

CHAPTER 9. SHORE FACILITY FIRE SAFETY

- A. **Policy.** It is the Commandant's policy that the Coast Guard shall actively strive for an environment safe from fire. As a general rule, Coast Guard personnel shall not actively engage in structural fire fighting. Exceptions to this policy include the following: trained individuals whose primary duty is fire fighting; isolated units located where there are no municipal fire departments AND the commanding officer determines a fire brigade is necessary to carry out the mission of that unit; in order to save a life; or in instances where a fire is in the early stages and can be extinguished using a portable fire extinguisher.
- B. **Purpose.** The purpose of this chapter is to establish and implement a Coast Guard-wide fire safety program. The program shall enhance military readiness, mission capability, and the public interest. It protects Coast Guard personnel and facilities from mishaps due to uncontrolled fire.
- C. **Scope.** This chapter applies to all shoreside Coast Guard personnel and property. It does not apply to; (1) Internal fire protection requirements aboard Coast Guard ships, (2) COMDTINST M3710.2A related shipboard helo operations, (3) Activities performed under the Captain of the Port purview, or (4) to the Coast Guard leased quarters/housing program.
- D. **Authority.**
1. Principal Laws. The principal laws affecting fire safety programs are:
 - a. Occupational Safety and Health Act of 1970
Public Law 91-596, as amended (41 CFR 101-20)
 - b. The Fire Prevention and Control Act as amended
(15 USC 2200)
 - c. "Fire Fighter Standards, GS-081 series
(5 USC 8401) current revision
 2. Regulations and Other Directives. Regulations, references, and other directives reflecting current nationally recognized standards of good practice that affect the Coast Guard Fire Safety program include:
 - a. Code of Federal Regulations, 29 CFR 1910, Subpart L
 - b. Emergency Medical Care Training and Qualifications Requirements, COMDTINST 6440.1

- 9-D-2.
- c. Staffing Standards Manual, COMDTINST M5312.11
 - d. Civil Engineering Manual, COMDTINST M11000.11A
 - e. Aeronautical Engineering Maintenance Management Manual, COMDTINST M13020.1C
 - f. Shipboard Helicopter Operations Manual, COMDTINST M3710.2A (series)
 - g. Fire Protection Manual, Department of Transportation
 - h. Fire Risk Management Program, Department of Transportation DOT Order 3902.8
 - i. Department of Defense Fire Protection Program, DoD Instruction, 6055.6 (current edition)
 - j. Aircraft Firefighting & Rescue Manual, Naval Air Training and Operating Procedures Standardization (NATOPS) NAVAIR 00-80-R-14 (current edition)
 - k. Air Force Manning Standard, United States Air Force (USAF) AFMS 4426 (C1)(current edition)
 - l. National Fire Codes, (current edition), National Fire Protection Association
 - m. Fire Department Occupational Safety and Health Program, NFPA 1500 (current edition), National Fire Protection Association
 - n. Developing Fire Protection Services for the Public, NFPA 1201 (current edition), National Fire Protection Association
 - o. ICMA, Managing Fire Services, (current edition) International City Management Association
 - p. Uniform Fire Code, (current edition), Western Fire Chief's Association and International Conference of Building Officials (WFCA & ICBO)
 - q. National Fire Prevention Code, (current edition), Building Officials and Code Administrators International, (BOCA)
 - r. OMB Circular No. A-76 Revised March 29, 1979, section 5b & 6e

9-D-1. s. Security Manual, COMDTINST M5500.11 (series)

2. Published Coast Guard Safety and Environmental Health standards shall have precedence over all fire standards except those NFPA standards specifically cited herein. Where there is no published Coast Guard standard or designated NFPA standard, the most stringent applicable standard/code shall be considered to be a guide to good practice.

