

STATE OF INDIANA

JOB PERFORMANCE REQUIREMENTS

AIRPORT FIRE FIGHTER-AIRCRAFT CRASH AND RESCUE

PURPOSE FOR AIRPORT FIREFIGHTER-AIRCRAFT CRASH AND RESCUE

The Job Performance Requirements (JPR) for Airport Firefighter-Aircraft Crash and Rescue, as determined by the Indiana Board of Firefighting Personnel Standards and Education is focused on firefighters who are or want to become certified as an Airport Fire Fighter-Aircraft Crash and Rescue. The Indiana Board of Fire Fighting Personnel Standards and Education (BFPSE) has determined the JPR's for Airport Firefighter-Aircraft Crash and Rescue, shall be based on NFPA 1003 (2005 Edition) *Standard for Professional Qualifications for Airport Fire Fighters, Chapter 6*. It is with this purpose that the Airport Fire Fighter-Aircraft Crash and Rescue is established within this standard, Indiana Administrative Code 655 IAC 1-2.1-7.

To be eligible for certification in the Indiana Airport Fire Fighter-Aircraft Crash and Rescue program, firefighters must fulfill the following prerequisites and requirements:

1. Be **certified as a Firefighter II or First Class Firefighter for a period of at least one** (1) year prior to date of the application.
2. Successfully **complete all of the required JPR's**, administered by the Lead Evaluator per, the policies set forth by the Board of Firefighting Personnel Standards and Education.
3. **Pass a cognitive examination** administered by an approved Proctor, as determined by the Indiana Board of Firefighting Personnel Standards and Education.
4. Complete an "**Application for Certification**" form, ensure that the Lead Evaluator has signed the "**Lead Evaluators Acknowledgement**" form and submit all forms to the Indiana **Homeland Security Training** Institute. Procedures for completing the forms and the address for PSTI are included later in this booklet.

APPROVED TRAINING COURSES

The BFPSE does not require the candidate to enroll in a particular training course for Airport Firefighter-Aircraft Crash and Rescue. Certification is based on objectives concurrent with NFPA 1003 (2005 Edition), Chapter 6.

SAFETY ON THE FIRE GROUND

The BFPSE recommends that all Instructors, Lead Instructors, Evaluators, and Lead Evaluators have a complete understanding of the responsibility accepted by assuming the aforementioned titles. It is important to remember that you are responsible for the safety of all students, bystanders, civilians, or any other person while on the fire/training grounds. Information regarding the laws and standards of training ground safety, may be found in the following:

STATE OF INDIANA

JOB PERFORMANCE REQUIREMENTS AIRPORT FIRE FIGHTER-AIRCRAFT CRASH AND RESCUE

OSHA 1910.456, 1910.120, 1910.134, 1910.1013
NFPA 1500, 1403, 1404, 1410, 1451, 1470, 1976, 1981, 1982

JOB PERFORMANCE REQUIREMENTS COURSE EVALUATION

The candidate must complete all JPR's included within this booklet, throughout the course. An approved evaluator must witness the candidate's performance, mark as "Pass" or "Fail", document further education recommendations (if necessary), and sign and date each JPR.

After the candidate has successfully completed each JPR, and the Evaluator has signed each module, the Lead Evaluator must sign a "Lead Evaluators Acknowledgement" and forward this booklet to the candidate's home fire department. This booklet should be kept in the candidate's personal training file.

AIRPORT FIREFIGHTER-AIRCRAFT CRASH AND RESCUE CERTIFICATION

Firefighters meeting all of the requirements and prerequisites are eligible to apply to the Board of Firefighting Personnel Standards and Education for certification.

The candidate is required, upon request from IHSTI staff, to provide proof that all prerequisites and requirements have been met.

To apply, complete an "Application for Certification" form and forward it along with an original copy of the "Lead Evaluators Acknowledgement" to the **Indiana Homeland Security Training Institute** at the following address:

Indiana Homeland Security Training Institute
302 West Washington Street
Room E239
Indianapolis, Indiana 46204

WRITTEN EXAMINATION FOR AIRPORT FIRE FIGHTER-AIRCRAFT CRASH AND RESCUE

The written examination is a randomly generated 150-questioned test covering the Airport Fire Fighter-Aircraft Crash and Rescue standard. The examination questions are referenced from the following books.

Reference List for the Airport Fire Fighter-Aircraft Crash and Rescue Test Bank

1. NFPA 1003, Standard for Professional Qualifications for Airport Fire Fighter, 2005 Edition
2. NFPA 1500, Fire Department Occupational Safety and Health Program
3. NFPA 402M, Aircraft Rescue and Fire Fighting Operations, 1993
4. IFSTA Hazardous Materials for First Responders, 2nd. Edition
5. IFSTA Aircraft Rescue and Fire Fighting, 4th. Edition.
6. Federal Aviation Regulation, Part 139
7. IFSTA Principles of Extrication, 1st. Edition, 2nd. Printing
8. Fourteen (14) other minor references are used for various NFPA Standards and Federal Regulations.

STATE OF INDIANA

JOB PERFORMANCE REQUIREMENTS AIRPORT FIRE FIGHTER-AIRCRAFT CRASH AND RESCUE

SAMPLE WRITTEN EXAMINATION QUESTIONS:

1. If a centrifugal pump loses prime, check for:
 - A. Loose intake connection
 - B. A clogged strainer
 - C. An open drain
 - D. All of the above**

2. To flow test a hydrant, the _____ must be known.
 - A. Water main size
 - B. Number of outlets on the hydrant
 - C. Size of outlet and coefficient**
 - D. Height of the water tower

RELEASE OF STUDENT INFORMATION

The Public Records Law of the Indiana Code prohibits the release of participant grades to anyone other than the participant unless written permission is first obtained from the participant. The registration form which is signed before each course of certification exam is conducted, contains the following information release statement which the participants acknowledges when he/she signs a form: "I hereby authorize the release any or all information concerning my enrollment in this course only to the Chief Officer of my organization or his or her designee".

SCORING TEST AND RETEST PROCEDURES

Students may retake a test within 90 days **from** the date of the first test. If the student fails the second test, he/she has the option to:

1. Retake the complete course
2. Wait for a period of one (1) year to challenge the test again.

All cognitive exams are computer scanned for accurate grading; any questions with more than one answer marked; will be counted as an incorrect answer and deducted from the score. Any questions that are left blank will also be counted as incorrect and deducted. The final score is determined by deducting the number of incorrect and blank answers times the question point value from 100% to establish the raw score. All knowledge examinations administered by the Board shall require a 70% minimum passing score. The raw score is then rounded to the nearest whole number to establish the final score.

