U.S. Department
of Transportation

Federal Aviation Administration

Advisory Circular

Subject: PROGRAMS FOR TRAINING OF AIRCRAFT RESCUE AND FIREFIGHTING PERSONNEL

Date: 3/9/94 **AC No:** 150/5210-17
Initiated by: AAS-100 **Change:**

1. PURPOSE. This advisory circular (AC) provides information on courses and reference materials for training of Aircraft Rescue and Firefighting (ARFF) personnel.

2. CANCELLATION. This AC cancels the following publications:

a. AC 139.49-1, Programs for Training of Fire Fighting and Rescue Personnel, dated November 12, 1974.

b. AC 150/5200-15D, Announcement of Availability, International Fire Service Training Association's Manual 206, Aircraft Fire Protection and Rescue Procedures (Second Edition, 1978), dated January 21, 1988.

c. AC 150/5200-21A, Announcing the Availability of U.S. Air Force Technical Order (T.0. 00-105E-9) Aircraft Emergency Rescue Information, dated February 24, 1981.

d. AC 150/5200-27B, Announcement of Availability, The National Fire Protection Association's Standard for Airport Fire Fighter Professional Qualifications (NFPA 1003-1987), dated September 1, 1987.

e. AC 150/5210-16, Announcement of Availability, Standardized Basic Aircraft Rescue and Firefighting Curriculum (A Basic ARFF Training Course), dated February 21, 1989.

3. APPLICATION. The material contained in this AC is applicable for use on all civil airports.

4. RELATED READING MATERIAL.

a. 14 CFR part 139 (part 139)- Certification and Operations: Land Airports Serving Certain Air Carriers.

b. AC 150/5200-12A, Fire Department Responsibility in Protecting Evidence at the Scene of an Aircraft Accident.

c. AC 150/5200-18B, Airport Safety Self-Inspection

d. AC 150/5200-31, Airport Emergency Plan.

e. AC 150/5210-6C, Aircraft Fire and Rescue Facilities and Extinguishing Agents.

f. AC 150/5210-7B, Aircraft Fire and Rescue Communications.

g. AC 150/5210-13A, Water Rescue Plans, Facilities, and Equipment.

h. AC 150/5220-4A, Water Supply Systems for Aircraft Fire and Rescue Protection.

i. AC 150/5210-14, Airport Fire and Rescue Personnel Protective Clothing.

j. AC 150/5220-17, Design Standards for an Aircraft Rescue and Firefighting Training Facility.

k. AC 150/5230-4, Aircraft Fuel Storage, Handling, and Dispensing on Airports.
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l. FAA Airport Driver Training Familiarization Manual.

m. National Fire Protection Association's Standard for Airport Fire Fighter Professional Qualifications (NFPA 1003-1987).

n. U. S. Air Force Technical Order (T.O.) 00-105E-9, Aircraft Rescue Information (Fire Protection). The technical order describes procedures for fire service personnel responding to various types of emergencies involving military or civil aircraft. It also provides general information on aircraft firefighting and rescue as well as detailed information relating to military aircraft and civilian air carrier aircraft used by the military. Nonmilitary organizations having airport firefighting and rescue responsibilities at airports which serve military aircraft under routine and/or emergency conditions may obtain a copy of this technical order by sending a request to:

HQ AFCESA/DF
139 Barnes Drive
Suite 1
Tyndall Air Force Base, FL 32403-5319

o. International Fire Service Training Association (IFSTA) Manual 206, Aircraft Fire Protection and Rescue Procedures (Third Edition, 1992). The manual was developed to provide information for both airport and structural fire department officers to effectively accomplish the various tasks involved in aircraft firefighting and rescue. It is designed for all types of fire protection organizations and includes the use of both conventional and specialized aircraft firefighting apparatus. Copies may be purchased from IFSTA at the address in 9.c. below.

