

NFPA 1010: 2024 Edition, Chapter 8 Airport Firefighter

Below please find what has been previously approved by the Committee on Accreditation (COA) for this level of certification. This example does not take into consideration “Document Review”, “Portfolio”, or “Other testing methods.”

If your agency selects completing their online Assessment Methodology Matrix (AMM) utilizing these test methods, our Technical Analysts may place your application under a COA meeting consent agenda bypassing the usual COA review.

The spaces identified below with an “X” must be replaced with the appropriate cognitive test item numbers (e.g. Questions 1,4,6,7,9, etc.) or the score sheet numbers under Product, Psychomotor/Process methods as score sheet numbers (e.g.- SS 101, 202, and 304, etc.). Rows marked with an **X*** with an adjoining **X*** indicate either one or both of the methodologies may be utilized.

	Knowledge-Based Assessments		Performance-Based Assessments	
	(graded after submission)		(graded in real-time as they are performed)	
Section	Cognitive (e.g. Multiple Choice, Short Answer, Discretionary Time with Resources)	Product (e.g., document or develop a budget, proposal, lesson plan)	Psychomotor (Primarily an observable physical task. e.g., don, doff)	Process (Primarily a mental or verbalized task. e.g., inspect)
8.1.1* General Knowledge Requirements.				
Fundamental aircraft firefighting techniques, including the approach, positioning, initial attack, and selection, application, and management of the extinguishing agents; limitations of various sized hand lines; use of personal protective equipment (PPE); fire behavior; firefighting techniques in oxygen-enriched atmospheres; reaction of aircraft materials to heat and flame; critical components and hazards of civil aircraft construction and systems related to ARFF operations; special hazards associated with military aircraft systems; a national defense area and limitations within that area; characteristics of different aircraft fuels; hazardous areas in and around aircraft; aircraft fueling systems (hydrant/vehicle); aircraft egress/ingress (hatches, doors, and evacuation chutes); hazards associated with aircraft cargo, including dangerous goods; hazardous areas, including entry control points, crash scene perimeters, and requirements for operations within the hot, warm, and cold zones; and critical stress management policies and procedures.				
8.1.1	X			
8.1.2 General Skills Requirements.				
Don PPE; operate hatches, doors, and evacuation chutes; approach, position, and initially attack an aircraft fire; select, apply, and manage extinguishing agents; shut down aircraft systems, including engine, electrical, hydraulic, and fuel systems; operate aircraft extinguishing systems, including cargo area extinguishing systems.				

8.1.2			X
8.2.1			
Respond to day and night incidents on and adjacent to the airport, given an assignment, operating conditions, a location, a grid map, a vehicle, and a prescribed response time, so that the route selected and taken provides access to the site within the allotted time.			
8.2.1			X
(A) Requisite Knowledge.			
Airport familiarization, including runway and taxiway designations, frangible gate locations, airport markings, lights, instrument landing system (ILS) critical areas, and critical rescue and firefighting access areas, recognize the impact of low-visibility conditions on movement areas and areas of response in and close to the airport; designated isolation areas; vehicular traffic controls on airfield; bridge load limits; controlled access points; aircraft traffic patterns and taxi routes; fuel storage and distribution locations; airport and immediate local area topographic layout, drainage systems, water supplies, airport facilities, and security.			
8.2.1 (A)	X		
(B) Requisite Skills.			
Read, interpret, and take correct action related to grid maps, water distribution maps, airport markings, and lights.			
8.2.1 (B)			X
8.2.2			
Communicate critical incident information regarding an incident on or adjacent to an airport, given an assignment involving an incident and an incident management system (IMS) protocol, so that the information provided is accurate for the incident commander.			
8.2.2			X
(A) Requisite Knowledge.			
Incident management system (IMS) protocol, the airport emergency plan, airport and aircraft familiarization, communications equipment and procedures, and incident communications procedures.			
8.2.2 (A)	X		
(B) Requisite Skills.			
Operate communications systems, communicate an accurate situation report, implement incident management system (IMS) protocol and airport emergency plan, and recognize aircraft types.			

8.2.2 (B)			X
8.2.3			
Communicate with applicable air traffic control facilities, given a response destination on or adjacent to an airport and radio equipment, so that all required clearances are obtained.			
8.2.3			X
(A) Requisite Knowledge.			
Airfield familiarization, airport operational procedures, avoiding runway/aircraft movement area incursion, communications equipment and frequencies, tower light signals, aviation terminology, and phonetic alphabet.			
8.2.3 (A)	X		
(B) Requisite Skills.			
Operate communications equipment and use aviation terminology and phonetic alphabet.			
8.2.3 (B)			X
8.2.4*			
Perform an airport operation, given an assignment, a hazardous condition, and the airport policies and procedures, so that unsafe conditions are detected and reduced in accordance with the airport policies and procedures.			
8.2.4			X
(A) Requisite Knowledge.			
Airport and aircraft policies and procedures for hazardous conditions.			
8.2.4 (A)	X		
(B) Requisite Skills.			
Recognize hazardous conditions and initiate corrective action.			
8.2.4 (B)			X
8.3.1*			
Extinguish an aircraft fuel spill fire, given approved PPE, an assignment, agent application procedures, a firefighting vehicle hand line flowing a minimum of 95 gpm (359 L/min) of approved foam extinguishing agent, and a fire sized to the flow rate used, so that the agent is applied using the prescribed techniques and the fire is extinguished as required by the AHJ.			