E. Definitions.

1. Advanced Life Support. All basic life support measures, plus invasive medical procedures, including; intravenous therapy; cardiac defibrillation; administration of antiarrhythmic medications and other specified drugs, medications, and solutions; use of adjunctive ventilation devices; and other procedures which may be authorized and performed under medical control.
2. Aircraft Crash Fire Rescue vehicle. A fire apparatus for use at air stations and airports that meets NFPA 414.
3. Ambulance. A vehicular conveyance designed and operated for transportation of ill and injured people in a prone or supine position, equipped and staffed to provide basic or advanced life support during transportation.
4. Automatic Aid. An established procedure which permits dispatchers to send the nearest available fire unit automatically, regardless of jurisdictional boundaries.
5. Basic Life Support. Generally limited to airway maintenance, breathing support, CPR, hemorrhage control, splinting of fractures, management of spinal injury, protection and transportation of the patient in accord with accepted procedures.
6. Coast Guard Fire Department. An organization of full time military and/or civilian personnel providing rescue, fire suppression, and related activities.
7. Crew (fire crew/crash crew). Generic term referring to the personnel assigned to a fire apparatus.
8. Emergency Medical Service. The response to requests for assistance in any instance involving a medical emergency. Service is provided at the basic or advanced life support level.
9. Emergency Medical Technician (EMT). A generic term referring to at least three (3) emergency care

- 9-E-9. (cont'd) positions; EMT (or EMT-A), attended a course at least 80 hours in length and is certified proficient in basic life support. EMT-Paramedic (EMT-P) has been trained in a program that includes as a minimum all fifteen (15) modules of the DOT national training course and is certified as proficient in advanced life support. EMT-Defibrillation (EMT-D), trained to use portable cardiac monitors and defibrillators, analyze certain cardiac rhythms, and apply defibrillation where appropriate.
10. Evolution. One aircraft evolution consists of one takeoff, one landing, or one touch and go flight.
 11. Facility. A separately defined (by OPFAC number) Coast Guard organizational entity, under a duly assigned commanding officer or officer-in-charge, provided with personnel and material for the performance of a prescribed mission.
 12. Fire Alarm System. A system for initiating an alarm as the result of detection of smoke, flame or heat; the operation of an automatic protection system including water flowing in a sprinkler system; or the discharge of a flooding agent (CO2/halon), or manual activation.
 13. Fire Apparatus. A vehicle assigned to the fire department used for fire suppression that complies with NFPA 1901-1903 or 414.
 14. Fire Brigade. An organized group of employees who are skilled, trained, knowledgeable of basic firefighting operations as outlined in 29 CFR 1910.156. They engage in fire suppression and related activities on an "as-needed or on-call" basis.
 15. Fire Chief. The highest ranking officer in charge of a fire department or fire brigade.
 16. Fire Engine. A fire apparatus equipped with a permanently mounted fire pump with a rated capacity of at least 1000 GPM or greater and complying with NFPA 1901-1903.
 17. Fire Fighting. Activities involved in controlling and extinguishing fires. For purposes of this chapter, fire fighting shall include all activities performed at the scene of a fire mishap, emergency, or training exercise that expose members to the dangers of heat, flame, smoke, or other products of combustion, explosion, or structural collapse.

- 9-E-18. Fire Origin & Cause. The point or area where the fire originated and where the cause of ignition may be found.
19. Hazardous Material. A substance that presents an unusual danger to individuals due to properties of toxicity, chemical reactivity, or decomposition, corrosiveness, explosion or detonation, etiological hazards, or similar properties.
20. Helicopter Landing Site. Any location not specifically designed or designated for helicopter operations where the frequency of helicopter operation does not exceed 24 helicopter operations per year. Helicopter landing sites may be parking lots, playing fields or vacant lots.
21. Heliport. A designated area of land, water or structure used or intended to be used for helicopter operations.
22. Heliport (Class A). Multipurpose stations and group offices with regular helicopter operations.
23. Heliport (Class B). Non-Aviation units with more than 24 helicopter operation per year.
24. Incident Command System. (ICS) An organized system of roles, responsibilities, and standard operating procedures used to manage and direct emergency operations.
25. Live Fire. Any unconfined or uncontrolled open flame that can propagate fire to other combustible material.
26. May. This term is used to state a permissive use or an alternative method to a specified requirement.
27. Mishap. Any unplanned, unexpected, or undesirable event causing injury, occupational illness, death, material loss, or damage. The term "mishap" shall be used in lieu of "accident" and/or "occupational illness."
28. Mutual Aid. A verbal or written agreement between two or more fire departments or government jurisdictions to respond to requests for fire apparatus assistance.
29. Operation. One complete aircraft or helicopter operation consists of one take off and landing.
30. Occupational Medical Monitoring Program. A program for monitoring the health of Coast Guard personnel working

