



PENNSYLVANIA STATE FIRE ACADEMY AIRPORT FIREFIGHTER SKILL STATIONS

Airport Fire Fighter Skill Stations

NFPA 1003 - Chapter 4 (2015 Edition)

Station A	Grid Map Exercise	Mandatory Station
Station B	Communications	Random Station
Station C	Handline Operations	Mandatory Station
Station D	Turret Operation	Mandatory Station
Station E	Wheel Brake Fire	Mandatory Station
Station F	Engine Fire	Random Station
Station G	Interior Fire	Mandatory Station
Station H	Re-Supply	Random Station
Station I	Triage	Random Station
Station J	Evidence Preservation	Random Station
Station K	Military Aircraft Familiarity	Random Station
Station L	Three-Dimensional (3-D) Fuel Fire	Random Station
Station M	Incident Size-up & Report	Random Station
Station N	Patient Rescue	Random Station



PENNSYLVANIA STATE FIRE ACADEMY AIRPORT FIREFIGHTER SKILL STATIONS

STATION A – Grid Map Exercise		Reference NFPA 1003 (2015 Edition) Chapter 4 Mandatory Station JPR 4.2.1	
Test Site	Test Date	Candidate #	Check the Test Type _____ Initial _____ Retest

Evaluator Note: Grid maps/overlays, compass, and scenario/question sheet are needed for this station.

Directions: Using the material provided, answer the questions posed to you by the evaluator. Do you have any questions?

Performance Outcome: Pass / Fail is determined by **9 of 9** tasks being correctly performed and demonstrating a level of competency as referenced by the NFPA and FAA.

No.	Tasks	Yes	No
1	Identifies the grid lines and can orient the map		
2	Demonstrates ability to plot a point on the map		
3	Given a set of grid coordinates, correctly plots the geographic location		
4	Given a geographic landmark (e.g., an intersection, peak, structure, etc.) correctly plots the applicable grid coordinates		
5	Given an accurate description of topography, nearby facilities, roads, and other physical features of the immediate vicinity, correctly plots the geographic location		
6	Given an incident location by grid coordinates, plots a safe, efficient route to the scene		
7	Given an overlay, demonstrates the ability to refine grid locations and identifies controlled access points		
8	Identifies water distribution system, airport markings and lighting system encountered		
9	Completes all tasks without compromising personal safety		
Please indicate skill outcome		PASS	FAIL

Evaluator Comments: _____

Evaluator Signature: _____

Evaluator # _____



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Candidate Scenario Sheet

Station A – Grid Map Exercise

Read the information below to the candidate:

There is a report of an aircraft accident on runway _____. The report states a smoke plume is coming from the vicinity of the _____.

1. Identifies the location on the grid map.

2. Indicates possible access routes using the overlays and identifies water distribution system/access points, airport markings, and lighting systems encountered on the possible routes.

3. Determine the best route for responding equipment:
 - a. On airport equipment
 - b. Off airport equipment

4. Determine a staging location for responding equipment:
 - a. Fire apparatus
 - b. EMS equipment
 - c. Determine entry and exit points

5. Vehicles responding from _____ report they are in grid _____ at staging area “A”. Where are these vehicles located on the airport?



PENNSYLVANIA STATE FIRE ACADEMY AIRPORT FIREFIGHTER SKILL STATIONS

STATION B – Communications		Reference NFPA 1003 (2015 Edition) Chapter 4 Random Station JPRs 4.2.3, 4.2.2	
Test Site	Test Date	Candidate #	Check the Test Type ____ Initial ____ Retest

Directions: Given an incident location on an active runway, and using the radio supplied, request the necessary clearances for your unit to respond from the station to the incident site via the nearest taxiway. Do you have any questions?

Performance Outcome: Pass / Fail is determined by **5 of 7** tasks being correctly performed and demonstrating a level of competency as referenced by the NFPA and FAA.