STATE OF INDIANA

JOB PERFORMANCE REQUIREMENTS AIRPORT FIRE FIGHTER-AIRCRAFT CRASH AND RESCUE

Lead Evaluator Form

AIRPORT FIRE FIGHTER-AIRCRAFT CRASH AND RESCUE

CANDIDATE: _____

EVALUATOR: _____

DATE: _____ **COURSE NUMBER:** _____

LOCATION: _____

OBJECTIVE: The Job Performance Requirement Skills Evaluation System is divided into Skills Stations based upon subject headings within the certification standard. Each of these Skill Stations is then broken down into Skill Tests drawn from each component of the standard. This is an “Evaluation” and not a “Training Session”. The Candidate must satisfactorily pass each skill.

INSTRUCTORS AND EVALUATORS: Each skill Test presented within this Skill Packet is based upon Job Performance Requirements identified by The National Protection Association (NFPA) and approved by the Indiana Board of Firefighting Personnel Standards and Education (BFPSE).

CANDIDATES:

If the Candidate cannot perform a task, the evaluator will identify that task as a “Recommended Area for Further Training”. Each Candidate shall advise the Evaluator when they have completed all evaluations scheduled for that day. Candidates have the option to retake any skill test at the end of the evaluation session or during a make-up session by the Instructor.

(NOTICE: An asterisk (*) following the number or letter designating a paragraph indicates that explanatory material on the paragraph can be found in Appendix A of NFPA 1003, *Standard for Professional Qualifications Airport Fire Fighters, 2005 Edition*.)

STATE OF INDIANA

JOB PERFORMANCE REQUIREMENTS AIRPORT FIRE FIGHTER-AIRCRAFT CRASH AND RESCUE

GENERAL REQUIREMENTS FOR AIRPORT FIRE FIGHTER-AIRCRAFT CRASH AND RESCUE

655 IAC 1-2.1-7 Airport Fire Fighter-Aircraft Crash and Rescue

Authority: IC 22-14-2-7

Affected: IC 22-14-2-7

Section 7. (a) The minimum training standards for Airport Fire Fighter-Aircraft Crash and Rescue certification shall be as set out in that certain document, being titled as NFPA 1003, Standard for Professional Qualifications for Airport Fire Fighters, Chapter 6, 2005 Edition, published by NFPA, Batterymarch Park, Quincy Massachusetts 02269, which is hereby adopted by reference and made part of this rule as if fully set out in this rule. To the extent that Chapter 6 of NFPA 1003 requires compliance with another NFPA standard, such standard shall be that which is referenced to in Chapter 6.

(b). The candidate shall have been certified as at least a Fire Fighter II or First Class Fire Fighter for a period of at least one (1) year prior to the date of application. (*Board of Firefighting Personnel Standards and Education; 655 IAC 1-2.1-7: filed July 18, 1996, 3:00 p.m.: 19 IR 3391: November 16, 2001, 4:37 p.m.: 25 IR 1162*)

2-1 Entry Requirements.

Prior to entering training to meet the requirements of Chapter 5, the candidate shall meet the following requirements:

- (1) The minimum educational requirements established by the authority having jurisdiction
- (2) The age requirements established by the authority having jurisdiction
- (3) The medical requirements of NFPA 1582, Standard on Medical Requirements for Fire Fighters

2-2 Physical Fitness Requirements.

Physical fitness requirements shall be developed and validated by the authority having jurisdiction. Physical fitness requirements shall be in compliance with applicable equal opportunity regulations and other legal requirements.

STATE OF INDIANA

JOB PERFORMANCE REQUIREMENTS AIRPORT FIRE FIGHTER-AIRCRAFT CRASH AND RESCUE

GENERAL REQUIREMENTS FOR AIRPORT FIRE FIGHTER-AIRCRAFT CRASH AND RESCUE

Chapter 6 Airport Fire Fighter

6-1 General.

6.1.1 For qualification as an airport fire fighter, the candidate shall meet each of the job performance requirements defined in this chapter.

6.1.1.1 Duties. These requirements are divided into three major duties: response, fire suppression, and rescue.

6.1.1.2 Function. The primary function of the airport fire fighter shall be to execute fire suppression and rescue activities.

6.1.1.3* General Knowledge Requirements.

Fundamental aircraft fire-fighting techniques, including the approach, positioning, initial attack, and selection, application, and management of the extinguishing agents; limitations of various sized hand lines; use of proximity protective personal equipment (PrPPE); fire behavior; fire-fighting 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.

6.1.1.4 General Skills Requirements. Don PrPPE; 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.

6.1.2 The job performance requirements of this chapter shall be accomplished in accordance with the requirements of the authority having jurisdiction and NFPA 1500, *Standard on Fire Department Occupational Safety and Health Program*.

STATE OF INDIANA

JOB PERFORMANCE REQUIREMENTS

AIRPORT FIRE FIGHTER-AIRCRAFT CRASH AND RESCUE

NFPA 1003 (2005 Edition) Chapter 6, required skills:

6.2 Response: This duty involves the timely arrival at an incident or accident and the capability to perform fire suppression, rescue operations, or both. The duty also includes responding to hazardous conditions and performing standby operations.

6.2.1 Respond to day and night incidents or accidents 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.

(a) Requisite Knowledge: Airport familiarization including runway and taxiway designations, frangible gate locations, airport markings, lights, instrument landing system (ILS) critical areas, critical rescue and fire-fighting access areas, 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.

(b) Requisite Skills: Read, interpret, and take correct action related to grid maps, water distribution maps, airport markings, and lights.

6.2.2 Communicate critical incident information regarding an incident or accident on or adjacent to an airport, given an assignment involving an incident or accident and an incident management system (IMS) protocol, so that the information provided is accurate and sufficient for the incident commander to initiate an attack plan.

(a) Requisite Knowledge: Incident management system protocol, the airport emergency plan, airport and aircraft familiarization, communications equipment and procedures.

(b) Requisite Skills: Operate communications systems effectively, communicate an accurate situation report, implement IMS protocol and airport emergency plan, recognize aircraft types.

6.2.3 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.

(a) Requisite Knowledge: Communications equipment and frequencies, tower light signals, fire department and airport terminology.

(b) Requisite Skills: Operate communications equipment effectively.

STATE OF INDIANA

JOB PERFORMANCE REQUIREMENTS

AIRPORT FIRE FIGHTER-AIRCRAFT CRASH AND RESCUE

6.2.4* Perform an airport standby operation, given an assignment, a hazardous condition, and the airport standby policies and procedures, so that unsafe conditions are detected and mitigated in accordance with the airport policies and procedures.

(a) Requisite Knowledge: Airport and aircraft policies and procedures for hazardous conditions.

(b) Requisite Skills: Recognize hazardous conditions and initiate corrective action.