5. REQUIREMENTS FOR CERTIFICATED AIRPORTS. Part 139.319(j) requires that each holder of an airport operating certificate shall ensure that firefighting personnel are properly trained to perform their duties. The recommendations in this AC comprise a method for meeting this provision. The minimum requirements for a training program are listed below. These recommendations are *not* intended as proficiency standards for airport firefighters, but are provided to assist the airport sponsor in establishing an adequate training program.

a. Training Curriculum. The training curriculum shall include initial and recurrent instruction in at least the areas listed in (1) through (12) below. Initial training is defined as that training provided to a new or relief employee to enable him/her to identify and interpret advanced theories, facts, concepts, principles, requirements, procedures, equipment and components of ARFF as applied to the aircraft serving the airport, and to demonstrate all required tasks safely and accurately and in accordance with established procedures while functioning independently. Recurrent training is defined as that training provided to an employee *as often as necessary* to enable him/her to maintain a satisfactory level of proficiency. Appropriate frequencies for recurrent training will vary widely from airport to airport and from one employee to another. Training in several areas will require coordination with airlines and other organizations on the local airport.

(1) Airport familiarization. The program should train personnel such that they are able to:

(a) describe the runway and taxiway identification system;

(b) describe the airfield lighting color code/marking system;

(c) describe the airfield pavement marking and signing system;

(d) identify the various on-field aircraft navigation aids;

(e) cite airport rules and regulations concerning vehicle movement and access;

(f) cite rules and regulations governing airport security;

(g) locate a given point on a grid map or other standard map used at the airport;

(h) identify terrain features using map symbols;

(i) identify installations and features in the critical response area which present a hazard to vehicle response;

(j) identify installations and terrain features in the critical response area which limit vehicle response capability;

(k) identify the probable direction of travel of fuel in a simulated leak in the fuel distribution system;

(l) demonstrate the operation of fuel system valves and pumps to control the flow of fuel within the system; and

(m) identify hazardous materials which are frequently stored or used on the airport property.

(2) Aircraft familiarization. For air carrier operations, the program should train personnel such that they are able to:

(a) identify the types of aircraft operating at the airport;

(b) identify the categories of aircraft propulsion systems;

(c) locate normal entry doors, emergency exit openings and evacuation slides for a given aircraft;

(d) demonstrate the opening of all doors and compartments for a given aircraft;

(e) identify aircrew and passenger capacities and locations for a given aircraft;

(f) indicate the type of fuel used, location of fuel tanks and capacity of fuel tanks for a given aircraft;

(g) identify and locate components of the fuel, oxygen, hydraulic, electrical, fire protection, anti-icing, APU, brake, wheel, and egress systems for a given aircraft; and

(h) identify and locate the flight data recorder and cockpit voice recorder.

(3) Rescue and firefighting personnel safety. The program should train personnel such that they are able to:

(a) identify the hazards associated with aircraft firefighting/rescue;

(b) identify the hazards to personnel associated with aircraft and aircraft systems;

(c) identify the potential stress effects on emergency services personnel involved in a mass casualty situation;

(d) identify the purpose and limitations of approved protective clothing used locally;

(e) demonstrate donning approved protective clothing within 30 seconds;

(f) identify the purpose of self-contained breathing apparatus (SCBA);

(g) identify the components and operation of SCBA;

(h) identify the limitations of SCBA;

(i) demonstrate the donning and use of an approved SCBA;

(j) demonstrate changing the air supply cylinder of a team member with an exhausted air supply cylinder;

(k) while wearing an SCBA, demonstrate the actions to be taken when the following emergency situations occur: low air alarm activates, air supply is exhausted, regulator malfunctions, facepiece is damaged, low pressure hose is damaged, high pressure hose is damaged;

(l) while wearing an SCBA, demonstrate the actions to be taken to assist a team member experiencing the following emergency situations: low air alarm activates, air supply is exhausted, regulator malfunctions, facepiece is damaged, low pressure hose is damaged, high pressure hose is damaged; and

(m) Identify techniques for protection from communicable disease hazards.

