



U.S. Department  
of Transportation

Federal Aviation  
Administration

# Advisory Circular

**Subject:** AIRPORT FIRE AND RESCUE  
EQUIPMENT, TOOLS AND CLOTHING

**Date:** DRAFT  
**Initiated by:** AAS-300

**AC No.:** 150/5210-14B  
**Change:**

**1. PURPOSE.** This advisory circular (AC) contains information, references and guidelines concerning the minimum requirements for the selection, performance, and equipage of Federal Aviation Administration (FAA) aircraft rescue and firefighting personal protective equipment (PPE), self contained breathing apparatus (SCBA), and specialized aircraft rescue, extraction, and recovery tools used by airport rescue fire fighters. This AC is designed to assist airport management in the development of local procurement specifications for acceptable, cost-effective equipage of airport fire departments. Equipment meeting this advisory circular will qualify as meeting the intent of Title 14 Code of Federal Regulations (CFR) Part 139, *Certification of Airports*, and meet the requirement for airport fire fighting equipment.

**2. CANCELLATION.** AC 150/5210-14A, *Airport Fire and Rescue Personnel Protective Clothing*, dated July 13, 1995, is canceled.

**3. APPLICATION.** The FAA recommends the use of National Fire Protection Association Standards (NFPA) as outlined in chapter 1 and 2. The standards referenced herein are recommended by the FAA for applications at all airports regardless of the airport index. The NFPA standards that address PPE and SCBA should be considered as the minimum acceptable level when purchased under federally funded projects and are an acceptable means for compliance with 14 CFR Part 139, *Certification and Operations: Land Airports Serving Certain Air Carriers*, as it pertains to the PPE and SCBA requirements for airport rescue and firefighting personnel.

**4. PRINCIPAL CHANGES:**

- a. The NFPA Standards referenced in this advisory circular are adopted by reference, exception, or amendment.
- b. Self Contained Breathing Apparatus have been added.
- c. Emergency Equipment and Rescue Tools and have been added.

**5. METRIC UNITS.** To promote an orderly transition to metric units, the AC contains both English and metric conversions. The metric conversions may not be exact metric equivalents and, until there is an official changeover to the metric system, the English dimensions will govern.

**6. COPIES OF THE AC.** The Office of Airport Safety and Standards makes ACs available to the public through the internet. These ACs may be found through the FAA home page ([www.faa.gov](http://www.faa.gov)). A printed copy of this and other ACs can be ordered from the U.S. Department of Transportation, Subsequent Business Office, Ardmore East Business Center, 3341 Q 75<sup>th</sup> Avenue, Landover, MD 20785.

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## CHAPTER ONE: INTRODUCTION

**1.1. Overview.** This advisory circular (AC) provides the basic guidelines to identify and establish requirements and operational capabilities within an aircraft rescue and fire fighting (ARFF) department for equipping fire apparatus and personnel with proper equipment and clothing. To properly use this document, first refer to the appropriate National Fire Protection Association Standards (NFPA) standard that corresponds to your subject item. Then refer to this advisory to identify any *additions, exceptions or amendments* that have been imposed on the NFPA standard. Refer to chapter three in this document for the definition of *additions, exceptions and amendments*.

**1.2. Adoption of NFPA Standards.** The Federal Aviation Administration (FAA) recommends the use of NFPA standards as the “baseline” for performance expectations, specification development, and operational use.