No.	Tasks	Yes	No
1	Identifies a route to be taken		
2	Uses proper ground control radio terminology and procedures		
3	Requests proper clearances for the route selected		
4	Acknowledges instructions received by doing read-backs		
5	Follows the directions exactly as given		
6	Stops at appropriate markings or signs		
7	Completes all tasks in a clear and professional manner		
Please indicate skill outcome		PASS	FAIL

Evaluator Comments: _____

Evaluator Signature: _____ **Evaluator #** _____



PENNSYLVANIA STATE FIRE ACADEMY AIRPORT FIREFIGHTER SKILL STATIONS

STATION C – Handline Operations		Reference NFPA 1003 (2015 Edition) Chapter 4 Mandatory Station JPRs 4.3.1, 4.1.1, 4.2.4	
Test Site	Test Date	Candidate #	Check the Test Type ____ Initial ____ Retest

Directions: As a member of a team using the ARFF vehicle handline and appropriate agent, control and extinguish an aircraft fuel spill fire. Do you have any questions?

Performance Outcome: Pass / Fail is determined by **11 of 13** tasks being correctly performed and demonstrating a level of competency as referenced by the NFPA and FAA.

No.	Tasks	Yes	No
1	Properly dons and wears full PPE		
2	Properly deploys the handline from the reel or other stowage		
3	Attacks from upwind and upgrade (if feasible)		
4	Demonstrates the proper agent application technique		
5	Adjusts the nozzle pattern appropriately in response to changing conditions		
6	Establishes and maintains initial rescue / egress path		
7	Attempts to sweep fire away from and cool exposures		
8	Continues to advance as the fire is knocked down		
9	Avoids “plunging” the stream directly into the ground		
10	Demonstrates proper line handling techniques in the back up position		
11	Verbalizes / re-applies the agent to maintain foam blanket as needed		
12	Team safely extinguishes the fire in 90 seconds		
13	Monitors for potential re-ignition and initiates corrective action to assure non-reignition until the hazard is eliminated		
14	Completes all tasks without compromising personal or team safety		
Please indicate skill outcome		PASS	FAIL

Evaluator Comments: _____

Evaluator Signature: _____

Evaluator # _____



PENNSYLVANIA STATE FIRE ACADEMY AIRPORT FIREFIGHTER SKILL STATIONS

STATION D – Turret Operation		Reference NFPA 1003 (2015 Edition) Chapter 4 Mandatory Station JPRs 4.3.2, 4.1.1, 4.3.5	
Test Site	Test Date	Candidate #	Check the Test Type ____ Initial ____ Retest

Directions: Using the turret on this ARFF vehicle and appropriate agent, control and extinguish the aircraft fuel spill presented. Do you have any questions?

Performance Outcome: Pass / Fail is determined by **10 of 12** tasks being correctly performed and demonstrating a level of competency as referenced by the NFPA and FAA.

No.	Tasks	Yes	No
1	Properly dons and uses appropriate PPE [NOTE: For this skill, the proximity hood, SCBA, and gloves may be omitted.]		
2	Identifies the fuel involved and select / verbalizes the agent type required		
3	Directs driver to position the vehicle properly		
4	Attacks from upwind and up-grade (where feasible)		
5	Demonstrates proper agent application technique		
6	Secures and maintains initial rescue / egress path		
7	Sweeps fire away from and cools the fuselage and other exposures		
8	Minimizes agent waste		
9	Avoids “plunging” the stream directly into the ground		
10	Safely extinguishes the fire in 90 seconds		
11	Verbalizes / reapplies agent to maintain a foam blanket as needed		
12	Completes all tasks without compromising personal or team safety (Operates all vehicle safety equipment (i.e., deluge, under truck nozzles)		
Please indicate skill outcome		PASS	FAIL

Evaluator Comments: _____

Evaluator Signature: _____

Evaluator # _____



PENNSYLVANIA STATE FIRE ACADEMY AIRPORT FIREFIGHTER SKILL STATIONS

STATION E - Wheel Brake Fire		Reference NFPA 1003 (2015 Edition) Chapter 4 Mandatory Station JPRs 4.3.6, 4.1.1	
Test Site	Test Date	Candidate #	Check the Test Type _____ Initial _____ Retest

Directions: As a member of a team using the ARFF vehicle handline and appropriate agents, control and extinguish a wheel brake fire involving the wheel assembly and leaking combustibile fluids. Do you have any questions?

