U.S. Department
of Transportation
Federal Aviation
Administration

Advisory Circular

Subject: Aircraft Rescue and Fire Fighting Communications	**Date:** Draft **Initiated By:** AAS-300	**AC No:** 150/5210-7E **Change:**

1 Purpose.

This Advisory Circular (AC) provides guidance to assist airport operators in preparing for Aircraft Rescue and Fire Fighting (ARFF) communications.

2 Cancellation.

This AC cancels 150/5210-7D, *Aircraft Rescue and Fire Fighting Communications,* dated April 14, 2008.

3 Application.

The Federal Aviation Administration recommends the guidance and specifications in this advisory circular for Aircraft Rescue and Fire Fighting (ARFF) communications. In general, use of this AC is not mandatory. However, the use of the specifications in this AC is mandatory for ARFF communication projects funded under the Airport Improvement Program (AIP) or with revenue from the Passenger Facility Charges (PFC) program. Certificated airport operators may use these guidelines and specifications to satisfy the requirements of 14 Code of Federal Regulations (CFR), Part 139, *Certification of Airports*.

4 Principal Changes.

The AC incorporates the following principal changes:

1. Updated AC with current references.
2. Incorporated latest NFPA Standard numbers and dates.
3. Rewrote selected paragraphs to provide clarification and promote comprehension.
4. Updated the format of the document and made minor editorial changes throughout.

Hyperlinks (allowing the reader to access documents located on the internet and to maneuver within this document) are provided throughout this document and are identified with underlined text. When navigating within this document, return to the previously viewed page by pressing the “ALT” and “ ←” keys simultaneously.

5 Where to Find this AC.

You can view a list of all ACs at http://www.faa.gov/regulations_policies/advisory_circulars/. You can view the Federal Aviation Regulations at http://www.faa.gov/regulations_policies/faa_regulations/.

6 Feedback on this AC.

If you have suggestions for improving this AC, you may use the Advisory Circular Feedback form at the end of this AC.

John R. Dermody
Director of Airport Safety and Standards

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CHAPTER 1. OVERVIEW OF AIRPORT EMERGENCY COMMUNICATIONS

1.1 Objective.

The objective of the airport emergency communications system is to provide a primary and, where necessary, an alternate means of direct communication between the following:

1. The alerting authority, Airport Traffic Control Tower (ATCT), Flight Service Station (FSS), Airport Manager, fixed-base operator, or airline office and the Aircraft Rescue and Fire Fighting (ARFF) service.
2. The ATCT or FSS and the ARFF responders' en route to an aircraft emergency and at the accident or incident site.
3. The dispatcher and ARFF vehicles at the accident/incident site.
4. The ARFF Command and appropriate local and mutual aid organizations located on or off the airport, including an alert procedure for all auxiliary personnel expected to participate.

1.1.1 The ARFF Command and the Emergency Aircraft.

1.1.1.1 Discrete Emergency Frequency (DEF).

The DEF establishes a direct link between the Emergency Aircraft and ARFF Command for providing critical information about the Emergency Aircraft status, if not previously provided by Air Traffic Control (ATC) to ARFF Command (e.g., fuel on board, souls on board, hazmat or dangerous goods on board and location in aircraft, pilot intentions, etc.). ARFF Command will relay information to the Pilot of the Emergency Aircraft about the external situation of the aircraft, whether or not evacuation is recommended, and other hazards that may not be readily apparent to the Pilot. ATC will instruct the Emergency Aircraft and ARFF Command to switch to the DEF as specified in the ARFF Communications – Operating Procedures Memorandum of Understanding (MOU) for the Discrete Emergency Frequency between the Airport Operator and ATC (see sample MOU in Appendix E).

1.1.1.2 Use of the DEF.

Ensure transmissions are limited to ATC, the Pilot of the Emergency Aircraft, and ARFF Command due to the critical and timely nature of the information transmitted on this frequency.

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CHAPTER 2. AIRCRAFT RESCUE AND FIRE FIGHTING COMMUNICATIONS SYSTEM

2.1 ARFF Communications System Considerations.

Assure the ARFF communications system satisfies the airport's operational needs and address:

2.1.1 The initial notification method [alarm, dedicated telephone line (crash phone), two-way non-ATC radio, pager, dispatch service, etc.].