6.3 Fire Suppression.

This duty involves the attack, control, and extinguishment of fires involving aircraft, aircraft cargo, airport facilities, and other equipment related to airport operations and property conservation. The primary purpose of this duty is to protect lives and property.

6.3.1* Extinguish a 250-ft² (23.2-m²) aircraft fuel spill fire, given PrPPE and a minimum of a 100-lb (45-kg) dry chemical fire extinguisher, so that the agent is applied using the proper technique and the fire is extinguished in 25 seconds.

(a) Requisite Knowledge: The fire behavior of aircraft fuels in pools, physical properties, characteristics of aircraft fuel.

(b) Requisite Skills: Operate dry chemical extinguishers equipped with a hose line, including removing and operating hose and applying agent.

6.3.2* Extinguish an aircraft fuel spill fire, given PrPPE, an assignment, an ARFF vehicle hand line flowing a minimum of 95 gpm (359 L/min) of AFFF extinguishing agent, and a fire sized to the AFFF gpm flow rate divided by 0.13 (gpm/0.13 = fire square footage) (L/min/0.492 = 0.304 m²), so that the agent is applied using the proper techniques and the fire is extinguished in 90 seconds.

(a) Requisite Knowledge: The fire behavior of aircraft fuels in pools, physical properties and characteristics of aircraft fuel, agent application rates and densities.

(b) Requisite Skills: Operate fire streams and apply agent.

STATE OF INDIANA

JOB PERFORMANCE REQUIREMENTS

AIRPORT FIRE FIGHTER-AIRCRAFT CRASH AND RESCUE

6.3.3* Extinguish an aircraft fuel spill fire, given PrPPE, an ARFF vehicle turret, and a fire sized to the AFFF flow rate of 0.13 gpm (0.492 L/min) divided by the square feet of fire area, so that the agent is applied using the proper technique and the fire is extinguished in 90 seconds.

(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, agent application rates and densities.

(b) Requisite Skills: Apply fire-fighting agents and streams using ARFF vehicle turrets.

6.3.4* Extinguish a three-dimensional aircraft fuel fire, given PrPPE, an assignment, and ARFF vehicle hand line(s) using primary and secondary agents, so that a dual agent attack is used, the agent is applied using the proper technique, the fire is extinguished, and the fuel source is secured.

(a) Requisite Knowledge: The fire behavior of aircraft fuels in three-dimensional and atomized states, physical properties and characteristics of aircraft fuel, agent application rates and densities, and methods of controlling fuel sources.

(b) Requisite Skills: Operate fire streams and apply agents, secure fuel sources.

6.3.5* Attack a fire on the interior of an aircraft while operating as a member of a team, given PrPPE, an assignment, an ARFF vehicle hand line, and appropriate agent, so that team integrity is maintained, the attack line is deployed for advancement, ladders are correctly placed when used, access is gained into the fire area, effective water application practices are used, the fire is approached, attack techniques facilitate suppression given the level of the fire, hidden fires are located and controlled, correct body posture is maintained, hazards are avoided or managed, and the fire is brought under control.

(a) Requisite Knowledge: Techniques for accessing the aircraft interior according to the aircraft type, methods for advancing hand lines from an ARFF 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, techniques for exposing hidden fires.

(b) Requisite Skills: Deploy ARFF 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; locate and suppress interior fires.

STATE OF INDIANA

JOB PERFORMANCE REQUIREMENTS

AIRPORT FIRE FIGHTER-AIRCRAFT CRASH AND RESCUE

6.3.6* 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 PrPPE, an assignment, ARFF vehicle hand line or turret, and appropriate agent, so that the fire is extinguished and the engine or APU/EPU is secured.

(a) Requisite Knowledge: Techniques for accessing the aircraft engines and APU/EPUs, methods for advancing hand line from an ARFF vehicle, methods for operating turrets, methods for securing engine and APU/EPU operation.

(b) Requisite Skills: Deploy and operate ARFF hand line, operate turrets, gain access to aircraft engine and APU/EPU, secure engine and APU.

6.3.7* Attack a wheel assembly fire, given PrPPE, an assignment, an ARFF vehicle hand line and appropriate agent, so that the fire is controlled.

(a) Requisite Knowledge: Agent selection criteria, special safety considerations, and the characteristics of combustible metals.

(b) Requisite Skills: Approach the fire in a safe and effective manner, select and apply agent.

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

(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; the techniques and safety precautions for venting aircraft.

(b) Requisite Skills: Operate doors, hatches, and forcible entry tools; operate mechanical ventilation devices and remove barriers.

6.3.9* Replenish extinguishing agents while operating as a member of a team, given an assignment, an ARFF 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 ARFF vehicle within the time established by the authority having jurisdiction (AHJ).

(a) Requisite Knowledge: Resupply procedures, operation procedures for ARFF vehicle replenishment, and pumps and transfer devices.

(b) Requisite Skills: Connect hose lines, operate valves, and operate pumps and transfer devices.

STATE OF INDIANA

JOB PERFORMANCE REQUIREMENTS

AIRPORT FIRE FIGHTER-AIRCRAFT CRASH AND RESCUE

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

(a) Requisite Knowledge: Airport emergency plan requirements for preservation of the scene, evidence identification, evidence protection, and evidence reporting procedures.

(b) Requisite Skills: Preserve the scene for investigators, and identify, protect, and report evidence.

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

(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.

(b) Requisite Skills: Use property conservation equipment, detect hidden fires, and use tools and equipment to expose hidden fires.

6.4* Rescue. This duty involves gaining access to an aircraft and assisting in the evacuation process, performing disentanglement, and initial triage.

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

(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 safetying procedures..

(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.

6.4.2* Locate and disentangle an entrapped victim from an aircraft, given PrPPE, a team and an assignment, and rescue tools, so that the victim is freed from entrapment without undue further injury and hazards are managed.

(a) Requisite Knowledge: Capabilities and limitations of rescue tools, search procedures, hazard identification, and control methods.

(b) Requisite Skills: Perform search procedures, control hazards, remove victims and operate rescue tools.

STATE OF INDIANA

JOB PERFORMANCE REQUIREMENTS

AIRPORT FIRE FIGHTER-AIRCRAFT CRASH AND RESCUE

6.4.3 Implement initial triage of the victims of an aircraft accident, given PrPPE, an assignment, and the triage protocol of the AHJ, so that each victim is evaluated and correctly categorized according to protocol.

(a) Requisite Knowledge: Categories of triage according to the triage protocol of the AHJ, methods of assessment.

(b) Requisite Skills: Assess the critical factors of patient condition and label patient for triage category.