(4) Emergency communications systems on the airport, including fire alarms. The program should train personnel such that they are able to:

(a) identify the procedures for receiving an emergency alarm;

(b) identify radio frequencies and channels used by his/her organization and mutual aid organizations;

(c) identify procedures concerning multiple alarms and mutual aid;

(d) demonstrate knowledge of the phonetic alphabet;

(e) demonstrate the use of all communication equipment utilized by his/her organization;

(f) cite the procedure for obtaining clearance from the control tower or other responsible authority for apparatus movement;

(g) give an initial status report for a simulated aircraft accident;

(h) demonstrate the use of standard aircraft fire rescue hand signals; and

(i) identify standard hand signals to be used to communicate with aircrew personnel.

(5) Use of fire hoses, nozzles, turrets, and other appliances. The program should train personnel such that they are able to:

(a) identify the purpose of each tool and item of equipment used locally;

(b) identify the location of each tool and item of equipment used locally;

(c) identify the hazards associated with each tool and item of equipment used locally;

(d) identify the proper procedures for use and maintenance of each tool and item of equipment used locally;

(e) identify the purpose of each hose, nozzle and adapter;

(f) identify the location of each hose, nozzle and adapter used locally;

(g) identify the size and amount of each hose carried on each local vehicle;

(h) identify the proper procedures for use and maintenance of each hose, nozzle and adapter used locally;

(i) Identify the proper procedure to be used when advancing hose for fire attack;

(j) Identify the proper procedure to be used when laying hose to establish a resupply of water

(k) identify the primary purpose, agent capacity, water capacity, type of agent carried, agent discharge rate/range, personnel requirements, and response limitations for each vehicle used locally;

(l) demonstrate the proper methods of operation of all handlines and vehicle-mounted discharge devices;

(m) identify the procedures for maintenance of each vehicle used locally; and

(n) identify the procedures for resupply, using a hydrant, structural vehicles, tank trucks and other vehicles, for each vehicle used locally.

(6) Applications of extinguishing agents. The program should train personnel such that they are able to:

(a) identify the extinguishing properties of each agent, including advantages and disadvantages;

(b) identify which agents used by the local organization are compatible and which are not;

(c) identify the locations and quantities of each agent which is kept in inventory for vehicle resupply;

(d) identify the quantity of each type of agent which is carried on each vehicle used at the local airport;

(e) identify the preferred agent to be used in suppression and extinguishment for various fire scenarios;

(f) demonstrate agent application techniques;

(g) identify each type of portable fire extinguisher by classification and rating;

(h) identify the limitations and operating characteristics of each type of portable fire extinguisher;

(i) identify the location of each portable fire extinguisher provided on local vehicles; and

(j) identify the general location of portable fire extinguishers provided on aircraft.

(7) Emergency aircraft evacuation assistance. For air carrier operations, the program should train personnel such that they are able to:

(a) identify the priorities of openings to be used to gain entry to aircraft;

(b) identify which opening should be used to gain entry for a given aircraft and situation;

(c) select the necessary tools and equipment to gain entry for a given aircraft and situation;

(d) demonstrate, while wearing full protective clothing, from inside and outside the aircraft, opening normal entry doors and emergency exit points for a given aircraft;

(e) identify potential locations for cut-in entry, using reference materials, aircraft markings, or general guidelines for a given aircraft;

(f) identify the hazards associated with cut-in entry;

(g) identify procedures followed during an emergency situation by crews of air carriers operating at the local airport; and

(h) identify the procedures to be used to protect evacuation points.

(8) Firefighting operations. The program should train personnel such that they are able to:

(a) describe the standard operating procedure plans for various emergency scenarios;

(b) select a strategy and tactics for incident control and termination;

(c) identify the procedures for securing and maintaining a rescue path;

(d) identify the proper procedure to use when protecting an aircraft fuselage from fire exposure;

(e) identify the procedures to be used when providing protective streams for personnel;

(f) identify procedures for controlling runoff from fire control operations and fuel spills; and

(g) identify the procedures to be used to stabilize aircraft wreckage.