8.3.1			X
(A) Requisite Knowledge.			
The fire behavior of aircraft fuels in pools, physical properties and characteristics of aircraft fuel, and agent application rates and densities.			
8.3.1 (A)	X		
(B) Requisite Skills.			
Operate fire streams and apply agent.			
8.3.1 (B)			X
<u>8.3.2*</u>			
Extinguish an aircraft fuel spill fire, given an assignment, approved PPE, an ARFF vehicle turret flowing the approved minimum required flow, a fire sized to the approved flow rate used, and the procedures for agent application, so that the agent is applied according to procedures and the fire is extinguished as required by the AHJ.			
8.3.2			X
(A) Requisite Knowledge.			
Operation of ARFF vehicle agent delivery systems, the fire behavior of aircraft fuels in pools, physical properties and characteristics of aircraft fuel, the procedures for agent application, and agent application rates and densities.			
8.3.2 (A)	X		
(B) Requisite Skills.			
Apply firefighting agents and streams using ARFF vehicle turrets.			
8.3.2 (B)			X
<u>8.3.3*</u>			
Extinguish a three-dimensional aircraft fuel fire as a member of a team, given a team, approved PPE, an assignment, firefighting vehicle hand line(s) using primary and secondary agents, and agent application procedures, so that a dual-agent attack is used, the agent is applied according to procedures, the fire is extinguished, and the fuel source is secured.			
8.3.3			X

(A) Requisite Knowledge.

The fire behavior of aircraft fuels in solid, pressurized, and atomized states; physical properties and characteristics of aircraft fuel; advantages and limitations of agents; agent application rates and densities; agent application procedures; and methods of controlling fuel sources.

[8.3.3](#)
(A)

X

(B) Requisite Skills.

Operate fire streams and apply agents, and secure fuel sources.

[8.3.4 \(B\)](#)

X

[8.3.4*](#)

Attack a fire on the interior of an aircraft while operating as a member of a team, given a team, approved PPE, an assignment, a firefighting vehicle hand line, an extinguishing agent, and a ladder or other means of accessing the aircraft, so that team integrity is maintained, the attack line is deployed for advancement, ladders or other means are used, access is gained into the fire area, effective agent application practices are used, the fire is approached, attack techniques facilitate suppression given the level of the fire, hidden fires are located and controlled, hazards are avoided or managed, and the fire is brought under control.

[8.3.4](#)

X

(A) Requisite Knowledge.

Techniques for accessing the aircraft interior according to the aircraft type, methods for advancing hand lines from a firefighting vehicle, precautions to be followed when advancing hose lines to a fire, observable results that a fire stream has been applied, dangerous structural conditions created by fire, principles of exposure protection, potential long-term consequences of exposure to products of combustion, physical states of matter in which fuels are found, common types of accidents or injuries and their causes, the role of the backup team in fire attack situations, attack and control techniques, and techniques for exposing hidden fires.

[8.3.4](#)
(A)

X

(B) Requisite Skills.

Deploy firefighting vehicle hand line on an interior aircraft fire; gain access to aircraft interior; open, close, and adjust nozzle flow and patterns; apply agent using direct, indirect, and combination attacks; advance charged and uncharged hose lines up ladders and up and down interior and exterior stairways; and locate and suppress interior fires.

[8.3.4 \(B\)](#)

X

[8.3.5*](#)

Attack an engine or auxiliary power unit/emergency power unit (APU/EPU) fire on an aircraft while operating as a member of a team, given approved PPE, an assignment, firefighting vehicle hand line or turret, a correct

agent, and agent application procedures, so that agent application procedures are followed, the fire is extinguished, and the engine or APU/EPU is shut down.

[8.3.5](#)

X

(A) Requisite Knowledge.

Techniques for accessing the aircraft engines and APU/EPUs, operation of on-board aircraft firefighting systems and potential hazards, safety procedures, methods for advancing hand line from a firefighting vehicle, methods for operating turrets, and methods for shutting down engine and APU/EPU operation.

[8.3.5](#)

(A)

X

(B) Requisite Skills.

Deploy and operate firefighting vehicle hand line, operate turrets, gain access to aircraft engine and APU/EPU, and shut down engine and APU.

