Up the Fly 1) Announce, *"no overhead obstructions, upping the fly*." 2) Lean ladder 2 to 3 degrees past vertical away from you (do not allow ladder to lean towards you). 3) Steady ladder with shin and knee on beam. 4) Pull on halyard using downward motion with forearms facing beam. 5) When fly reaches desired height, ensure locks engage and announce, *"locks locked."*
Lower ladder into building while placing one foot on lowest rung and hands on beams.
Slide out on butt 1) Grasp beam with one hand and rung with the other. 2) Lift spurs off the ground and move bottom of ladder away from building. 3) Line rung up with roof line when possible.
Rotate ladder 180 degrees (can be skipped with two-person evolutions).
Verify and announce, "*proper climbing angle* (75 degrees)."
Verify and announce, *"four points of contact."*
Climbing ladder 1) Announce and verify, *"partner foot my ladder."* 2) Maintain three points of contact. 3) Grasp rungs with hands (span beams when carrying equipment). 4) Use instep of foot on rungs (not toes). 5) Avoid stepping on rungs above roofline.
To remove ladder, reverse the process (rotate, slide in on the butt, remove from building, down the fly, lower ladder, High Shoulder Carry).
*Ladders > 24' require partner to foot ladder.
Reference **Drill Manual Chapter 19.**

DESCRIPTION:			
Vertical Ventilation Commercial			
SFT TOPIC:	SFT SKILL SHEET:	TIME STANDARD:	VIDEO LINK:
FF1A- 5-14	**3-12**	**N/A**	N/A

PERFORMANCE MEASURES:
Describe Size Up Considerations 1) Locate fire (highest, hottest point). 2) Identify smoke conditions (volume, density, velocity, color). 3) Identify building construction type and roof construction. 4) Are there any covered exterior walkways or cantilevers to avoid cutting over? 5) Select ladder size and placement.
Describe Diagnostic Cuts 1) **Kerf Cut-** blade width puncture through roofing material. a. If smoke detected, expand to Smoke Indicator Hole. 2) **Smoke Indicator Hole-** small (blade width) triangle to monitor smoke conditions. 3) **Inspection Hole-** triangular cut to expose/identify structural members/orientation.
Reference **Drill Manual Chapter 20.**

Firefighter #3- Hook
Secure SCBA, TIC and Roof Hook.
Secure and place **28' GEL** safely with partner.
Entry procedures (mask up, tag out, click in, glove up).
Climb ladder safely/efficiently.
Sound roof for self, sound for crew, and TIC (structural members, fire location).
Signal partner to come up and communicate direction of travel.
Travel along structural members to desired hole location sounding appropriately.
Communicate with officer, then louver roof panel and punch through ceiling under all portions of the hole.
Verify ventilation effectiveness with officer.
Descend ladder and prepare for next assignment.

Firefighter #4- Saw
Secure SCBA and **chain saw.**
Secure and place **28' GEL** safely with partner.
Entry procedures (mask up, tag out, click in, glove up).
Follow partner to desired hole location staying on structural members.
Safely and efficiently create an appropriately sized ventilation opening for a commercial structure (approximately 32 sqft or 4'x 8')
If required, safely and effectively extends ventilation opening with or against construction as directed by proctor.
Descend ladder and prepare for next assignment.

DESCRIPTION:			
Twin Tension Clutch System			
SFT TOPIC:	SFT SKILL SHEET:	TIME STANDARD:	VIDEO LINK:
FF1A- 4-1	**3-10A, B**	**N/A**	**Below**

PERFORMANCE MEASURES:
Rope System Spiel
Introduction CMC Clutch
Construct or Secure Appropriate Anchor
CMC 11mm Clutch Lowering & Hauling
Construct Twin Tension Rope System with CMC Clutch (Lowering)
Conduct system safety check on system prior to operation • Anchor Test • Load and Function Test the Clutch to confirm proper operation; CMC 11mm Clutch Inspection & Function Test • Secure working end of the rope to the load • Safety checks all software and hardware
Lowering Operation • Gradually weight the ropes • Adjust tension between both devices until the weight is shared between them • Lower in unison sharing the load as evenly as possible and matching the descent speeds
Convert to a Hauling Twin Tension Rope System (TTRS) (3:1 Mechanical Advantage)
Construct twin tension rope system with CMC Clutch (Hauling) • Install identical mechanical advantage systems on each haul line • Adjust tension between both devices until the weight is shared between them • Haul in unison sharing the load as evenly as possible and matching the ascent speeds
Deconstruct the twin tension system and stage it properly for service

DESCRIPTION:			
Interior Attack			
SFT TOPIC:	SFT SKILL SHEET:	TIME STANDARD:	VIDEO LINK:
FF1A- 5-6	**3-3**	**N/A**	**Interior Attack**

Interior Attack Firefighter #3 PPE: Full structural PPE
Properly secures a SCBA
Deploys hose to the appropriate location
Preforms transitional attack
• **Close Proximity** to the opening
• **Steep angle** – Dispersing water along the entire compartment
• **Fixed Nozzle** – Nozzle movement stays fixed, minimizing air entrainment, and allowing the opening to self-exhaust
Entry Procedures- (Mask up, click in, tag out, glove up) moves into a ready position with the hoseline to protect their partner as the door is opened.
Moves towards fire in a "heads up position" ready to apply water at the first available opportunity
Initiates water application at the first available opportunity (cools from safe distance)
Safely and effectively cools all involved surfaces and/or surfaces that are exposed to fire/heat with the hose stream (wall-ceiling-wall "inverted U" or "O" Pattern)
Ensures complete cooling of the entire space and extinguishment to prevent regrowth of the fire
Continually monitors the area for fire regrowth and/or extension
If required, assist with victim rescue