NFPA 1003 (2005 Edition) Appendix

Due to improvements in the design and construction of modern aircraft and the increased structural integrity that results, the potential exists for significant interior fires that cannot be extinguished using external aircraft fire-fighting tactics. Because extinguishing aircraft interior fires is an essential task of the airport fire fighter, the Fire Fighter II requirement in this document is primary. The basic fire-fighting skills and knowledge required for Fire Fighter II in NFPA 1001, Standard for Fire Fighter Professional Qualifications, are essential to the airport fire fighter.

The requirement for first responder at the operational level (in NFPA 472, Standard for Professional Competence of Responders to Hazardous Materials Incidents) was included in this standard because of the airport fire fighter's potential for frequent exposure to a wide variety of hazardous materials. The potential exposure frequency is significantly greater than anticipated for the Fire Fighter II.

A-3-1.1.1 Airport fire fighters should possess a knowledge of military aircraft at those airports that accept military aircraft or at those airports that are co-located with a military installation with either separate or shared runways. This knowledge should include the following:

(a) Military cargo/passenger aircraft (C-5, C-9, C-17, C-21, C-141, C-130, C-9, C-135) are basically the same as civilian general aviation large-frame aircraft and present no additional hazards other than the cargo that might be carried on the aircraft.

NOTE: The AC-130 Gunship carries a variety of munitions that are fired from the left side of the aircraft.

(b) Military tanker aircraft (KC-10, KC-135, and KC-130) are basically the same as civilian versions except for the amount and location of fuel carried.

NOTE: Variants of the commercial 707 are also used by the military for command, control, and communications (AWACS, EC-135, etc.).

(c) Military fighter/attack aircraft (AV-8, A-10, F-14, F-15, F-16, F-18, F-22, and F-117) and bomber aircraft (B-1, B-2, B-52) present the highest risk to airport fire fighters. These aircraft are equipped with explosive devices and ejection systems, forward-firing weapons, and aft-firing flares and chaff of which the airport fire fighter should be aware.

(d) Military helicopter aircraft afford similar risks as those of A-3-1.1.1(c).

STATE OF INDIANA

JOB PERFORMANCE REQUIREMENTS

AIRPORT FIRE FIGHTER-AIRCRAFT CRASH AND RESCUE

(e) USAF Technical Order 00-105E-9 contains specific information concerning aircraft rescue and fire-fighting procedures and should be consulted prior to any attempt to perform rescue operations if trained military specialists are not available for immediate assistance. Copies of TO 00-105E-9 in hard copy or CD-ROM may be requested from HQ AFCEA/CEXF. This document contains specific information concerning fire-fighting and rescue operations for aircraft in the military inventory. It specifically addresses the following:

(1) Entry. If the emergency controls are activated, an explosive charge will explosively separate the canopy from the aircraft.

(2) Ejection Systems. All fighter, bomber, and attack aircraft are equipped with ejection seats. Once access has been gained to the cockpit, caution is extremely important, because these ejection seats, when activated, are propelled out of the aircraft by an explosive charge. Airport fire fighters should not touch or activate any controls.

NOTE: If a canopy or hatch has been separated from an aircraft, the ejection seat is automatically armed. Extreme caution must be exercised in crew removal.

(3) Extrication. The aircrew member is secured to the seat by a series of straps, harnesses, and restraint belts. These restraints can be released by cutting, if the release procedure is unknown.

(4) Ordnance. Fighter and attack aircraft will have forward firing ordnance located in the forward part of the fuselage or wings.

(5) Engine Shutdown. Engine shutdown usually can be accomplished by pulling T-handles, as on a commercial jet.

The NFPA Aircraft Familiarization Charts Manual, which contains complete diagrams of 115 types of aircraft, detailing their physical characteristics, is also helpful.

A-3-2.4 Hazardous conditions include special fuels, fueling operations (grounding and bonding), welding operations, hazardous materials operations, corrosion control, fuel cell maintenance, and military operations.

A-3-3.1 Concerns with the environmental impact of traditional flammable liquid training fires have caused many facilities to convert to propane-fueled simulators. The intent of this requirement is a safe and proper extinguishment technique for pool fires involving aircraft fuels. The use of pressurized flammable gas or flammable liquid is acceptable for this simulation.

A-3-3.2

See **A-3-3.1**.

A-3-3.3

See **A-3-3.1**.

STATE OF INDIANA

JOB PERFORMANCE REQUIREMENTS

AIRPORT FIRE FIGHTER-AIRCRAFT CRASH AND RESCUE

A-3-3.4 Three-dimensional or running fuel fires involve a fuel leak from an elevated or pressurized source. The fuel burns as it falls through the air, and, once on the ground, the burning fuel can pool or run across the ground surface. These fuel fires are extremely difficult to extinguish. They must be recognized and action must be taken to extinguish them early in the incident or accident for successful fire-fighting operations. Typically, these fires cannot be extinguished by smothering agents such as aqueous film-forming foam, because these agents cannot seal the surface and exclude oxygen. Such fires are more successfully extinguished by shutting off the fuel flow or by using agents, such as dry chemicals, that interfere with the chemical or chain reaction.

A-3-3.5 This requirement can be met by using a structural burn facility that is configured to simulate the interior layout and dimensions of an aircraft fuselage and that contains mannequins to simulate victims. The mock-up should include at least three metal seats and training dummies to simulate victims. It is intended that the size of the aircraft be the largest type that normally uses the airport and that the hand line be appropriate to the size of the aircraft. For information on training mockups, see Appendix B, NFPA 1003, 2005 Edition..

A-3-3.6 See Appendix B, NFPA 1003, 2005 Edition for information on training mock-ups.

A-3-3.7 See Appendix B, NFPA 1003, 2005 Edition for information on training mock-ups.

A-3-3.8 Training and evaluation of this task can be accomplished using actual aircraft or mock-ups and smoke-generation devices used for training.

A-3-3.9 The replenishment task is time critical. Evaluating the proficiency of potential ARFF personnel to replenish the extinguishing agents on an ARFF vehicle requires that the AHJ evaluate several factors related to its own airport emergency plan in order to establish a fair benchmark for personnel. The following factors influence this time constraint:

- (1) Size of the ARFF vehicles' agent reservoirs
- (2) Available replenishment methods and their agent flow capacities
- (3) Proximity of replenishment means to the potential ARFF emergency locations in and around the airport

In making these evaluations, the AHJ must keep in mind that its overall objective is to assure an adequate agent flow at the scene during an emergency.

