

San Diego Fire-Rescue Department



Training Division Probationary Firefighter Manipulative Exam Guide

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SAN DIEGO FIRE-RESCUE DEPARTMENT
FIRE ACADEMY STANDARD OPERATING GUIDE

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:	PASS	FAIL
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, " <i>Stand clear, donning BA.</i> "		
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.		

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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:	PASS	FAIL
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.		
<u>Outward Swinging Door (two-tool):</u> 1) Insert the Adz between door/frame and cam down to create a gap 2) Set the Claw until the tips wraps the door 3) Force outward.		
<u>Inward Swinging Door (two-tool):</u> 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.		
<u>Inward Swinging Door (one-tool):</u> 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.		

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

PERFORMANCE MEASURES:	PASS	FAIL
24' GEL Spiel.		
High Shoulder Carry (24'): 1) Announce, <i>"no overhead obstructions, preparing for High-Shoulder Carry."</i> 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, <i>"no overhead obstruction, raising ladder."</i>		
Raise ladder by spiking spurs at objective and move to vertical position.		
Up the Fly 1) Announce, <i>"no overhead obstructions, upping the fly."</i> 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, <i>"locks locked."</i>		
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 slipped with two-person evolutions).		
Verify and announce, <i>"proper climbing angle (75 degrees)."</i>		
Verify and announce, <i>"four points of contact."</i>		
Climbing ladder 1) Verify and announce, <i>"partner foot my ladder."</i> 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.		

SAN DIEGO FIRE-RESCUE DEPARTMENT
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DESCRIPTION:			
Vertical Ventilation Commercial			
SFT TOPIC:	SFT SKILL SHEET:	TIME STANDARD:	VIDEO LINK:
FF1A- 5-14	3-12	N/A	N/A

PERFORMANCE MEASURES:	PASS	FAIL
Chain Saw Spiel.		
Describe operating and maintenance procedures for two-stroke equipment (see Drill Manual Chapter 5).		
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- Sounder		
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.		

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FIRE ACADEMY STANDARD OPERATING GUIDE

Firefighter #4- Cutter		
Exit procedures.		
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.		
If required, safely and effectively extends ventilation opening with or against construction as directed by proctor.		
Descend ladder and prepare for next assignment.		

SAN DIEGO FIRE-RESCUE DEPARTMENT
FIRE ACADEMY STANDARD OPERATING GUIDE

DESCRIPTION:			
Vertical Ventilation Commercial			
SFT TOPIC:	SFT SKILL SHEET:	TIME STANDARD:	VIDEO LINK:
FF1A- 5-13	3-12	N/A	N/A

PERFORMANCE MEASURES:	PASS	FAIL
Review Vertical Ventilation Residential		
Method 1		
Perform two separate center rafter louver ventilation holes next to each other as described in Drill #5 to create a total ventilation opening of approximately 32 square feet (equivalent to 4 x 8)		
Method 2		
Perform push cut to locate fire-side rafter.		
Place a long head cut moving away from the fire rolling multiple rafters (approximately 8').		
Insert a downward, or vertical cut, along the inside of the fire-side rafter (#1). (approximately 4')		
Working back towards your ladder make a bottom cut, rolling the next rafter (#2) and stop when you contact rafter #3.		
Make another downward or vertical cut on the fire-side of rafter #3, completing a Center Rafter Louver.		
Repeat the previous three cuts to add a second Center Rafter Louver.		
Bottom, or Louver cut sequence (again) = Roll rafter #2 → stop → down cut inside of rafter #3 → down cut outside of rafter #3 → repeat for multiple louvers.		
Simply stated: "Roll, Stop, Down, Down" then repeat for multiple louvers to achieve desired overall width.		
Sounder to louver the holes starting with fire side and working back towards the ladder after all cuts are completed, creating a total ventilation opening of approximately 32 square feet (equivalent to 4' x 8')		
Additional concepts for consideration- expanding an existing hole with/against construction and dicing.		
Reference Drill Manual Chapter 20.		