[8.3.5 \(B\)](#)

X

8.3.6

Attack a wheel assembly fire, as a member of a team, given PPE, a team, an assignment, an ARFF vehicle hand line, and correct agent, so that the fire is extinguished.

[8.3.6](#)

X

(A) Requisite Knowledge.

Agent selection and application procedure, special safety considerations, and the characteristics of combustible metals.

[8.3.6](#)

(A)

X

(B) Requisite Skills.

Approach the fire in accordance with safety procedures, and select and apply agent.

[8.3.7 \(B\)](#)

X

8.3.7*

Ventilate an aircraft through available doors and hatches while operating as a member of a team, given PPE, an assignment, tools, and mechanical ventilation devices, so that openings are created, all ventilation barriers are removed, and the heat and other products of combustion are released.

[8.3.7](#)

X

(A) Requisite Knowledge.

Aircraft access points; principles, advantages, limitations, and effects of mechanical ventilation; the methods of heat transfer; the principles of thermal layering within an aircraft on fire; and the techniques and safety precautions for venting aircraft.

[8.3.7](#)
(A)

X

(B) Requisite Skills.

Operate doors, hatches, and forcible entry tools; operate mechanical ventilation devices; and remove barriers.

[8.3.7 \(B\)](#)

X

8.3.8*

Replenish extinguishing agents while operating as a member of a team, given an assignment, a firefighting vehicle, a fixed or mobile water source, a supply of agent, and supply lines and fittings, so that agents are available for application by the firefighting vehicle within the time established by the authority having jurisdiction (AHJ).

[8.3.8](#)

X

(A) Requisite Knowledge.

Resupply procedures during an incident and operation procedures for firefighting vehicle replenishment.

[8.3.8](#)
(A)

X

(B) Requisite Skills.

Connect hose lines and operate valves.

[8.3.8 \(B\)](#)

X

8.3.9

Preserve the aircraft accident scene, given an assignment and procedures, so that evidence is identified, protected, and reported according to procedures.

[8.3.9](#)

X*

X*

(A) Requisite Knowledge.

Airport emergency plan requirements for preservation of the scene, evidence identification, evidence protection, and evidence reporting procedures.

[8.3.9](#)
(A)

X

(B) Requisite Skills.

Preserve the scene for investigators, and identify, protect, and report evidence.

[8.3.9 \(B\)](#)

X*

X*

8.3.10*

Overhaul the accident scene, given PPE, an assignment, hand lines, and property conservation equipment, so that all fires are located, exposed, and extinguished and all property is protected from further damage.

[8.3.10](#)

X

(A) Requisite Knowledge.

Methods of complete extinguishment and prevention of re-ignition, reasons for conservation, operating procedures for property conservation equipment, overhaul procedures, signs of a hidden fire, methods of detecting hidden fires, and tools and equipment used for overhaul.

[8.3.10](#)
(A)

X

(B) Requisite Skills.

Use property conservation equipment, detect hidden fires, and use tools and equipment to expose hidden fires.

[8.3.10](#)
(B)

X

8.4.1*

Gain access into and out of an aircraft through normal entry points and emergency hatches, secure and shut down the aircraft, and assist in the evacuation process while operating as a member of a team, given approved PPE and an assignment, so that passenger evacuation and rescue can be accomplished.

[8.4.1](#)

X

(A) Requisite Knowledge.

Aircraft familiarization, including materials used in construction, aircraft terminology, automatic explosive devices, hazardous areas in and around aircraft, aircraft egress/ingress (hatches, doors, and evacuation chutes), military aircraft systems and associated hazards; capabilities and limitations of manual and power rescue tools and specialized high-reach devices, aircraft shutdown and safety procedures.

[8.4.1](#)
(A)

X

(B) Requisite Skills.

Operate power saws and cutting tools, hydraulic devices, pneumatic devices, and pulling devices; operate specialized ladders and high-reach devices; secure aircraft safety and shutdown.

8.4.1 (B)			X
8.4.2* Locate and disentangle an entrapped person from an aircraft as a member of a team, given approved PPE, a team, an assignment, and rescue tools, so that the person is freed from entrapment without undue further injury and hazards are managed.			
8.4.2			X
(A) Requisite Knowledge. Capabilities and limitations of rescue tools, search procedures, hazard identification, and control methods.			
8.4.2 (A)	X		
(B) Requisite Skills. Perform search procedures, control hazards, remove victims, and operate rescue tools.			
8.4.2 (B)			X
8.4.3 Implement initial triage of the victims of an aircraft accident, given PPE, an assignment, and the triage protocol of the AHJ, so that each victim is evaluated and correctly categorized according to protocol.			
8.4.3			X
(A) Requisite Knowledge. Categories of triage according to the triage protocol of the AHJ, and methods of assessment.			
8.4.3 (A)	X		
(B) Requisite Skills. Triage patients per protocol.			
8.4.3 (B)			X