STATE OF INDIANA

JOB PERFORMANCE REQUIREMENTS

AIRPORT FIRE FIGHTER-AIRCRAFT CRASH AND RESCUE

The following is an example of determining the replenishment time variable:

If the typical ARFF vehicle on the airport runway holds 1500 gal (5677 L) of water and 150 gal (568 L) of AFFF, the replenishment means is a fixed water hydrant located at the midway point of the runways and with a flow capacity of 250 gpm (946 L/min), and the average time to drive from the approach and departure end of any runway to the midpoint is 2 minutes, then a reasonable time to replenish a vehicle and return it to operation from the end of the runway is 18 minutes. This allows 2 minutes to drive to the hydrant, 4 minutes to connect to the hydrant, 7 minutes to fill the water tank, 3 minutes to disconnect from the hydrant, and 2 minutes to drive back to the end of the runway.

This may be considered a reasonable amount of time to replenish the vehicle at this particular airport, if additional vehicles are available to continue support at the emergency scene, but it may be entirely too slow for an airport where this ARFF vehicle is the only vehicle available to support an aircraft scene. In this case the replenishment plan needs to be reevaluated and adjusted to reduce the time required.

A-3-4 One of the primary tasks of rescue operations is for the airport fire fighter to maintain a habitable environment around the fuselage and assist with aircraft evacuation by stabilizing slide chutes and assisting and controlling the evacuees.

A-3-4.1 Training and evaluation of this task can be accomplished using actual aircraft or mock-ups.

A-3-4.2 Training and evaluation of this task can be accomplished using actual aircraft or mock-ups. .

STATE OF INDIANA

JOB PERFORMANCE REQUIREMENTS

AIRPORT FIRE FIGHTER-AIRCRAFT CRASH AND RESCUE

Skill Test 1 NFPA 1003 (2005 Edition) Chapter 6, Response

Objective: The timely arrival at an incident or accident and the capability to perform emergency functions. This duty also includes responding to hazardous conditions and performing standby operations.

TASK The candidate shall respond to a simulated incident or accident on or 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. Candidate will read, interpret, and take correct action related to grid maps, water distribution maps, airport markings, and lights. Consider the following points, among others:

- Shortest Route
- Terrain Considerations
- Wind Direction
- Aircraft Traffic

Equipment A vehicle, grid map, airport or simulation of an airport, a given assignment, operating condition, allotted time.

Attainment The candidate shall successfully complete the task by responding to the simulated accident location within 4 minutes.

Did the Candidate:	Pass	Fail
1.) Read grid maps, water distribution maps, airport markings, and lights?		
2.) Interpret the grid maps, water distribution maps, airport markings and lights?		
3.) Use all safety devices, such as, safety belts, etc?		
4.) Follow all applicable traffic control devices?		
5.) Complete the evolution within the allotted time frame?		
6.) Locate proper grid coordinates given a facility or point location on the map?		
7.) Identify most efficient response route to the scene given a grid map		
Recommendation for continued education.		

Candidate: _____

Evaluator: _____

Date: _____

STATE OF INDIANA

JOB PERFORMANCE REQUIREMENTS

AIRPORT FIRE FIGHTER-AIRCRAFT CRASH AND RESCUE

Skill Test 2 NFPA 1003 (2005 Edition) Chapter 6, Response

Objective: The timely arrival at an incident or accident and the capability to perform emergency functions. This duty also includes responding to hazardous conditions and performing standby operations

TASK The candidate shall communicate critical incident information regarding an incident or accident on or adjacent to an airport, given an assignment involving an incident or accident and an incident management system (IMS) protocol, so that the information provided is accurate and sufficient for the incident commander to initiate an attack plan.

Equipment Incident management system protocol, airport emergency plan, communication equipment and procedures, fire attack procedures, and a simulated aircraft accident scenario.

Attainment The candidate shall successfully complete the task, as determined by the Authority Having Jurisdictions Standard Operating Plan on Incident Management

Did the Candidate:	Pass	Fail
1.) Utilize the Incident Management System?		
2.) Use radio etiquette?		
3.) Operate communication devices?		
4.) Communicate a Brief Initial Report, Size-Up, and Situation Report?		
5.) Implement Incident Management System and airport emergency plan?		
6.) Recognize aircraft types?		

Recommendation for continued education?

Candidate: _____

Evaluator: _____

Date: _____

STATE OF INDIANA

JOB PERFORMANCE REQUIREMENTS

AIRPORT FIRE FIGHTER-AIRCRAFT CRASH AND RESCUE

Skill Test 3 NFPA 1003 (2005 Edition) Chapter 6, Response

Objective: The timely arrival at an incident or accident and the capability to perform emergency functions. This duty also includes responding to hazardous conditions and performing standby operations

TASK The candidate shall 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.

Equipment Communications equipment and frequencies, tower light signal plans, and a response destination.

Attainment The candidate shall successfully complete the task by reaching destination and not entering into restricted areas without tower approval.

Did the Candidate:	Pass	Fail
1.) Use radio terminology?		
2.) Use radio etiquette?		
3.) Operate communication devices?		
4.) Identify starting point, intended destination, and intended path of travel?		
5.) Confirm clearance with ground control?		
6.) Identify unit calling and request emergency clearance to travel within the air operations area?		

Recommendation for continued education?

Candidate: _____

Evaluator: _____

Date: _____

STATE OF INDIANA

JOB PERFORMANCE REQUIREMENTS

AIRPORT FIRE FIGHTER-AIRCRAFT CRASH AND RESCUE

Skill Test 4 NFPA 1003 (2005 Edition) Chapter 6, Response

Objective: The timely arrival at an incident or accident and the capability to perform emergency functions. This duty also includes responding to hazardous conditions and performing standby operations.

TASK The candidate shall perform an airport standby operation, given an assignment, a hazardous condition, and the airport standby policies and procedures, so that unsafe conditions are detected and mitigated in accordance with the airport policies and procedures.

Equipment A given hazardous condition, airport policies and procedures, standard operating procedures.

Attainment The candidate shall successfully complete the objective by correctly identifying all known and potential hazards for the scenario.

Did the Candidate:	Pass	Fail
1.) Recognize the hazardous situation and identify hazards?		
2.) Perform assigned operation in compliance with Airport policies and procedures?		
3.) Use all safety devices, such as, personal protective devices, etc?		
4.) Notify agencies as needed to mitigate hazard?		
5.) Complete the evolution within the allotted time frame?		

Recommendation for continued education.

Candidate: _____

Evaluator: _____

Date: _____

STATE OF INDIANA

JOB PERFORMANCE REQUIREMENTS

AIRPORT FIRE FIGHTER-AIRCRAFT CRASH AND RESCUE

Skill Test 5 NFPA 1003 (2005 Edition) Chapter 6, Fire Suppression

Objective: This duty involves the attack, control, and extinguishment of fires involving aircraft, aircraft cargo, airport facilities, and other equipment related to airport operations and property conservation. The primary purpose of this duty is to protect lives and property.