2.1.2 Direct and immediate communication of the applicable information to the primary responders.

2.1.3 Communication between primary responders and the following:

1. Airport controlling agencies, ATCT (Tower, Ground Control, Approach/Departure Control, FSS), and Airport Operations.
2. Emergency Aircraft (DEF) and Emergency Aircraft at airports without an ATCT or when ATCT is closed [Common Traffic Advisory Frequency (CTAF) or National Guard frequencies].
3. ARFF responding unit(s) internal command and control (each ARFF vehicle).
4. Individual ARFF personnel where operationally necessary.
5. Supporting units (local jurisdiction and mutual aid organizations).
6. Airport Operations, Maintenance, and Security.

Note: Training for ARFF personnel, air crews, airport operations, alerting authorities, and local/mutual aid responders can be found in Appendix B.

2.2 ARFF Communications System Components.

ARFF communications system will include the following:

2.2.1 ARFF vehicles.

2.2.1.1 All vehicles employed as the ARFF Command vehicle will have a hard-wired, permanently installed, selectable frequency transmitter and receiver (transceiver), including hard-wired, and permanently installed bases for removable hand-held units. These transceiver units will be capable of operating on any 25-KHz channel in the 118.0–136.975 MHz frequency band.

2.2.1.2 All other ARFF vehicles will have a transceiver capable of communicating on Tower, Ground, and/or UNICOM frequencies and be hard-wired and permanently installed (including hard-wired, permanently installed bases for removable hand-held units).

2.2.1.3 Ensure all transmitters are capable of transmitting a minimum of 5 nautical miles (9.26 km). All radios and transmitters will be licensed and operated in accordance with Federal Communication Commission regulations (47 CFR Part 87, Aviation Services, subparts D (Technical Requirements) and L (Aeronautical Utility Mobile Stations) apply).

2.2.1.4 Individual hand-held transceivers with Fire Emergency and Airport Operations frequencies where mandated (in addition to fixed radios in vehicles).

2.2.2 Dedicated telephone lines or cellular phones/personal paging devices.

2.2.3 Wide-area audible alarms located in strategic places.

2.2.4 Universal light gun signals (see Appendix A).

CHAPTER 3. INITIAL NOTIFICATION (ALARM) SYSTEM: COMMUNICATION OF ALARM FROM ALERTING AUTHORITY TO PRIMARY RESPONDERS

3.1 Alert Enhancement.

The ARFF station dispatch room at airports with an ATCT should be linked by a non-ATC two-way radio and direct-line telephone to the ATCT, the FSS, or other ATC point.

3.1.1 Ensure the emergency direct-line telephone does not transmit through any switchboard or operator that could subject the alert calls to delays.

3.1.2 Design the system to allow the tone of the emergency telephone bell (or buzzer) to be distinct from all other communications signaling devices and within hearing distance of personnel in the dispatch room, on the apparatus floor, or in living quarters, as applicable.

3.1.3 Assure redundant warning lights are activated to provide protection against delays due to telephone bell-buzzer failure. The warning lights will be activated by the same input signal as the telephone ringer. The lights will be strategically located throughout the dispatch room, the apparatus floor, and living space, as dictated by the fire station design and the normal activities of the ARFF personnel. The ARFF station alarm bells will be linked to the telephone ringer to allow calls on the emergency telephone circuit to simultaneously activate the audible alarm throughout the firehouse.

3.1.4 Ensure the alarm circuitry opens the vehicle doors in the fire station upon sounding the alarm. Some conditions (climatic, security procedures, or airport noise levels) may make this technique impractical.

3.1.5 Alarm activation stations will be provided at airports not equipped with ground-to-air radio or a formal fire service dispatch room. These stations will be provided near hangars, shops, fueling stations, and aircraft parking areas where vision of the operational runway is unobstructed, i.e., and where service/maintenance personnel normally work. These locations will allow the personnel to quickly activate an alarm upon detection of an emergency in the operational area for ARFF service.

3.1.6 Passenger loading bridges or other areas will be equipped with a method of rapidly activating the emergency response system in the event of an emergency (e.g., direct access via telephone or alarm system).

3.2 Airports with an Operating ATCT.

The ATCT provides the initial alarm to the ARFF department via one or more of the following methods:

3.2.1 Crash Phone.

A dedicated landline between the ATCT and ARFF station.

3.2.2 Alarm.

Siren or other audible device loud enough to be heard distinctly over typical airport noise levels that are audible in all areas where ARFF responders spend duty time.