Interior Attack Firefighter #4 PPE: Full structural PPE
Properly secures SCBA, irons, box light and TIC.
Control the flow path until the hoseline is ready to be advanced into the interior (controls doors and/or windows).
Entry procedures (mask up, click in, tag out, glove up).
Assist moving hose into the building safely and efficiently.
Conducts a primary search off of the hoseline while keeping within physical contact, visual contact, and/or voice contact of partner at all times.
Upon finding a victim and verbizes (VICTIM, VICTIM, VICTIM!) and reports the finding on radio.
Safety removes the victim (Firefighter #3 may assist)
Utilizes an appropriate victim drag to remove victim
Performs a radio report (PPN) after knockdown.
Continually monitors the fire for regrowth and/or extension with TIC
Perform radio report (PPN) once outside.

Communications for Air Management Policy

Please use the following as a guideline for communications during **ALL INTERIOR** evolutions as they relate to the SDFD Air Management Policy.

SCBA Bottle reaches 50% capacity

- Has **NOT** found the victim and/or the seat of the fire
    - *Notify IC* via a radio report and exit immediately
        - The evolution may be continued by the proctor for the sake of drill repetition.

- Has located the victim and/or the seat of the fire
    - *Notify the PROCTOR* verbally of air status to acknowledge the air management policy
    - Continues the evolution.

Vibralert Activation

- Has **NOT** located the victim and/or the fire
    - *Notify IC* via a radio report and leave immediately
    - Potential MAYDAY depending on the location within the building.

- Rescuing viable victim but **too far into building** to make it out safely
    - *Notify IC* via a radio report and leave immediately
    - Potential MAYDAY depending on the location within the building.

- Rescuing a victim but **close enough** to make it out
    - *Notify the PROCTOR* verbally
    - Displays knowledge of exit location and proximity
    - No radio report to the IC is needed if it will cause unnecessary delay in fire suppression, victim rescue, or other critical tasks.

Fire Attack Addendum

The following are key principles from the Fire Dynamics (Chapter 7) chapter of the Drill Manual and will assist you in the Fire Attack portion of your Class Exam:

Transitional Attack Key Principles

Transitional Attack is an offensive fire attack made from the exterior of a structure. With an emphasis towards early water application, the transitional attack's sole objective is to improve interior conditions prior to entering. By doing so, crews can begin cooling the environment as soon as possible; contracting the super-heated gasses and "resetting the clock" for flashover (Drill Manual, Chapter 7 – Fire Dynamic, pg 28). A properly preformed transitional attack will cool the environment for both victim and firefighters prior to entry and entrain a minimum amount of air from the exterior of the structure.

A properly preformed transitional attack has three elements:

- **Close proximity**
- **Steep Angle - The steep angle allows the stream to make contact immediately, dispersing water along the entire compartment**
- **Fixed Nozzle - Nozzle movement stays fixed, minimizing air entrainment, and allowing window to self-exhaust**

(Drill Manual, Ch 7 – Fire Dynamic, pg 30)

Interior Attack Key Principles

Direct water application to all surfaces within the involved space is the most efficient method to improve conditions for both victims and firefighters.

Because victims are not afforded respiratory or heat protection like we are, fire personnel must utilize their hose line with a more deliberate application. Choosing to not just extinguish the fire, but to aggressively create a more tenable atmosphere (i.e. thermal and toxic) for victims, until a rescue is performed (Drill Manual, Chapter 7 – Fire Dynamic, pg 32)

When conditions warrant a moving hose stream (during the interior attack), firefighters have the option of either an "O" or "Inverted U" pattern. By doing so, not only are we creating a pressure front but were also cooling the environment in an efficient and systematic manner. Both options start with opening the nozzle towards the ceiling, addressing the super-heated gases for both contraction and absorption. However, the compartments other surfaces are still pyrolyzing and must be addressed. This is where the rest of our stream's application has its effect. With either pattern you choose, the stream moves back-and-forth from the ceiling to the walls in a methodical manner. This allows

the water to coat all other surfaces, absorbing heat and halting pyrolysis. (Drill Manual, Chapter 7 – Fire Dynamic, pg 36)

A systematic and complete application of water to all heated surfaces is the fastest and most effective way to reduce the temperature within the structure and improve victim survivability. Water must be applied to all surfaces of the involved area until the temperature is reduced to survivable thresholds for victims, well beyond the initial knockdown of visible flames.

The nozzle team needs to remember that the fire will immediately begin to re-grow if not completely extinguished as soon as the nozzle is shut down. **To make matters worse, conditions often developed with interior crews unable to notice its development. Studies further showed that the early stages of re-growth were often over the head of the advancing crew and because of their structural protective gear, crews were unable to feel any changes in their environment until re-growth reached a more pronounced state. (Drill Manual, Ch 7 – Fire Dynamic, pg 37)**

This systematic and complete method of water application not only protects any potential victims but is critical in preventing a re-growth of the fire while other fireground operations are being performed (i.e. Searching for victims).