(9) Adapting and using structural rescue and firefighting equipment for aircraft rescue and firefighting. For any structural rescue and firefighting equipment available and intended for use in aircraft firefighting, the program should train personnel such that they are able to identify the procedures used to adapt the equipment for aircraft rescue and firefighting.

(10) Aircraft cargo hazards. The program should train personnel such that they are able to:

(a) identify the hazards indicated by each Department of Transportation (DOT) and International Civil Aviation Organization (ICAO) label;

(b) identify the limitation of the DOT and ICAO classifications and labeling system;

(c) use the *DOT Emergency Response Guidebook* to obtain information on hazardous materials for a given situation;

(d) identify the procedures for using CHEMTREC and other resources to obtain information concerning a hazardous material; and

(e) using the information obtained from the *DOT Emergency Response Guidebook* and CHEMTREC, identify the appropriate response, including risk assessment and rescue or evacuation

requirements, to a given situation involving hazardous materials.

(11) Familiarization with firefighters' duties under the airport emergency plan. The program should train personnel such that they are able to:

(a) identify airport prefire plans;

(b) identify the various types of aircraft-related emergencies;

(c) identify the incident command system to be utilized in an emergency;

(d) identify the procedures to be used to size-up a given aircraft accident; and

(e) identify the other duties of his/her organization under the airport emergency plan.

(12) Additional training. If the airport emergency plan calls for firefighters to respond to special situations, such as water or treetop rescue, training specific to such situations should be provided. If a Surface Movement Guidance and Control System (SMGCS) plan is in place at the airport, training specific to operations in low visibility should be provided.

b. Live-fire drills. All rescue and firefighting personnel shall participate in at least one live-fire drill every 12 months. This drill must include a pit fire with an aircraft mock-up or similar device, using enough fuel to provide a fire intensity which simulates realistic firefighting conditions. The conditions would simulate the type of fire which could be encountered on an air carrier aircraft at the airport. AC 150/5220-17, provides more detailed guidance on recommended standards for the burning area structure. It is intended that the drill provide an opportunity for the firefighting team to become familiar with the use of all fire extinguishment equipment they will use in the event of an accident. If possible, a simulated rescue of aircraft occupants will help in creating a realistic simulation. During the drill, each firefighter shall demonstrate:

(1) the control and extinguishment of a simulated aircraft fire using handlines and/or turrets, given an airport-type foam firefighting vehicle;

(2) the control and extinguishment of a simulated aircraft fire using handlines and/or turrets, given each type, other than foam-type, firefighting vehicle; and

(3) using fire streams to protect firefighters and aircraft occupants, given an airport firefighting vehicle.

c. First Aid. At least one person trained and current in basic emergency medical care shall be on duty during air carrier operations. In this context, "on duty" does not mean that the emergency medical person be one of the regular ARFF personnel, but that there must be some assured means of having the individual available with a reasonable response time. This training shall include 40 hours covering at least the following areas:

(1) bleeding;

(2) cardiopulmonary resuscitation;

(3) shock;

(4) primary patient survey;

(5) injuries to the skull, spine, chest, and extremities;

(6) internal injuries;

(7) moving patients;

(8) burns; and

(9) triage.

6. FIREFIGHTER CERTIFICATION.

a. National Fire Protection Association (NFPA) Certification. While NFPA certification is not required by part 139, a worthwhile goal of a training program would be to enable personnel to meet proficiency criteria as detailed in NFPA 1003, Standard for Professional Qualifications for Airport Fire Fighters. The standard was developed by the NFPA Technical Committee on Fire Fighter Professional Qualifications. It specifies in terms of performance objectives the minimum requirements of professional competence required for service as an airport firefighter. It does not restrict any jurisdiction from exceeding the minimum

requirements set forth in the standard. A training program which leads to the fulfillment of the professional qualifications for an airport firefighter identified in NFPA 1003-1987 is a means acceptable to the Administrator of providing firefighting and rescue personnel with the training considered necessary to perform their duties at airports. A training program encompassing at least the requirements in 5. above which leads to the fulfillment of the criteria for the applicable state level airport firefighter certification is also an acceptable means of meeting this requirement. Copies of NFPA 1003-1987 may be ordered from NFPA at the address in 9.c. below.