Performance Outcome: Pass / Fail is determined by **12 of 14** tasks being correctly performed and demonstrating a level of competency as referenced by the NFPA and FAA.

No.	Tasks	Yes	No
1	Properly dons and uses full PPE		
2	Selects / verbalizes the proper agent for the fuel(s) involved		
3	Directs driver to properly position the vehicle		
4	Attempts to establish visual or verbal contact with aircrew		
5	Makes safe approach to wheel to avoid fragmentation hazard		
6	Avoids other hazard areas (i.e., prop, turbine intake/exhaust, prop/jet wash area, radomes, etc.)		
7	Attacks from upwind and up-grade (if feasible)		
8	Demonstrates appropriate agent application technique(s)		
9	Sweeps fire away from and cools exposures		
10	Manipulates the stream to avoid wasting agent		
11	Avoids "plunging" the stream directly into the ground		
12	Properly handles hoseline when functioning as the back-up firefighter (Mandatory Yes to PASS)		
13	Extinguishes the fire completely or achieves sufficient control to prevent extension beyond wheel assembly		
14	Completes all tasks without compromising personal or team safety		

Please indicate skill outcome **PASS** **FAIL**

Evaluator Comments: _____

Evaluator Signature: _____

Evaluator # _____



PENNSYLVANIA STATE FIRE ACADEMY AIRPORT FIREFIGHTER SKILL STATIONS

STATION F – Engine Fire		Reference NFPA 1003 (2015 Edition) Chapter 4 Random Station JPRs 4.3.5, 4.1.1	
Test Site	Test Date	Candidate #	Check the Test Type ____ Initial ____ Retest

Directions: Working as a team and using the ARFF vehicle handline and supplied agents, control and extinguish an aircraft engine fire. Do you have any questions?

Performance Outcome: Pass / Fail is determined by **13 of 17** tasks being correctly performed and demonstrating a level of competency as referenced by the NFPA and FAA.

No.	Tasks	Yes	No
1	Properly dons and uses full PPE		
2	Identifies the engine and fuel type involved and selects / verbalizes the proper agent		
3	Directs the driver to properly position the vehicle		
4	Attacks from upwind and upgrade (if feasible)		
5	Detects the outward warning signs of the precise nature of the fire (Nacelle, cone, etc.)		
6	Attempts to contact the flight crew		
7	Confirms the engine is shut down		
8	Initiates or prepares for aircraft evacuation if fire conditions warrant		
9	Deploys the handline properly from a reel or other stowage		
10	Maintains protection of egress and exit doors		
11	Attempts to sweep the fire away from and cool exposures		
12	Maintains safe distances and clearances from hazardous areas (props, turbine intakes / exhausts, prop or jet wash areas, radomes)		
13	Handles the hoseline properly in the “back-up” position		
14	Opens cowlings and panels, as necessary, for extinguishment		
15	Demonstrates appropriate agent application techniques		
16	Verbalizes / re-applies agent to cool area as necessary		
17	Completes all tasks without compromising personal or team safety		
Please indicate skill outcome		PASS	FAIL

Evaluator Comments: _____

Evaluator Signature: _____ **Evaluator #** _____



PENNSYLVANIA STATE FIRE ACADEMY AIRPORT FIREFIGHTER SKILL STATIONS

STATION G – Interior Fire		Reference NFPA 1003 (2015 Edition) Chapter 4 Mandatory Station JPRs 4.3.4, 4.3.7, 4.3.10, 4.1.1	
Test Site	Test Date	Candidate #	Check the Test Type _____ Initial _____ Retest

Directions: As a member of a team or the back-up team, using the ARFF vehicle handline and appropriate agents, control and extinguish an aircraft interior fire. Do you have any questions?

Performance Outcome: Pass / Fail is determined by **13 of 17** tasks being correctly performed and demonstrating a level of competency as referenced by the NFPA and FAA.