**1.3.** The following NFPA standards, recommended practices, and guides should be consulted to obtain minimum performance requirements:

- a. NFPA 402, 2002 Edition, *Guide for Aircraft Rescue and Fire Fighting Operations*;
- b. NFPA 414, 2007 Edition, *Standard for Aircraft Rescue and Fire-Fighting Vehicles*;
- c. NFPA 1404 , 2006 Edition, *Standard for Fire Service Respiratory Protection Training*;
- d. NFPA 1500, 2007 Edition, *Standard on Fire Department Occupational Safety and Health Program*;
- e. NFPA 1581, 2005 Edition, *Standard on Fire Department Infection Control Program*;
- f. NFPA 1851, 2008 Edition, *Standard on Selection, Care, and Maintenance of Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting*;
- g. NFPA 1852, 2002 Edition, *Standard on Selection, Care and Maintenance of Open-Circuit Self Contained Breathing Apparatus (SCBA)*;
- h. NFPA 1901, 2003 Edition, *Standard for Automotive Fire Apparatus*;
- i. NFPA 1936, 2005 Edition, *Powered Rescue Tools*;
- j. NFPA 1971, 2007 Edition, *Standard on Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting*;
- k. NFPA 1975, 2004 Edition, *Station/Work Uniforms*;
- l. NFPA 1981, 2007 Edition, *Open Circuit SCBA for Emergency Services*;
- m. NFPA 1982, 2007 Edition, *Personal Alert Safety Systems (PASS)*;
- n. NFPA 1983, 2006 Edition, *Life Safety Rope and Equipment for Emergency Services*;

- o.** NFPA 1989, 2003 Edition, *Standard on Breathing Air Quality for Fire and Emergency Services Respiratory Protection*;
- p.** NFPA 1999, 2003 Edition, *Standard on Protective Clothing for Emergency Medical Operations*;
- q.** AC 150-5220-10D, *Guide Specification for Rescue and Fire Fighting Vehicles*;
- r.** and this advisory circular for the development of specifications for vehicle and personal accessories and equipment.

## CHAPTER TWO: ADMINISTRATION

**2.1. How to Order NFPA Standards.** NFPA Standards can be ordered from: 1 Batterymarch Park, P.O. Box 9101, Quincy, Massachusetts 02269-9101 or through the internet at [www.NFPA.org](http://www.NFPA.org).

## CHAPTER THREE: DEFINITIONS

**3.1. Use of NFPA Standards.** To properly use this document, first refer to the NFPA Standard for the base requirement then refer to this advisory for any additions, exceptions or amendments as defined below:

- a. Additions.** A new item has been added to the standard in the reference document.
- b. Exceptions.** A restriction has been imposed on the standard in the reference document.
- c. Amendments.** Subject matter has been rewritten to modify part or all of the original text of the reference document.

## CHAPTER FOUR: PERSONAL PROTECTIVE EQUIPMENT

**4.1. Personal Protective Equipment (PPE).** Refer to the following NFPA Standards:

- a.** NFPA 1851, 2008 Edition, *Standard on Selection, Care, and Maintenance of Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting*;
- b.** NFPA 1971, 2007 Edition, *Standard on Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting*;
- c.** NFPA 1975, 2004 Edition, *Station/Work Uniforms*;
- d.** NFPA 1999, 2003 Edition, *Standard on Protective Clothing for Emergency Medical Operations*.

## CHAPTER FIVE: SELF CONTAINED BREATHING APPARATUS

**5.1. Self Contained Breathing Apparatus (SCBA).** Refer to the following NFPA Standards:

- a. NFPA 1404 , 2006 Edition, *Standard for Fire Service Respiratory Protection Training*;
- b. NFPA 1852, 2002 Edition, *Standard on Selection, Care and Maintenance of Open-Circuit Self Contained Breathing Apparatus (SCBA)*;
- c. NFPA 1981, 2007 Edition, *Open Circuit SCBA for Emergency Services*;
- d. NFPA 1989, 2003 Edition, *Standard on Breathing Air Quality for Fire and Emergency Services Respiratory Protection*.