b. American Association of Airport Executives (AAAE) Certification. The AAAE Aircraft Rescue and Fire Fighting Certification Program was developed to recognize ARFF personnel who have demonstrated more than normal devotion to their profession by exceeding regular job requirements and to standardize ARFF training. This is a voluntary program administered by AAAE and supported by FAA. The levels for the ARFF Certification Program are:

- The Basic Level - designed to recognize personnel who have recently entered the ARFF profession.

- The Senior Level - designed to recognize more experienced ARFF personnel.

- The Master Level - designed to recognize personnel involved in ARFF on a management level.

For further information on the AAAE ARFF Certification Program, contact AAAE directly at the address in 9.b. below.

7. MUTUAL AID AGREEMENTS. Where mutual aid agreements exist with U.S. Air Force personnel and/or municipal fire services surrounding the airport, familiarization training between all parties should be provided. In connection with such mutual aid agreements, the U.S. Air Force encourages and extends the use of Air Force base training facilities to surrounding municipal fire organizations, as explained in Air Force Regulation 92-1, Fire Protection Program.

8. NONCERTIFICATED AND LIMITED CERTIFICATED AIRPORTS. There are no regulatory requirements for ARFF services at noncertificated airports, and requirements at limited certificated airports vary. However, at those airports that have ARFF coverage, or for fire departments that have an airport responsibility, the information found in the available programs is useful.

9. PROGRAMS AVAILABLE.

a. FAA Standardized Basic Aircraft Rescue and Firefighting Curriculum. This course has been designed to be appropriate for inclusion in initial training, i.e., contributing knowledge of basic aircraft rescue and firefighting principles. Successful completion of this course provides the student with the minimum knowledge and improves skills necessary for handling an aircraft emergency effectively. The successful graduate should have the minimum level of professional competency necessary to qualify as an airport firefighter within part 139: Certification and Operation: Land Airports Serving Certain Air Carriers. In addition, successful completion should put graduates well on their way to meeting the criteria in National Fire Protection Association 1003-1987, Standard for Airport Fire Fighter Professional Qualifications.

(1) Format. The course materials are arranged in a modular format. This offers instructors flexibility to: schedule, select and emphasize content: tailor the materials to meet the students' levels of ability and dexterity; and reflect any specific local needs.

(2) Course Materials. As a complete package, the curriculum materials consist of the following:

Instructor's Guide;
Course Transparencies (Master copies on paper);
Final Test and Instructor's Key;
Color Slides (35mm);
Student Manual; and
Aircraft Diagrams - Student's Copy.

The curriculum is designed for a minimum of 30 contact hours. Depending on the individual student's background and experience in firefighting, successful completion of all of the modules may

require significantly more actual classroom time and/or hands-on training.

(3) Ordering Information. To purchase the curriculum, write:

National Audiovisual Center (NAC)
Attn: Customer Services
8700 Edgeworth Drive
Capitol Heights, MD 20743-3701
or call: (301) 763-1896

Use the following information when ordering your curriculum:

Instructor Package
Title No. A17555 $245.00
This package price includes: one 182-page Instructor Guide and one 164-page Student Manual reproduction master, unbound and shrink-wrapped; 43 overhead transparency masters, unbound and shrink-wrapped; one 12-page set of aircraft diagrams, unbound and shrink wrapped; one 12-page exam reproduction master; one 12-page exam key; and 344 color slides.