No.	Tasks	Yes	No
1	Properly dons and uses full PPE		
2	Directs driver to properly position the vehicle		
3	Identifies fuel type involved and selects / verbalizes proper agent to be used		
4	Takes wind direction and probable fire location into account in choosing entry point		
5	Gains access to the aircraft interior at the selected entry point		
6	Conducts the emergency shutdown procedures (i.e., throttle idle, discharge the fire extinguishing system, and shut off batteries: MUST be done in this order)		
7	Effectively protects internal and (if present) external exposures		
8	Maintains safe distances and clearances from hazard areas (e.g., props, turbine intakes / exhausts, prop or jet wash areas, radomes)		
9	Advances hoselines on interior or exterior stairways or ladders		
10	Demonstrates effective nozzle manipulation		
11	Team evaluates for and indicates the fire is extinguished		
12	Establishes egress path(s) and protects exit points		
13	Performs initial ventilation, considers heat transfer methods, and removes any barriers, using existing aircraft opening or mechanical ventilation devices		
14	Conducts a primary search of the aircraft during initial attack and locates “victims”		
	<i>On Evaluator Command, the Team Retreats to a Safe Location and the Back-up Team Makes Entry</i>		
15	Back up team evaluates for indications of hidden fires		
16	Detects any hidden fires and performs an effective overhaul operation of fire area		
17	Completes all tasks without compromising personal or team safety		
Please indicate skill outcome		PASS	FAIL

Evaluator Comments: _____

Evaluator Signature: _____

Evaluator # _____



PENNSYLVANIA STATE FIRE ACADEMY AIRPORT FIREFIGHTER SKILL STATIONS

STATION H – Re-Supply		Reference NFPA 1003 (2015 Edition) Chapter 4 Random Station JPR 4.3.8	
Test Site	Test Date	Candidate #	Check the Test Type _____ Initial _____ Retest

Directions: Using the facilities and supplies available, replenish the ARFF vehicle’s agent supply tank(s) so that the vehicle can quickly resume firefighting operations. Do you have any questions?

Performance Outcome: Pass / Fail is determined by **8 of 11** tasks being correctly performed and demonstrating a level of competency as referenced by the NFPA and FAA.

No.	Tasks	Yes	No
1	Properly dons and uses PPE <i>[Note: SCBA and a proximity hood are not required, however a fire helmet and eye protection must replace them.]</i>		
2	Identifies / verbalizes the agent type needed		
3	Directs the driver to properly position the vehicle		
4	Connects the hoseline to the agent source		
5	Removes kinks from the hoseline prior to charging the line		
6	Connects hoseline to the vehicle at proper re-supply point		
7	Opens supply line		
8	Opens the vehicle intake and tank lid (if necessary)		
9	Closes supply line		
10	Configures supply line for easy access and re-supply		
11	Completes all tasks without compromising personal or team safety		
Please indicate skill outcome		PASS	FAIL

Evaluator Comments: _____

Evaluator Signature: _____ **Evaluator #** _____



PENNSYLVANIA STATE FIRE ACADEMY AIRPORT FIREFIGHTER SKILL STATIONS

STATION I – Triage		Reference NFPA 1003 (2015 Edition) Chapter 4 Random Station JPR 4.4.3	
Test Site	Test Date	Candidate #	Check the Test Type ____ Initial ____ Retest

Directions: Using the supplies and equipment provided, assess the condition of patients found and triage them for treatment / transport. Do you have any questions?

Performance Outcome: Pass / Fail is determined by **8 of 10** tasks being correctly performed and demonstrating a level of competency as referenced by the NFPA and FAA.