3.2.3 Emergency Dispatch Center.

A central dispatching location that receives notice of an aircraft emergency, and alerts and dispatches ARFF responders.

3.2.4 Mobile Telephone.

3.3 Airports without an ATCT.

Establish a system for notification of the ARFF department (and other emergency responders, if applicable) through FSS, en route ATC facilities, air carrier operations departments, public 911 calls, airport operations, and other possible avenues of emergency notification. There is an alternate alerting method with qualified personnel available to operate it. Provide a means for availability of the appropriate communications and alarm control devices at the secondary alerting authority's operating location. They will be operational during all times the primary alerting authority is not available to ensure:

1. There is no delay in sending messages.
2. The length and content of messages are appropriate and complete.
3. Information is not degraded by interference (electronic/objects/etc.).
4. Reliable means are used to transmit emergency messages and activate alarm control mechanisms.

3.4 Off-Airport Fire Department.

ARFF is necessary on the airport during air carrier operations at 14 CFR Part 139 certificated airports, with limited exceptions. Ensure the off-airport fire station alarm(s) sounds upon activation of the direct emergency line when an off-airport fire department furnishes the rescue, fire-fighting equipment and personnel. The alerting/dispatch for airport emergencies is handled by an emergency direct-line telephone between the airport alerting authority and the off-airport fire department.

3.5 Multifunction Notification.

The notification of all units delegated to respond to an emergency at a large airport can be expedited using a "conference" circuit. Such an arrangement allows simultaneous notification. This "conference" circuit will include—

- ARFF service (will receive alarm first and respond while remainder of list is being notified).
- ATCT, FSS, or other control point.

- Airport police/security.
- Airport management (Operations and Maintenance).
- Military units (at joint-use airports).
- Other authorities on or off the airport as mandated by the Airport Emergency Plan (AEP).

3.6 Notification of Fire Fighters.

3.6.1 Fire stations where personnel are normally present for duty but may be preoccupied with "housekeeping" or training duties will be equipped with a public address (PA) system. This is particularly important at fire stations where the dispatcher room, training room, and living quarters are physically separated. A PA system can significantly enhance response time and fire fighter effectiveness by providing vital details of the emergency to the fire fighters during turnout, e.g., location of accident or incident site, type of aircraft, number of persons involved, aircraft fuel load, preferred vehicle routing, etc.

3.6.2 An integrated PA system may enhance notification to fire fighters at airports with a main ARFF station and one or more substations.

3.7 Notification of Dual-Function Personnel.

Install an audible alarm in all areas where auxiliary fire-fighting personnel are employed to notify them of an emergency recall for ARFF duties at airports employing dual-function personnel or auxiliary fire fighters. See paragraph 3.1.2 above. Provide an alarm with a distinct sound, and loud enough to be heard above the normal noise level.

3.8 Notification of Mutual Aid Units.

Provide a reliable voice communications capability between the ARFF services and any off-airport organizations expected to respond in the airport mutual aid plan. If there is more than one mutual aid responder, the multifunction notification (paragraph 3.5) will be utilized.

3.9 Dispatch Room Effectiveness.

3.9.1 Design and operate the ARFF service dispatch room to support ATCT request(s) for an aircraft's inquiry for assistance. Ensure an aircraft's request for assistance will be received, evaluated, and acted upon immediately to support ATCT notification of an aircraft's request for assistance. All personnel assigned to dispatch room duties will require training in communications equipment operations, proper communications procedures, and emergency plan implementation procedures.

3.9.2 Test the communications equipment system daily and ensure there is an emergency standby power source in the event of a power outage.

CHAPTER 4. COMMUNICATIONS BETWEEN ARFF PRIMARY RESPONDERS AND OTHERS

4.1 ATCT.

Assure that the ARFF responders request clearance to proceed into the airport movement area to the emergency location over the ATCT-published ground control and/or Tower frequencies after receiving initial information about the emergency via the notification. Provide a means for alternate procedures to be specified in the ARFF Communications – Operating Procedures MOU for the Discrete Emergency Frequency between the Airport Operator and ATCT (see sample MOU in Appendix E).

4.2 Emergency Aircraft Flight Crews.

If available, ATCT will provide a DEF to both the Emergency Aircraft and the ARFF Command in the event of a reported or observed in-flight or ground emergency. ARFF Command will delay transmissions to the Emergency Aircraft crew until cleared by ATC, unless the nature of the transmission is **critical** to emergency operation (e.g., ARFF Command sees smoke coming from aircraft prior to landing).