Student Materials Package
Title No. A17556 $65.00
This package price includes ten 152-page Student Manuals; and ten 12-page sets of Aircraft Diagrams.

b. FAA Cosponsored Training Programs. The following schools are endorsed and co-sponsored by the FAA. This list is not represented to be complete, nor does it indicate the only sources for such programs and/or reference materials. These programs have been reviewed and are endorsed by the FAA. AAAE may be contacted at:

American Association of Airport Executives
4212 King Street
Alexandria, VA 22302
Telephone: (703) 824-0504
Fax: (703) 820-1395

(1) AAAE/FAA Basic Aircraft Rescue and Fire Fighting School. This school will fulfill the initial and recurrent training requirements of part 139 for ARFF personnel on FAA certificated airports. The school includes classroom and live-fire activities at various training facilities.

(2) AAAE/FAA Hazardous Materials Management School. This course meets requirements under the Occupational Safety and Health Administration's (OSHA) regulation 1910.120 regarding use, storage, handling and transportation of hazardous materials. The Environmental Protection Agency (EPA) also requires such training.

(3) AAAE/FAA Aircraft Rescue and Fire Fighting "Train the Trainer" School. This school is designed to instruct ARFF training officers in the proper techniques of developing and conducting ARFF training programs consistent with part 139 requirements.

(4) AAAE/FAA Aircraft Rescue and Fire Fighting Aircraft Familiarization School. This course provides hands-on training of emergency procedures from airlines and aircraft manufacturers. Training topics include aircraft design features, aircraft fuel systems, powerplants, and unique danger areas.

(5) AAAE/FAA Emergency Response School. This school provides training for personnel who are responsible for the planning for, managing of, or responding to an aviation emergency. The school includes case studies, workshops, and presentations by industry experts and government officials.

(6) AAAE/FAA Aircraft Rescue and Fire Fighting Chiefs School. This school provides training for ARFF Chiefs and other senior ARFF management, and provides an opportunity to participate with airport management in developing the most effective way to provide ARFF services in accordance with part 139.

c. Other Programs. The following organizations also provide firefighter training programs and/or reference materials. This list is not represented to be complete, nor does it indicate the only sources for such programs and/or reference materials. It does not represent an endorsement by the FAA. None of the programs or reference materials have been reviewed by FAA for adequacy.

Emergency Response Training Academy
P.O. Box 724
Blytheville, AR 72316
Telephone: (501) 532-2500
ARFF courses - basic and advanced.

Arkansas Fire Training Academy
P.O. Box 3499
Camden, AR 71701
Telephone: (501) 574-1521
ARFF course using FAA standardized curriculum, supplemented by a 16-hour course on flammable liquid firefighting that includes the use of structural firefighting equipment and the use of Aqueous Film Forming Foam (AFFF).

Aviation Emergency Training Consultants
21095 Lauretta Drive
Cupertino, CA 95014
Telephone: (408) 257-0378
ARFF courses - basic and advanced.

California State Fire Marshall
Headquarters
7171 Bowling Dr., Suite 600
Sacramento, CA 95823-2034
ARFF course, other specialized courses.

Airport Operations Division
Main Terminal Building
Room 426
Stapleton International Airport
Denver, CO 80207

State of Connecticut
Commission on Fire Prevention and Control
294 Colony Street
Meriden, CT 06450
Telephone: (203) 238-6587
ARFF course for fire departments who respond to aircraft emergencies with standard structural fire equipment, other specialized courses.

Georgia Fire Academy
1000 Indian Springs Drive
Forsyth, GA 31029-4670
Introductory ARFF course, flammable liquids fire control course.

Georgia Association of Fire Chiefs, Inc.
6724 Bells Ferry Road
Woodstock, GA 30188
Telephone: (404) 926-7155
Reference materials, training manuals and videos, curriculum packages.

Illinois Fire Service Institute
University of Illinois
Fire Service Institute Building
11 Gerty Drive
Champaign, IL 61820
Telephone: (217) 333-3800
Certified Airport Fire Fighter course.

Indiana Fire Instructors Association
424 Drake Road
Kendallville, IN 46755
Telephone: (219) 347-4748
(800) 654-4748
Fax (219) 347-4767
Reference materials, training manuals and videos, curriculum packages.