SAN DIEGO FIRE-RESCUE DEPARTMENT
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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 - https://youtu.be/hnW_F-Nihus
Construct or Secure Appropriate Anchor
CMC 11mm Clutch Lowering & Hauling - https://youtu.be/lAZA08PuhCE
Construct twin tension rope system with CMC Clutch (Lowering)
Conduct system safety check on system prior to operation • Anchor Test • Load and Function Test Clutch to confirm proper operation; CMC 11mm Clutch Inspection & Function Test https://youtu.be/knMkyuKpIQI • Secure working end of the rope to the load • Safety check all software and hardware
Lowering Operation • Gradually weight ropes • Adjust tension between both devices until weight is shared between them • Lower in unison sharing load as evenly as possible and matching descent speeds
Convert to 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 weight is shared between them • Haul in unison sharing load as evenly as possible and matching ascent speeds
Deconstruct twin tension system and stage properly for service

SAN DIEGO FIRE-RESCUE DEPARTMENT
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DESCRIPTION:			
Interior Attack			
SFT TOPIC:	SFT SKILL SHEET:	TIME STANDARD:	VIDEO LINK:
FF1A- 5-6	3-3	N/A	Interior Attack

TEST 1A-DRILL #18-1 3/4" INTERIOR ATTACK #3 FF PPE: Full Structure gear and SCBA	PASS	COMMENTS
Exit procedures.		• Proctor directs hit and move • Proctor directs to push
Secure SCBA.		
Deploy hose to appropriate location utilizing the Flip Method.		
Perform Transitional Attack if appropriate.		
Entry Procedures (Mask up, click in, tag out, glove up).		
Protects partner as they open door.		
Perform Hit and Move		
Advance hose utilizing Clamp Slide/Comella Crawl.		
Make a Push into fire room.		
Safely and effectively cools all surfaces in the fire room (wall-ceiling-wall)		
Check for extension.		
Conduct primary search off hose line while staying in verbal/visual contact with partner.		
Safely/efficiently conduct rescue		
SAFETY (3) AND MISCELLANEOUS DELAY (1) VIOLATIONS		
1.		
2.		
3. POSSIBLE POINTS:		
4. POINTS RECEIVED:		
POSSIBLE POINTS:		Time:
POINTS RECEIVED:		Proctor:

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TEST 1B-DRILL #18-1 3/4" INTERIOR ATTACK #4 FF PPE: Helmet, Coat, Structure Gloves, SCBA	PASS	COMMENTS
Exit procedures.		
Secure SCBA, irons, box light and TIC		
Address forcible entry.		
Control flow path.		
Entry procedures (mask up, click in, tag out, glove up).		
Moves hose into building appropriately.		
Assist partner making a Push		
Conduct primary search off hose line while staying in physical/verbal/visual contact with partner.		
Assist partner with primary search/victim removal. Oriented on hose line and guiding partner out of IDLH		
Perform appropriate PPNs to Fire Attack after knockdown.		
Perform radio report (PPN) once outside.		
SAFETY (3) AND MISCELLANEOUS DELAY (1) VIOLATIONS		
1.		
2.		
3.		
4.		
POSSIBLE POINTS:		Time:
POINTS RECEIVED:		Proctor:

Communications for Air Management Policy

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

SCBA Bottle reaches 50% capacity

- Have **not** found victim or seat of fire
 - *Notify IC* via radio report and exit immediately
 - Recruit *may* be continued by proctor for sake of drill repetition.
- Located victim and/or seat of fire
 - *Notify PROCTOR* verbally of air status to acknowledge air management policy
 - Continue evolution.

Vibralert Activation

- Have **not** located victim or fire
 - *Notify IC* via radio report and leave immediately
 - Potential MAYDAY depending on location in building.
- Rescuing viable victim but **too far into building** to make it out safely
 - *Notify IC* via radio report and leave immediately
 - Potential MAYDAY depending on location in building.
- Rescuing victim but **close enough** to make it out
 - *Notify PROCTOR* verbally
 - Display knowledge of exit location and proximity
 - No radio report to IC needed (unnecessary delay).