4.2.1 The DEF allows the ARFF Command and the Emergency Aircraft Flight Crew to communicate with each other directly so the ARFF Command can issue critical information about the exact nature of, and hazards associated with, an emergency in progress as well as recommendations for action. The DEF will be selected by ATC from operational frequencies available.

4.2.2 Ensure the DEF is available to the ATCT facility. ATC will notify the emergency aircraft and the ARFF Command in accordance with the MOU. (See Appendix E.) Include the following elements in the transmission from ATC directing the Emergency Aircraft to the DEF:

1. The frequency.
2. Statements that ARFF will be on the frequency with transmit and receive capability.
3. Identification is "ARFF Command".
    a. Transmit the following minimum information to the ARFF Command by the ATCT or Emergency Aircraft when time permits: "Souls on Board" – total number of passengers and crew.
    b. "Fuel on Board" – total quantity in pounds or kilograms. (See Table 4-1.)
    c. Location and type of any known dangerous goods/hazmat on board.
    d. Type of emergency, if known.

4.2.3 The ARFF Command, ATCT, and the Emergency Aircraft will transmit only on the DEF.

Note: If the Emergency Aircraft has dumped fuel after declaring emergency with ATC, revised fuel on board will be passed to the ARFF Command.

Table 4-1. Fuel Weight/Volume Conversion

Note: Conversion Factors: 6.7 lb/gal – 3.04 kg/gal

Pound	Gallons		Kilograms	Gallons
2,000 lbs	300 gal		2,000 Kg	658 gal
5,000	746		5,000	1,645
10,000	1,492		10,000	3,290
15,000	2,239		15,000	4,934
20,000	2,985		20,000	6,579
25,000	3,731		25,000	8,224
30,000	4,478		30,000	9,868
35,000	5,224		35,000	11,513
40,000	5,970		40,000	13,158
45,000	6,716		45,000	14,803
50,000	7,463		50,000	16,447
100,000	14,925		100,000	32,895
150,000	22,388		150,000	49,342
200,000	29,850		200,000	65,789
250,000	37,313		250,000	82,237

4.3 On Airports without an ATCT.

On airports without an ATCT or when the ATCT is closed, the Emergency Aircraft will contact the ARFF Command on the CTAF published for the airport or the civil emergency frequency (121.5 MHz). (Military aircraft emergency frequency - 243 MHz and Marine VHF radio channel 16; short range maritime use 156.8 MHz.)

4.4 Radio Communication for Non-Towered Airports.

ARFF Command should use established non-ATC emergency frequency networks for internal communications.

4.5 Local and Mutual Aid Support.

Communications with local and mutual aid follow-on responders will be on assigned emergency frequency networks, not the DEF. See paragraphs 2.1 through 2.1.3 for ARFF communications system considerations.

323 4.6 **Airport Operations.**

324 ARFF response units will communicate with Airport Operations personnel over
325 established non-ATC communications networks operating on assigned emergency
326 frequencies, not the DEF.

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CHAPTER 5. LOST COMMUNICATIONS PROCEDURES

In the event of the loss of radio communications, and/or loss of communication between ARFF vehicle(s) and ATCT, the following will apply: Please use the information from the "Introduction to ARFF DVD, Chapter 5, Communication", https://www.faa.gov/airports/airport_safety/aircraft_rescue_fire_fighting/arff-videos/#ARFF-intro.

5.1 Lost Communications between ATCT and Emergency Aircraft/ARFF Responders.

Universal ATCT light gun signals will be transmitted to the aircraft (for clearance to land) and to the ARFF responders in the movement area on the airport (for clearance to cross active runways and taxiways). See Appendix A. Light guns are used for permission to enter and move within the movement area during loss of communications between the ATCT and emergency aircraft/ARFF responders.

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CHAPTER 6. RADIO DISCIPLINE

6.1 Terminology.

Use plain language using standard terms and phrases. Avoid occupation-specific jargon and codes (e.g., "10 codes"). In airport/aircraft emergencies, standard aviation pronunciation and references will be used. See Appendix C.

6.2 Answering Calls.

Answer calls promptly and concisely. Pronounce words distinctly and slowly, without emotion.