Iowa State University
University Extension
Fire Service Institute
Ames, IA 50011-3100
Telephone: (515) 294-6817
Fax: (515) 294-2156
ARFF courses.

Louisville and Jefferson County Air Board
Lee Terminal
Standiford Field
P.O. Box 21176
Louisville, KY 40221

Louisiana State University
Firemen Training Program
6868 Nicholson Drive
Baton Rouge, LA 70810
Telephone: (504) 766-0600
ARFF courses - basic and advanced, training for instructors. Basic course includes FAA standardized curriculum, and is also offered on-site.

Maryland Fire and Rescue Institute
University of Maryland
College Park, MD 20742
Basic training for instructors and officers.

The National Fire Protection Association (NFPA)
Batterymarch Park
Quincy, MA 02269
Telephone: (800)-344-3555
Reference materials, standards.

Duluth Technical College
2101 Trinity Road
Duluth, MN 55811
Telephone: (218) 722-2801
(800) 432-2884
ARFF courses, Emergency Medical Services for ARFF, use of structural equipment for ARFF.

Mississippi State Fire Academy
Rt. 10, Box 295
Jackson, MS 39208
Telephone: (601) 932-2444
Fax: (601) 932-2819
ARFF courses, reference materials.

Fire and Rescue Training Institute
University of Missouri
205 Lewis Hall
Columbia, MO 65211-0001
Telephone: (314) 882-4735
Fax: (314) 882-0678
Twelve-hour course with an emphasis on the use of structural fire apparatus in support of airport crash rescue operations at or near small to mid-sized airports.

Montana Air National Guard
Great Falls International Airport
Great Falls, MT 59401

State of Nevada
Department of Commerce
State Fire Marshall Division
Capitol Complex
Carson City, NV 89710
Telephone: (702) 687-4290
Fax: (702) 687-5122
ARFF course using FAA standardized curriculum.

State of New York
Department of State
Office of Fire Prevention
162 Washington Avenue
Albany, NY 12231-0001
Telephone: (518) 474-6746
Twelve-hour ARFF course for career and volunteer fire departments operating off-airport.

VIML/CETE, Public Safety Publications
The Ohio State University
1900 Kenny Road
Columbus, OH 43210-1090
Telephone: (614) 292-4277
Fax: (614) 292-1260
Reference materials, training manuals and videos, curriculum packages.

The International Fire Service Training Association (IFSTA)
Oklahoma State University
Fire Protection Publications
Stillwater, OK 74078
Reference materials, training manuals and videos, curriculum packages.

Pennsylvania State Fire Academy
1150 Riverside Drive
Lewistown, PA 17044
Telephone: (717) 248-1115
FAA Standardized ARFF course, 2-day Airport Annual Burn course.

South Carolina Fire Academy
2920 Fire Academy
West Columbia, SC 29170
Telephone: (803) 822-5380
Fax: (803) 822-5384
Basic ARFF course designed to meet part 139 and NFPA 1003.
Aircraft Rescue Fire Fighting Operations - Live Fire Evolutions course designed to meet annual refresher requirements of part 139.

South Dakota Air National Guard &
City of Sioux Falls Fire Department
Joe Foss Field
Sioux Falls, SD 57104

Fire Protection Training Division
Texas Engineering Extension Service
Texas A&M University
College Station, TX 77843-8000
Telephone: (409) 845-7641
Fax: (409) 845-9304
ARFF courses, basic and andvanced.

Utah Fire and Rescue Academy
Utah Valley Community College
800 West 1200 South
Orem, UT 84058-5999
Telephone: (801) 222-8000 ext. 510
FAX: (801) 371-0334
One-day ARFF course for engine companies.

International Civil Aviation Organization
1000 Sherbrooke Street West, Suite 400
Montreal, Quebec
CANADA H3A 2R2
Reference materials, audio and video training aids.

LEONARD E. MUDD
Director, Office of Airport Safety and Standards