9-E-30. (cont'd) in jobs designated as having high health risk potential to chemical and/or physical elements.

31. Shall. Indicates a mandatory requirement.

32. Turnout Clothes. Generic term that refers to all protective clothing and appliances used in the protection of fire department personnel.

F. Responsibilities.

1. General Responsibilities. All members of the Coast Guard have a personal responsibility to safeguard themselves, their families, fellow members, and government property entrusted to their care from mishaps.

2. Headquarters Responsibilities.

a. Commandant (G-K) as the support program director for safety and environmental health is responsible for developing, promulgating, managing, and overseeing a Coast Guard-wide fire safety program.

b. Commandant (G-KSE) under the general guidance of Commandant (G-K), is the support program manager for fire safety.

c. Commandant G-KSE-2 is responsible for establishing and promulgating instructions and standards for all shore facilities including shoreside Crash Fire Rescue (CFR) guidance for Air Stations and Heliports. G-KSE-2 also ensures that sufficient resources are provided to enable commands to carry out shore facility fire safety program responsibilities.

d. Commandant (G-KSE-1) shall maintain membership on the NATOPS Advisory Group. G-KSE-1 accepts requests for NATOPS and NFPA waivers. Commandant's Aviation Safety Board (CASB) grants waivers from NATOPS or NFPA requirements where such compliance is considered impractical or inappropriate for Coast Guard aircraft operations and aircraft type. Waivers shall only be granted upon application by the Air Station Commanding Officer via the chain of command. Approved waivers shall always indicate the specific purpose for which granted and the time limitations for the waiver. The NATOPS Advisory Group is to be advised of all Coast Guard waivers.

- 9-F-2.
- e. Commandant (G-E), (G-O), (G-M), and (G-N) are responsible for ensuring that all cognizant plans, programs, operations, facilities, and equipment meet appropriate fire safety standards and nationally recognized standards of good practice as referenced in this chapter.
 - f. Commandant (G-A) shall ensure that procurement requests for commodities, systems, and equipment have been reviewed by the originator for compliance with the standards referenced in this chapter.
 - g. Commandant (G-P) and (G-R) shall ensure that all applicable training plans, course outlines, training manuals, and like documents contain acceptable fire safety procedures and practices. Further, in conjunction with the Office of Engineering, ensure that physical plants and equipment used in training meet or exceed all applicable fire safety standards.

3. Field Responsibilities:

- a. MLC commander (k) is responsible for providing the necessary support and technical assistance to assist in implementing an effective fire safety program at all districts, area units, and headquarters units located within their organizational area of responsibility. These responsibilities include, but are not limited to:
 - (1) Ensuring fire hazards are entered into the safety and health hazard abatement system and tracked until abated.
 - (2) Ensuring that fire departments conduct fire incident investigations and report incidents in accordance with the National Fire Incident Reporting System (NFIRS) and this chapter.
 - (3) Reviewing employee notices of fire hazards and investigating these notices as necessary.
 - (4) Providing a preliminary hazard analysis, or, safety and health analysis to accompany planning proposals for Coast Guard units within their jurisdiction.