No.	Tasks	Yes	No
1	Properly dons and uses full PPE		
2	Establishes an accessible, secure, and safe triage area		
3	Locates 100% of patients in accident area		
4	Correctly classifies patients by type and severity of injuries		
5	Directs ambulatory patients to a collection point		
6	Properly completes and attaches triage tags		
7	Minimizes disturbing evidence – only what is necessary to gain access to patient(s)		
8	Covers deceased victim remains		
9	Maintains accurate accountability of patients processed		
10	Completes all tasks without compromising personal or team safety		
Please indicate skill outcome		PASS	FAIL

Evaluator Comments: _____

Evaluator Signature: _____ **Evaluator #** _____



PENNSYLVANIA STATE FIRE ACADEMY AIRPORT FIREFIGHTER SKILL STATIONS

STATION J – Evidence Preservation		Reference NFPA 1003 (2015 Edition) Chapter 4 Random Station JPR 4.3.9	
Test Site	Test Date	Candidate #	Check the Test Type ____ Initial ____ Retest

Directions: Preserve the scene of an aircraft accident so that evidence is not disturbed. Do you have any questions?

Performance Outcome: Pass / Fail is determined by **7 of 9** tasks being correctly performed and demonstrating a level of competency as referenced by the NFPA and FAA.

No.	Tasks	Yes	No
1	Properly dons and uses full PPE		
2	Identifies potential evidence		
3	Does not unnecessarily disturb evidence; marks or records location of moved evidence		
4	Marks areas where evidence is located		
5	Records evidence location and type		
6	Identifies flight data and cockpit voice recorders		
7	Covers unprotected equipment with salvage covers		
8	Notifies appropriate agencies of the locations of evidence		
9	Completes all tasks in a professional manner		
Please indicate skill outcome		PASS	FAIL

Evaluator Comments: _____

Evaluator Signature: _____

Evaluator # _____



PENNSYLVANIA STATE FIRE ACADEMY AIRPORT FIREFIGHTER SKILL STATIONS

STATION K – Military Aircraft Familiarity		Reference NFPA 1003 (2015 Edition) Chapter 4 Random Station JPRs 4.2.4, 4.4.1	
Test Site	Test Date	Candidate #	Check the Test Type ____ Initial ____ Retest

Evaluator Note: Two copies of *USAF T.O. 00-105E-9* (1 for the candidate and 1 for the evaluator) along with the candidate question sheet are needed for this skill station.

Directions: An in-flight emergency involving a military aircraft is inbound to your airfield. Your evaluator will identify the aircraft type. Using the references provided, perform the tasks and answer the questions on the sheet provided to you, and verbalize your responses to the evaluator. You may use the reference to clarify or illustrate your answers. Do you have any questions?

Performance Outcome: Pass / Fail is determined by **10 of 13** tasks being correctly performed and demonstrating a level of competency as referenced by the NFPA and FAA.

No.	Tasks	Yes	No	
1	Locates specific aircraft information in the <i>USAF T.O. 00-105E-9</i>			
2	Identifies / describes the propulsion system and fuel type			
3	Identifies / describes the fuel storage locations and quantities			
4	Identifies / describes possible locations of weapons and munitions stores			
5	Identifies / describes the locations of pyrotechnics or other HAZMATS			
6	Identifies / describes the aircrew numbers and locations			
7	Identifies / describes the passenger capacities and locations			
8	Identifies / describes normal and emergency means of ingress / egress			
9	Identifies / describes explosive actuated escape hatches or canopy jettison mechanisms and trajectory / shrapnel areas to avoid			
10	Identifies / describes presence of ejection systems, ejection system activation mechanisms, aircrew / passenger restraints, and any seat securing procedures			
11	Identifies / describes the location of engine and battery shutdown controls			
12	Identifies / describes other hazards (radar/EMF, weapon lines of fire, external stores jettison hazards, jet engine intake/exhaust, prop /rotor)			
13	Completes all tasks in a clear and professional manner			
Please indicate skill outcome			PASS	FAIL

Evaluator Comments: _____

Evaluator Signature: _____ **Evaluator #** _____



PENNSYLVANIA STATE FIRE ACADEMY AIRPORT FIREFIGHTER SKILL STATIONS

STATION L – Three-Dimensional (3-D) Fuel Fire		Reference NFPA 1003 (2015 Edition) Chapter 4 Random Station JPRs 4.3.3, 4.2.4	
Test Site	Test Date	Candidate #	Check the Test Type ____ Initial ____ Retest

Directions: As a team member utilizing a handline, select the appropriate agent and / or agents, control and extinguish a three-dimensional (3-D) fuel fire Do you have any questions?