6.3 Prioritizing Calls.

During critical phases of flight (final approach, transition to landing, and touchdown), only ATCT and the Emergency Aircraft will be transmitting on the DEF unless the emergency dictates otherwise (e.g., ARFF Command sees smoke coming from aircraft prior to landing).

6.4 How to Contact the Tower.

When using the radio, be careful not to "step on" (transmit over) other transmissions. Provide:

1. name of the receiving facility – who you are calling is identified first,
2. your call sign or vehicle identification,
3. your position,
4. your request,
5. and route if you so desire.

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CHAPTER 7. RADIO CALL SIGNS.

Emergency communications will only use location/function specific call signs. Make "ARFF Command" the universal identification for who is in charge of the ARFF.

1. Use airport/facility name followed by function.
2. Aircraft will use their ATC assigned call signs (e.g., American 30, Delta 340, November 123 Papa Alpha, etc.).

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APPENDIX A. AIRPORT TRAFFIC CONTROL TOWER (ATCT) LIGHT GUN SIGNALS

Table A-1. Meaning of ATCT Light Gun Signals

Color and Type of Signal	Signal To –		
	Moving Vehicles, Equipment, and Personnel	Aircraft on the Ground	Aircraft in Flight
Steady green	Cleared to cross, proceed or go	Cleared for takeoff	Cleared to land
Flashing green	Not applicable	Cleared for taxi	Return for landing (to be followed by steady green at the proper time)
Steady red	STOP!	STOP!	Give way to other aircraft and continue circling
Flashing red	Clear the taxiway/runway	Taxi clear of runway in use	Airport unsafe, do not land
Flashing white	Return to starting point on airport	Return to starting point on airport	Not applicable
Alternating red and green	Exercise extreme caution	Exercise extreme caution	Exercise extreme caution

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APPENDIX B. TRAINING

B.1 Training for ARFF Personnel.

- Demonstrate knowledge of the phonetic alphabet – Appendix C.
- Be able to identify radio frequencies and channels used by their organization and mutual aid organizations.
- Demonstrate the use of communication equipment used by their organization.
- Identify the procedures for receiving an emergency alarm.
- Identify procedures for multiple alarms and mutual aid.
- Demonstrate the proper procedure for obtaining clearance from the ATCT or other responsible authority for apparatus movement.
- Identify the local method used to communicate with aircrew personnel.
- Give an initial status report for a simulated aircraft accident.
- Be thoroughly familiar with ARFF/ATCT/Air Crew Emergency Communications Procedures (for ARFF Command and anyone who may assume that duty).
- Review Radio Discipline section – Chapter 6.
- Be familiar with Standard Aviation Pronunciation and Responses – Appendix C.
- Comply with Federal Communication Commission rules and procedures.
- Review Lost Communications procedures – Chapter 5.

B.1.1 Identify ATCT Light Gun Signals – Appendix A.

B.2 Training for Air Crews.

B.2.1 Familiarize aircrews with ARFF/ATCT/Air Crew Emergency Communications Procedures.

B.2.2 Review Lost Communications procedures – Chapter 5.

B.3 Training for Airport Operations, Alerting Authorities, and Local/Mutual Aid Responders.

B.3.1 Ensure that all participants are practiced and familiar with their duties under the Airport Emergency Plan procedures and duties.

B.3.2 Review DEF use and procedures.

B.3.3 Practice knowledge of system operation for notification of ARFF responders (and other emergency responders, if applicable).

B.3.4 Familiarize yourself with Standard Aviation Pronunciation and Responses – Appendix C.

Note: Training in this AC may be accomplished in conjunction with established recurrent training after initial familiarization.