Task The candidate shall extinguish a 250-ft² (23.2-m²) aircraft fuel spill fire, given PrPPE and a minimum of a 100-lb (45-kg) dry chemical fire extinguisher, so that the agent is applied according to local procedures and the fire is extinguished in 25 seconds.

Equipment 100 pound dry chemical fire extinguisher or larger, full proximity protective clothing and equipment, SCBA, approved controlled burn area for fuel spill recreation.

Attainment The candidate shall successfully extinguish the fire in the allotted time-frame.

Did the Candidate:	Pass	Fail
1.) Use techniques applied with consideration to fire behavior of aircraft fuels, pooling of fuel fires, physical properties and characteristics of aircraft fuel		
2.) Place extinguisher system into operation?		
3.) Approach fire from the upwind position?		
4.) Direct agent at the base of the fire, using an aggressive sweeping motion?		
5.) Avoid splashing or churning fuel with agent stream?		
6.) Monitor area for re-ignition and extinguished within 25 seconds?		
Recommendation for continued education?		

Candidate: _____

Evaluator: _____

Date: _____

STATE OF INDIANA

JOB PERFORMANCE REQUIREMENTS

AIRPORT FIRE FIGHTER-AIRCRAFT CRASH AND RESCUE

Skill Test 6 NFPA 1003 (2005 Edition) Chapter 6, Fire Suppression

Objective: This duty involves the attack, control, and extinguishment of fires involving aircraft, aircraft cargo, airport facilities, and other equipment related to airport operations and property conservation. The primary purpose of this duty is to protect lives and property.

TASK The candidate shall extinguish an aircraft fuel spill fire, given PrPPE, an assignment, an ARFF vehicle hand line flowing a minimum of 95 gpm (359 L/min) of AFFF extinguishing agent, and a fire sized to the AFFF gpm flow rate divided by 0.13 (gpm/0.13 = fire square footage) (L/min/0.492 = 0.304 m²), so that the agent is applied using the proper techniques and the fire is extinguished in 90 seconds.

Equipment PrPPE, SCBA, AFFF and a hand line with minimum flow rate of 95 GPM, approved controlled burn area.

Attainment The candidate shall successfully complete the task within 90 seconds, each student shall act as a member of a team, and each member shall operate the nozzle.

Did the Candidate:	Pass	Fail
1.) Use techniques applied with consideration to fire behavior of aircraft fuels, pooling of fuel fires, physical properties and characteristics of aircraft fuel?		
2.) Charge handline and adjust nozzle pressure to produce effective pattern?		
3.) Approach fire from the upwind position?		
4.) Open and close nozzle slowly to prevent water hammer?		
5.) Avoid splashing or churning fuel with agent stream, apply agent with sweeping motion and avoid walking through the foam blanket?		
6.) Monitor area for re-ignition and extinguished within 90 seconds?		

Recommendation for continued education?

Candidate: _____

Evaluator: _____

Date: _____

STATE OF INDIANA

JOB PERFORMANCE REQUIREMENTS

AIRPORT FIRE FIGHTER-AIRCRAFT CRASH AND RESCUE

Skill Test 7 NFPA 1003 (2005 Edition) Chapter 6, Fire Suppression

Objective: This duty involves the attack, control, and extinguishment of fires involving aircraft, aircraft cargo, airport facilities, and other equipment related to airport operations and property conservation. The primary purpose of this duty is to protect lives and property.

TASK The candidate shall extinguish an aircraft fuel spill fire, given PrPPE, an ARFF vehicle turret, and a fire sized to the AFFF flow rate of 0.13 gpm (0.492 L/min) divided by the square feet of fire area, so that the agent is applied using the proper technique and the fire is extinguished in 90 seconds.

Equipment PrPPE, SCBA, ARFF type vehicle with turret, approved controlled burn area

Attainment The candidate shall successfully complete the task within the allotted time-frame.

Did the Candidate:	Pass	Fail
1.) Engage the ARFF vehicle firefighting systems?		
2.) Applied agent according to procedures?		
3.) Use all safety devices, such as, personal protective devices, etc?		
4.) Approach and apply agent from upwind position?		
5.) Complete the evolution within the allotted time?		
3.) Select and operate the appropriate turret(s)?		
4.) Manage agent supply with accurate/effective stream placement?		
5.) Modulate ARFF vehicle around the fire area, while applying agent in sweeping motion pushing fire away from aircraft fuselage?		
6.) Avoided driving through the foam blanket?		

Candidate: _____

Evaluator: _____

Date: _____

STATE OF INDIANA

JOB PERFORMANCE REQUIREMENTS

AIRPORT FIRE FIGHTER-AIRCRAFT CRASH AND RESCUE

Skill Test 8 NFPA 1003 (2005 Edition) Chapter 6, Fire Suppression

Objective: This duty involves the attack, control, and extinguishment of fires involving aircraft, aircraft cargo, airport facilities, and other equipment related to airport operations and property conservation. The primary purpose of this duty is to protect lives and property.

Task The candidate shall extinguish a three-dimensional aircraft fuel fire as a member of a team, given a team, PrPPE, an assignment, and ARFF vehicle hand line(s) using primary and secondary agents, 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.

Equipment An ARFF vehicle with dual agent capability, PrPPE and SCBA, and an approved controlled burn area with three-dimensional fire capability.

Attainment The candidate shall successfully complete the task upon extinguishment of the fire and fuel secured.

Did the Candidate:	Pass	Fail
1.) Use techniques applied with consideration to fire behavior of aircraft fuels, pooling of fuel fires, physical properties and characteristics of aircraft fuel?		
2.) Charge handline and adjust nozzle to produce an effective pattern?		
3.) Approach fire from the upwind position?		
4.) Direct agent at the base of the fire, using an aggressive sweeping motion?		
5.) Avoid splashing or churning fuel with agent stream, and avoid walking thru agent?		
6.) Monitor area for re-ignition?		
7.) Open and close the nozzle slowly to avoid water hammer?		

Recommendation for continued education?

Candidate: _____

Evaluator: _____

Date: _____

STATE OF INDIANA

JOB PERFORMANCE REQUIREMENTS

AIRPORT FIRE FIGHTER-AIRCRAFT CRASH AND RESCUE

Skill Test 9 NFPA 1003 (2005 Edition) Chapter 6, Fire Suppression

Objective: This duty involves the attack, control, and extinguishment of fires involving aircraft, aircraft cargo, airport facilities, and other equipment related to airport operations and property conservation. The primary purpose of this duty is to protect lives and property.

TASK The candidate shall attack a fire on the interior of an aircraft while operating as a member of a team, given PPE, an assignment, an ARFF vehicle hand line, and appropriate agent, 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, correct body posture is maintained, hazards are avoided or managed, and the fire is brought under control.

Equipment PrPPE, SCBA, ARFF vehicle hand line, an assignment, appropriate agent, communication devices, ladders, simulator for interior aircraft fires..