Performance Outcome: Pass / Fail is determined by **9 of 13** tasks being correctly performed and demonstrating a level of competency as referenced by the NFPA and FAA.

No.	Tasks	Yes	No	
1	Properly dons and uses full PPE			
2	Properly deploys handline from the reel or other stowage			
3	Attacks from upwind and upgrade (if feasible)			
4	Demonstrates the proper agent application technique			
5	Adjusts the nozzle pattern appropriately in response to changing conditions			
6	Establishes and maintains an initial rescue / egress path			
7	Attempts to sweep the fire away from and cool exposures			
8	Continues to advance as the fire is knocked down			
9	Avoids plunging the water stream directly into the ground			
10	Demonstrates proper line handling technique in the back up position			
11	Recognizes potential for re-ignition and initiates corrective action by re-applying agent to maintain a foam blanket until hazard(s) are eliminated			
12	Secures fuel source to eliminate re-ignition			
13	Completes all tasks without compromising personal or team safety			
Please indicate skill outcome			PASS	FAIL

Evaluator Comments: _____

Evaluator Signature: _____

Evaluator # _____



PENNSYLVANIA STATE FIRE ACADEMY AIRPORT FIREFIGHTER SKILL STATIONS

STATION M – Incident Size-up & Report		Reference NFPA 1003 (2015 Edition) Chapter 4 Random Station JPR 4.2.2	
Test Site	Test Date	Candidate #	Check the Test Type ____ Initial ____ Retest

Evaluator Note: Photo / visual simulation of an aircraft incident and a portable or mobile radio (radio need not be operational) are needed for this skill station.

Directions: You are the person in charge of the first response unit on the scene of an aircraft incident shown before you. Using the radio provided, demonstrate the procedures you would follow, state the information you would relay, and the instructions you would give to other responding units and your dispatch center. Do you have any questions?

Performance Outcome: Pass / Fail is determined by **6 of 6** tasks being correctly performed and demonstrating a level of competency as referenced by the NFPA and FAA.

No.	Tasks	Yes	No
1	Follows proper 2-way radio protocol		
2	Announces arrival on-scene		
3	Assumes command per ICS protocol		
4	Accurately relays the following information: ____ Confirms (or corrects, as appropriate) accurate incident location as dispatched ____ Identifies type of aircraft ____ Identifies observable exterior conditions in a brief, precise format ____ Describes observed status of occupants ____ Gives a concise statement of the candidate's unit's immediate course of action ____ Delivers brief, clear instructions or assignments to additional arriving units		
5	Delivers the report in a controlled, clear understandable voice		
6	Completes all tasks in a clear and professional manner		
Please indicate skill outcome		PASS	FAIL

Evaluator Comments: _____

Evaluator Signature: _____ **Evaluator #** _____



PENNSYLVANIA STATE FIRE ACADEMY AIRPORT FIREFIGHTER SKILL STATIONS

STATION N – Patient Rescue		Reference NFPA 1003 (2015 Edition) Chapter 4 Random Station JPRs 4.4.2, 4.4.1	
Test Site	Test Date	Candidate #	Check the Test Type ____ Initial ____ Retest

Directions: As a member of a team and given the equipment provided, access, disentangle, and safety remove from the immediate hazard area an entrapped patient. Do you have any questions?

Performance Outcome: Pass / Fail is determined by **7 of 9** tasks being correctly performed and demonstrating a level of competency as referenced by the NFPA and FAA.

No.	Tasks	Yes	No	
1	Properly dons and uses PPE			
2	Gains access to an entrapped patient			
3	Selects the appropriate equipment to perform extrication			
4	Utilizes equipment appropriately to disentangle the patient			
5	Appropriately packages patient for removal			
6	Extricates/removes patient from the hazard area			
7	Minimizes disturbing evidence – only what is necessary to gain access to patient(s)			
8	Maintains accurate accountability of patients processed			
9	Completes all tasks without compromising personal or team safety			
Please indicate skill outcome			PASS	FAIL

Evaluator Comments: _____

Evaluator Signature: _____ **Evaluator #** _____