## CHAPTER SIX: EMERGENCY AND RESCUE TOOLS AND EQUIPMENT

**6.1. Emergency and Rescue Tools.** Refer to the following NFPA Standards and the list below:

- a. NFPA 1936, 2005 Edition, *Powered Rescue Tools*
- b. NFPA 1983, 2006 Edition, *Life Safety Rope and Equipment for Emergency Services*

**Table 1. Rescue, Extraction and Recovery Tools**

Tools	AIRPORT ARFF INDEX OR CATEGORY		
	A	B-C	D-E
Axe, rescue, large, non-wedge type	1	2	2
Axe, rescue, small, non-wedge type	2	3	3
Blanket, fire resistant with storage pouch	1	2	2
Chock, aluminum, 8 inch (20.3 cm)	2	2	2
Cutter, bolt, 24 inch (61 cm)	1	1	1
Cutter, cable, aircraft	1	1	1
Prybar, 60 inch (152.4 cm)	1	1	1
Hammer, sledge, 8 pound (3.6 kg)	1	1	1
Hook, assault grapnel, 3 hooks, 2 pound (0.9 kg)	1	1	1
Ladder, extension or "A-Frame", minimum 20-foot (6.1 m) overall length	1	1	1

Tools	AIRPORT ARFF INDEX OR CATEGORY		
	A	B-C	D-E
Lantern, rechargeable-installed in cab (12 or 24 volt, as applicable)	2	4	6
Medical kit, first aid/first responder trauma kit, 76 component minimum w/ nylon tote bag	1	1	1
Pike pole, 8 foot (3.6 m) with fiberglass handle	1	1	1
Rescue kit, hydraulic, 10 ton (manual type without auxiliary power source)	1	1	1
Rescue kit, pneumatic air hammer standard duty type), complete with spare air cylinder	1	1	1
Rope line, 50 ft. (15 m) length, 5/8 inch (16 mm)	1		
Rope line, 100 ft (30 m) length, 5/8 inch (16 mm)		1	1
Saw, powered rescue, 14 inch (35.6 cm), complete with two (2) spare blades	1	1	1
Skin penetrator (piercing applicator), for water or foam application, manual type OR	1	1	1
Skin penetrator, for water, foam, or dry chemical application, pneumatic type, including carrying case, adaptor, and compressed air cylinder	1	1	1
Wrench, adjustable, 8 inch (20.3 cm)	1	1	1

**Table 2. Tools**

Tools	AIRPORT ARFF INDEX OR CATEGORY		
	A	B-C	D-E
Chocks, 4 inch (10 cm) high	2	-	-
Chock, aluminum, 8 inch (20.3 cm) high	-	2	2
Chisel, cold, 1 inch (2.5 cm)	1	1	1
Crowbar, 36 inch (95 cm)	1	1	1
Hacksaw, heavy duty, 12 inch (30.5 cm) with pistol grip and six (6) assorted blades	1	1	1

Tools	AIRPORT ARFF INDEX OR CATEGORY		
	A	B-C	D-E
Hammer, 1-1/4 pound (0.6 kg)	1	1	1
Hammer, 4 pound (1.8 kg)	1	1	1
Harness cutting tool	1	1	1
Knife, rescue	2	3	4
Pliers, side cutting, 7 inch (17.8 cm)	1	1	1
Pliers, side cutting, 10 inch (25 cm)	1	1	1
Pliers, self adjusting with locking capability 10 inch (24.5 cm)	1	1	1
Plug, fuel line (hardwood)	3	3	3
Plug, fuel line (neoprene)	3	3	3
Screwdriver set- three (3) Phillips and three (3) straight blade	1	1	1
Shears, sheet metal, straight cut	1	1	1
Wrecking bar (crowbar), 36 inch (91.4 cm)	1	1	1
Wrench, adjustable, 8 inch (20.3 cm)	1	1	1

**Table 3. Self Contained Breathing Apparatus**

SCBA	AIRPORT ARFF INDEX OR CATEGORY		
	A	B-C	D-E
Breathing apparatus with cylinder	2	4	8
Air cylinders, spare	1	1	1

**Table 4. Clothing**

<b>Clothing</b>	<b>AIRPORT ARFF INDEX OR CATEGORY</b>		
	<b>A</b>	<b>B-C</b>	<b>D-E</b>
Gloves, flame resistant (pair)	1	1	1