Attainment The candidate shall successfully complete the task upon extinguishment of the fire. Each student shall act as a member of a team, and each member shall operate the nozzle.

Did the Candidate:	Pass	Fail
1.) Deploy and place handline in an effective and efficient manner?		
2.) Make access to and gain entry into the aircraft?		
3.) Adjust nozzle flow and patterns?		
4.) Apply agent using direct, indirect, and combination methods?		
5.) Advance charged and uncharged hose lines as directed in the objective?		
6.) Locate and suppress all interior fires?		

Recommendation for continued education?

Candidate: _____

Evaluator: _____

Date: _____

STATE OF INDIANA

JOB PERFORMANCE REQUIREMENTS

AIRPORT FIRE FIGHTER-AIRCRAFT CRASH AND RESCUE

Skill Test 10 **NFPA 1003 (2005 Edition) Chapter 6, Fire Suppression**

Objective: This duty involves the attack, control, and extinguishment of fires involving aircraft, aircraft cargo, airport facilities, and other equipment related to airport operations and property conservation. The primary purpose of this duty is to protect lives and property.

TASK The candidate shall 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 PrPPE, an assignment, ARFF 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.

Equipment PPE, SCBA, ARFF type vehicle with dual agent hand line or turret, dry chemical or gaseous extinguishing agent, policies and procedures regarding extinguishment of aircraft engine/APU fires.

Attainment The candidate shall successfully complete the task upon successful extinguishment of the fire.

Did the Candidate:	Pass	Fail
1.) Engage the ARFF vehicle firefighting systems?		
2.) Gain access to engine or APU/EPU?		
3.) Use all safety devices, such as, personal protective devices, etc?		
4.) Approach and apply agent from upwind position?		
5.) Complete the evolution within the allotted time?		
6.) Select and operate the appropriate turret(s)?		
7.) Manage agent supply with accurate/effective stream placement?		
8.) Apply agent in a sweeping motion and avoid walking thru foam blanket?		
9.) Open and close nozzle slowly to avoid water hammer?		

Candidate: _____

Evaluator: _____

Date: _____

STATE OF INDIANA

JOB PERFORMANCE REQUIREMENTS

AIRPORT FIRE FIGHTER-AIRCRAFT CRASH AND RESCUE

Skill Test 11 **NFPA 1003 (2005 Edition) Chapter 6, Fire Suppression**

Objective: This duty involves the attack, control, and extinguishment of fires involving aircraft, aircraft cargo, airport facilities, and other equipment related to airport operations and property conservation. The primary purpose of this duty is to protect lives and property.

TASK The candidate shall attack a simulated wheel assembly fire, as a member of a team, given PrPPE, a team, an assignment, and ARFF vehicle hand line, and correct agent so that the fire is extinguished.

Equipment An ARFF vehicle, PrPPE and SCBA, simulated wheel assembly fire, a handline with appropriate agent.

Attainment The candidate shall successfully complete the task upon extinguishment of the fire.

Did the Candidate:	Pass	Fail
1.) Engage ARFF handline and extinguishing system?		
2.) Charge handline and adjust nozzle to produce an effective pattern?		
3.) Approach fire from the upwind position, rear or front of wheel assembly?		
4.) Direct agent at the base of the fire, using an aggressive sweeping motion?		
5.) Attack from a safe distance?		
6.) Monitor area for re-ignition ?		
7.) Be aware of fusible plug problems?		

Recommendation for continued education?

Candidate: _____

Evaluator: _____

Date: _____

STATE OF INDIANA

JOB PERFORMANCE REQUIREMENTS

AIRPORT FIRE FIGHTER-AIRCRAFT CRASH AND RESCUE

Skill Test 12 NFPA 1003 (2005 Edition) Chapter 6, Fire Suppression

Objective: This duty involves the attack, control, and extinguishment of fires involving aircraft, aircraft cargo, airport facilities, and other equipment related to airport operations and property conservation. The primary purpose of this duty is to protect lives and property.

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

Equipment PrPPE, SCBA, an assignment, appropriate tools and mechanical ventilation devices, and an aircraft or aircraft simulator.

Attainment The candidate shall successfully complete the task when ventilation is achieved. Each student shall act as a member of a team, and each member shall operate the nozzle.

Did the Candidate:	Pass	Fail
1.) Check and start vent fan prior to approaching aircraft?		
2.) Choose upwind aircraft access points?		
3.) Utilize forcible entry tools as necessary?		
4.) Open and close doors and hatches?		
5.) Position fan to achieve positive ventilation?		
6.) Open secondary opening to achieve cone vent?		
7.) Effectively and efficiently remove smoke and heat from the aircraft?		

Recommendation for continued education?

Candidate: _____

Evaluator: _____

Date: _____

STATE OF INDIANA

JOB PERFORMANCE REQUIREMENTS

AIRPORT FIRE FIGHTER-AIRCRAFT CRASH AND RESCUE

Skill Test 13 **NFPA 1003 (2005 Edition) Chapter 6, Fire Suppression**

Objective: This duty involves the attack, control, and extinguishment of fires involving aircraft, aircraft cargo, airport facilities, and other equipment related to airport operations and property conservation. The primary purpose of this duty is to protect lives and property.

TASK The candidate shall replenish extinguishing agents while operating as a member of a team, given an assignment, an ARFF 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 ARFF vehicle within the time established by the authority having jurisdiction (AHJ).

Equipment ARFF Vehicle, PPE, ARFF type vehicle with turret, policies and procedures regarding extinguishment of aircraft fuel spill fires.

Attainment The candidate shall successfully complete the task if the agent is replenished in the allotted time of the AHJ.

Did the Candidate:	Pass	Fail
1.) Use proper PPE, such as, helmet, eye protection, and gloves?		
2.) Use correct drafting techniques (if using mobile water supply source)?		
3.) Flush hydrant before attaching supply line?		
4.) Connect supply line to hydrant and vehicle intake?		
5.) Open water tank and foam tank vent covers?		
6.) Operate hydrant and valves to fill water tank? Close valves when full of water?		
7.) Open and close valves slowly to prevent water hammer?		
8.) Manually fill foam tank with proper amount and type of foam system used?		
9.) Close vent covers, disconnect lines, and return intake cap?		
10.) Ensure water has drained from hydrant before replacing hydrant cap?		

Candidate: _____

Evaluator: _____

Date: _____

STATE OF INDIANA

JOB PERFORMANCE REQUIREMENTS

AIRPORT FIRE FIGHTER-AIRCRAFT CRASH AND RESCUE

Skill Test 14 NFPA 1003 (2005 Edition) Chapter 6, Fire Suppression

Objective: This duty involves the attack, control, and extinguishment of fires involving aircraft, aircraft cargo, airport facilities, and other equipment related to airport operations and property conservation. The primary purpose of this duty is to protect lives and property.