APPENDIX C. STANDARD AVIATION PRONUNCIATION AND RESPONSES

C.1 ICAO International Phonetic Alphabet

A	Alpha	(**AL**-FAH)	**S**	Sierra	(SEE-**AIR**-RAH)
B	Bravo	(**BRAH**-VOH)	**T**	Tango	(**TANG**-GO)
C	Charlie	(**CHAR**-LEE)	**U**	Uniform	(**YOU**-NEE-FORM)
		(or **SHAR**-LEE)			(or **OO**-NEE-FORM)
D	Delta	(**DELL**-TAH)	**V**	Victor	(**VIK**-TAH)
E	Echo	(**ECK**-OH)	**W**	Whiskey	(**WISS**-KEY)
F	Foxtrot	(**FOKS**-TROT)	**X**	X-ray	(**ECKS**-RAY)
G	Golf	(GOLF)	**Y**	Yankee	(**YANG**-KEY)
H	Hotel	(HOH-**TELL**)	**Z**	Zulu	(**ZOO**-LOO)
I	India	(**IN**-DEE-AH)	**1**	Wun	
J	Juliett	(**JEW**-LEE-**ETT**)	**2**	Too	
K	Kilo	(**KEY**-LOH)	**3**	Tree	
L	Lima	(**LEE**-mah)	**4**	Fow-er	
M	Mike	(MIKE)	**5**	Fife	
N	November	(NO-**VEM**-BER)	**6**	Six	
O	Oscar	(**OSS**-CAR)	**7**	Sev-en	
P	Papa	(PAH-**PAH**)	**8**	Ait	
Q	Quebec	(KEH-**BECK**)	**9**	Nin-er	
R	Romeo	(**ROW**-ME-OH)	**0**	Ze-ro	

C.2 Radio Terminology

"MAYDAY"	International Distress Call (radio silence for others on frequency in use). When repeated three times, it indicates imminent and grave danger and that immediate assistance is requested.
"PAN-PAN"	(Pon-Pon) Urgency transmissions (do not block or interfere on frequency). When repeated three times, indicates uncertainty or alert followed by the nature of the urgency.
"ROGER"	I have received all of your last transmission.
"GO AHEAD"	Proceed with your transmission or request.
"WILCO"	I have received your message, understand it, and will comply with it.

“NEGATIVE”	“No” or “permission not granted” or “that is not correct”.
“AFFIRMATIVE”	“Yes”.
“ETA”	Estimated time of arrival – (runway-on time or at gate).
“SOULS ON BOARD”	Total number people on aircraft (passengers and crew).
“SAY AGAIN”	Used to request a repeat of last transmission.
“FUEL ON BOARD”	Total quantity of fuel on board aircraft in pounds or kilograms.

Examples of other terminology can be found in the *International Fire Service Training Association (IFSTA) Aircraft Rescue and Fire Fighting* (4th edition).

APPENDIX D. REFERENCE AND RELATED READING

D.1 ARFF Working Group.

A non-profit international organization dedicated to the sharing of ARFF information between airport fire fighters, municipal fire departments, and others concerned with aircraft fire fighting. For more information, contact the ARFF Working Group:

P.O. Box 1539
Grapevine, TX 76051
(972)-714-9412
https://arffwg.org/

D.2 Federal Communications Commission (FCC).

The FCC is the Federal agency that regulates interstate and international communications by radio, television, wire, satellite, and cable. For information, including forms or license status, contact the FCC:

445 12th Street, SW
Washington, DC 20554
Toll-free at (888) 225-5322
https://www.fcc.gov/

D.3 National Fire Protection Association (NFPA).

The NFPA's mission is to reduce the burden of fire on the quality of life by advocating scientifically based consensus codes and standards, research, and education for fire and related safety issues, including—

- Publication 402 – Guide for Aircraft Rescue and Fire Fighting Operations. Describes operational procedures for both airport and structural fire departments with ARFF responsibilities for non-military aircraft.
- Publication 403 – Standards for Aircraft Rescue and Fire Fighting Services at Airports. Covers requirements for providing and maintaining ARFF services at airports.

For more information, contact NFPA:

NFPA
1 Batterymarch Park
P.O. Box 9101 Quincy, MA 02269-9101
(617) 770-3000
https://www.nfpa.org/

D.4 Airport Trade/ Professional Associations.

Additional information may be obtained from airport associations, including the American Association of Airport Executives (AAAE) and the Airport Council International – North America (ACI–NA). For more information, contact—

AAAE	ACI-NA
601 Madison St	1615 L St NW #300
Alexandria, VA 22314	Washington, DC 20036
(703) 824-0504	(202) 293-8500
https://www.aaae.org/	https://airportscouncil.org/

APPENDIX E. SAMPLE MEMORANDUM OF UNDERSTANDING (MOU) ESTABLISHING PROCEDURES FOR ARFF COMMUNICATIONS

(Identifying name) Airport Authority (ATC facility) Airport Traffic Control Tower

Memorandum of Understanding Effective: (date)

Subject: Aircraft Rescue and Fire Fighting Communications – Operating Procedures

1. Purpose. To establish operating procedures for direct radio communication between the (identifying name) Aircraft Rescue and Fire Fighting – Incident Commander (ARFF Command), an aircraft flight crew, and the (ATC facility) Airport Traffic Control Tower (facility identifier ATCT).

2. Scope. The procedures outlined herein describe the authorization, use, and limitations of Discrete Emergency Frequency (DEF) use by aircraft, ARFF, and ATCT elements during an aircraft emergency. This MOU is used in conjunction with, and subordinate to, the MOU between (identifying name) airport authority and (facility identifier) ATCT to provide emergency services.

3. Responsibilities. Each party to this agreement is responsible for compliance by personnel under their authority with the provisions contained herein. Training, both initial and recurrent, of involved personnel is also the responsibility of the signatories.

4. Airport Authority Procedures.

a. Recognizing the (identifying name) airport authority's overall control of the airport, it has the need to monitor the DEF in use during an emergency for awareness of the situation and for planning purposes. If an aircraft emergency is in progress, the DEF is designated for communications between the ARFF Command, flight crew, and the ATCT.

b. The ARFF Command, call sign "(airport) Command" shall initially utilize the ground control frequency established for emergency response and maintain contact with (facility identifier) ATCT on such frequency until directed to switch to the DEF.

c. When directed to switch to the DEF, the ARFF Command will utilize that frequency for emergency communications with the flight crew. ATC personnel will use the phraseology "(airport) Command, (aircraft call sign) on (frequency)."

d. The ARFF Command may request permission from (facility identifier) ATCT to establish direct communications, on the DEF, with the flight crew of the aircraft involved in the emergency. The ARFF Command shall receive direct authorization from (facility identifier) ATCT and be assigned to the DEF prior to transmitting on it.

e. At no time during direct communication with the emergency aircraft shall the ARFF Command make issue with an ATC instruction or clearance. Terminology on the DEF shall be in accordance with this AC.

f. The ARFF Command shall notify the ATCT when the status of the emergency allows the release of the DEF. (Facility identifier) ATCT will then direct the emergency aircraft and all responding vehicles to return to the normal ground control frequency or as otherwise directed.

5. [Facility identifier] ATCT Procedures.

a. Once an emergency response has been initiated, the ATCT supervisor may elect to have a separate controller coordinate the emergency on the DEF.

b. The controller assigned to coordinate the emergency shall coordinate (with all appropriate operating positions) for the arrival of the aircraft and the intent/request of responding vehicles to proceed toward the site before issuing clearance for such.

c. Aircraft/vehicles already assigned to the DEF, but not involved in the emergency, shall be assigned another frequency.

d. The controller assigned to coordinate the emergency shall approve the ARFF Command to communicate directly with the flight crew of the emergency aircraft, as appropriate.

e. ATC shall issue instructions for the ARFF Command and aircraft to switch to the DEF. Phraseology: For ARFF Command, "(airport) Command, (aircraft call sign) on (frequency)". For aircraft, "(aircraft call sign), (airport) Command on (frequency) with transmit and receive capability."

f. When the DEF is in use, (facility identifier) ATCT will issue control instructions and information to the flight crew and ARFF vehicles on the DEF.

g. When notified by the ARFF Command that the status of the emergency allows the release of the DEF, (facility identifier) ATCT will then direct the emergency aircraft and all responding vehicles to return to the normal ground control frequency or as otherwise directed.

_____ _____

Air Traffic Manager,
(Airport name) Airport Traffic Control Tower

Airport Manager
(identifying name) Airport Authority

_____

Chief,
(airport name) Aircraft Rescue and Fire Fighting

Advisory Circular Feedback

If you find an error in this AC, have recommendations for improving it, or have suggestions for new items/subjects to be added, you may let us know by (1) mailing this form to Manager, Airport Engineering Division, Federal Aviation Administration ATTN: AAS-100, 800 Independence Avenue SW, Washington DC 20591 or (2) faxing it to the attention of the Office of Airport Safety and Standards at (202) 267-5383.

Subject: AC 150/5210-7E Date: _____

Please check all appropriate line items:

☐ An error (procedural or typographical) has been noted in paragraph _____ on page _____.

☐ Recommend paragraph _____ on page _____ be changed as follows:

_____
_____
_____

☐ In a future change to this AC, please cover the following subject:
(Briefly describe what you want added.)

_____
_____
_____

☐ Other comments:

_____
_____
_____

☐ I would like to discuss the above. Please contact me at (phone number, email address).

_____
_____
_____

Submitted by: _____ Date: _____