Task The candidate shall overhaul an accident scene, given PrPPE, 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.

Equipment A simulated accident scene, PrPPE, SCBA, hand lines, property conservation equipment, and equipment necessary to preserve evidence.

Attainment The candidate shall successfully complete the task upon full extinguishment of all fires and all evidence being marked and/or secured.

Did the Candidate:	Pass	Fail
1.) Ensure aircraft is cool, check for extension?		
2.) Locate, identify pertinent components?		
3.) Apply salvage covers to protect evidence?		
4.) Anchor cover to prevent movement from high-winds?		
5.) Locate flight data recorders?		
6.) Mark evidence with flags or stakes?		
7.) Secure area and ensure overhaul does not disturb evidence?		

Recommendation for continued education?

Candidate: _____

Evaluator: _____

Date: _____

STATE OF INDIANA

JOB PERFORMANCE REQUIREMENTS

AIRPORT FIRE FIGHTER-AIRCRAFT CRASH AND RESCUE

Skill Test 15 **NFPA 1003 (2005 Edition) Chapter 6, Rescue**

Objective: This duty involves gaining access to an aircraft and assisting in the evacuation process, performing disentanglement, and initial triage.

TASK The candidate shall gain access into and out of an aircraft through normal entry points and emergency hatches and assist in the evacuation process while operating as a member of a team, given PrPPE and an assignment, so that passenger evacuation and rescue can be accomplished.

Equipment PrPPE, SCBA (if needed), power saws, cutting tools, hydraulic devices, pneumatic devices, pulling devices, various ladders or other high-reach devices, an aircraft, and rescue mannequin(s).

Attainment The candidate shall successfully complete the task upon successful disentanglement, evacuation, and/or rescue of the simulated victim(s).

Did the Candidate:	Pass	Fail
1.) Identify access points and locations?		
2.) Make access to and gain entry into the aircraft?		
3.) Use proper PPE?		
4.) Position ladder in proper location, and at correct angle?		
5.) Climb ladder smoothly, operate locking mechanisms and open or remove the door hatch?		
6.) Evacuate all passengers?		

Recommendation for continued education?

Candidate: _____

Evaluator: _____

Date: _____

STATE OF INDIANA

JOB PERFORMANCE REQUIREMENTS

AIRPORT FIRE FIGHTER-AIRCRAFT CRASH AND RESCUE

Skill Test 16 **NFPA 1003 (2005 Edition) Chapter 6, Rescue**

Objective: This duty involves gaining access to an aircraft and assisting in the evacuation process, performing disentanglement, and initial triage.

TASK The candidate shall locate and disentangle an entrapped victim from an aircraft as a member of a team given PrPPE, a team and an assignment, and rescue tools, so that the victim is freed from entrapment without undue further injury and hazards are managed.

Equipment PrPPE, rescue tools, an aircraft, ladder, rescue mannequin(s).

Attainment The candidate shall successfully complete the task upon successful disentanglement and removal of simulated victim(s) from aircraft.

Did the Candidate:	Pass	Fail
1.) Enter aircraft and conduct primary search?		
2.) Locate and remove victim from entrapment without additional injuries?		
3.) Use all safety devices, such as, personal protective devices, etc?		
4.) Complete the evolution within the allotted time?		
5.) Demonstrate two rescuer carry ?		
3.) Demonstrate two rescuer drag?		
4.) Remove victim from aircraft via assigned exit and down a ladder?		
5.) Successfully remove victim from hazard and deliver to EMS personnel?		
6.) Report patient condition and mechanism of injury to EMS?		

Candidate: _____

Evaluator: _____

Date: _____

STATE OF INDIANA

JOB PERFORMANCE REQUIREMENTS

AIRPORT FIRE FIGHTER-AIRCRAFT CRASH AND RESCUE

Skill Test 17 **NFPA 1003 (2005 Edition) Chapter 6, Rescue**

Objective: This duty involves gaining access to an aircraft and assisting in the evacuation process, performing disentanglement, and initial triage.

TASK The candidate shall implement initial triage of the victims of a simulated aircraft accident, given PrPPE, an assignment, and the triage protocol of the AHJ, so that each victim is evaluated and correctly categorized according to the protocol.

Equipment A simulated aircraft accident, PrPPE, triage protocol, simulated victims.

Attainment The candidate shall successfully complete the task upon all simulated victims being properly identified by triage category in accordance with the triage protocols of the AHJ.

Did the Candidate:	Pass	Fail
1.) Use PPE?		
2.) Perform a scene size-up, ensuring scene is safe?		
3.) Set up triage areas for each category?		
4.) Rapidly identify each patient's condition?		
5.) Tag each patient based on protocol?		
6.) Direct movement of patients to triage category area?		
7.) Report findings to EMS?		

Recommendation for continued education.

Candidate: _____

Evaluator: _____

Date: _____

STATE OF INDIANA

JOB PERFORMANCE REQUIREMENTS

AIRPORT FIRE FIGHTER-AIRCRAFT CRASH AND RESCUE

(Scenarios For Use on Skills Tests 1-4)

SCENARIO #1: At approximately 3:00 pm this date, a Beech 1900 departing Indianapolis International Airport Runway 23R, loses power and crash lands at the intersections of Runway 23R and Taxiway R. The aircraft has 4,000 lbs of fuel and 17 people on board. The winds are blowing from the west at 10 mph. The ambient conditions are a temperature of 71 degrees, humidity of 20%, and clear skies. The aircraft is not on fire. Fuel is leaking profusely from the left wing area. Some people are still trapped in the aircraft.

SCENARIO #2: At approximately 7:45 am this date, a B-737 landing Runway 32 experiences a blown tire on the left main gear assembly and veers off the runway at the intersection of taxiway M-1. The aircraft comes to rest in a grass area and immediately initiates evacuation procedures. The aircraft has 7,000 lbs of Jet-A fuel and 121 people on board. The winds are from the north at 12 mph. The ambient temperature is 68 degrees and it is raining lightly. The left main gear assembly has considerable smoke emitting from it. There are no known leaks.

SCENARIO#3: At approximately 930 pm this date, a B-727 cargo plane lands and fails to stop at the end of runway 23L. The aircraft goes through the light stands at the end of the runway rupturing the wing fuel tanks and igniting the fuel. Upon arrival, the aircraft has a large fire on the right hand side of the plane. The pilot and co-pilot are still in the aircraft. The aircraft has 9,500 lbs of Jet A fuel and two people on board. The cargo is unknown. The ambient conditions are a temperature of 29 degrees, humidity of 33% and light freezing rain.