- 9-F-3.
- a. (5) Initiating action, as appropriate, to correct deficiencies or assisting in the implementation of corrective actions or recommendations.
 - b. Unit commanding officers/officers-in-charge (CO's/OIC's) are responsible for ensuring that personnel under their cognizance are provided an environment free from fire hazards. Specific responsibilities include:
 - (1) Developing a pre-fire plan including the provisions of paragraph L.
 - (2) Developing and issuing fire safety instructions.
 - (3) Ensuring that workplace inspections outlined in chapter 1-F-3(d)(2) include fire safety.
 - (4) Ensuring that applicable fire related sections of the standards in paragraph D of this chapter are implemented.
 - (5) Conducting fire prevention awareness campaigns and providing fire prevention training.
 - c. At units with fire departments, the CO/OIC shall ensure:
 - (1) Adequate funding is provided for fire departments based on DODI 6055.6, AFMS 4426 (C1), M5312.11A or this chapter.
 - (2) Fire Chief has direct communication and coordination with unit executive officer.
 - (3) The fire department is administered and managed in accordance with commonly accepted standards of good practice, including but not limited to current editions of NFPA 1000 series, 1200 series, 1500 series, National Fire Code guidelines and International City Management Association (ICMA) "Managing Fire Services."
 - (4) Fire Chief or his designated representative serves as the incident commander on emergency operations and may use an incident command system (ICS).

- c. (5) Fire fighters are provided Hazardous Material First Responder/Operations training in accordance with 29 CFR 1910.120.
- (6) Fire Departments shall review construction projects, facility modernization or rehabilitation projects, and self-help projects to assist in ensuring that they meet the requirements of the national model building and fire code in effect for the facility location and applicable National Fire Codes. The National Fire Protection Association (NFPA) Code 101 (Life Safety Code) shall take precedence over any conflicting requirements of the national model fire code in effect for the facility location.
- d. At units without fire departments, the CO/OIC shall ensure:
- (1) Fire protection is available for the protection of their facilities and tenant commands. A Memorandum of Understanding (MOU) may be established with the civilian fire fighting organization serving the jurisdiction in which the unit is located to ensure that fire protection will be provided and to ensure that all parties are aware of their responsibilities. Enclosure (17) is a sample MOU.
- (2) Limited assistance is provided in the event of a fire, such as directing emergency vehicles, crowd control, or assisting with personnel casualties.
- (3) The local agency or voluntary organization having responsibility for fire protection in the jurisdiction where the unit's buildings and housing units are located is invited to prepare, and biennially review, a pre-fire plan for the unit's buildings and housing units. If such agency or organization declines an invitation to prepare and review pre-fire plans, such actions shall be documented in a memorandum for the record and retained at the unit.
- (4) If a fire brigade of shore-based personnel is established, it meets or exceeds the minimum training requirements of NFPA 600.

Fire brigade members assigned to an advanced exterior or interior structural fire brigade shall be provided live fire training annually.

- e. In addition to the provisions of paragraph b. through d. above, commanding officers of air stations shall establish a CFR plan that meets or exceeds the requirements of section Q of this chapter.

G. **Fire Bill.** A fire bill is important for the protection of Coast Guard facilities. It shall outline the steps to be taken against a possible fire, should be permanently and prominently posted, and include:

1. Procedure for reporting fires;
2. Instructions for evacuating personnel;
3. Assignment of personnel responsibilities; and
4. Instructions for removal of equipment/materials, e.g., removing aircraft from hangars or vessels from piers. (Specific guidance for classified material is addressed in the Security Manual, COMDTINST M5500.11 (series)).

9-H Notification of Fire.

1. Individuals discovering a fire shall initiate the alarm, warn the building occupants, evacuate the facility, notify the fire department or appropriate agency, and guide suppression equipment to the scene of the fire.
2. All fires shall be reported, regardless of the size or nature, including those that have been extinguished.
3. Once the facility has been evacuated, no person shall reenter the facility until approval has been given by the fire official in charge.

I. Inspections.

1. Annual fire safety inspections shall be performed as part of the Safety and Environmental Health Inspection.
2. The following inspections are recommended to be conducted and documented by the unit safety supervisor, facility supervisor, shop supervisor or other designated unit personnel:
 - a. Weekly Visual Inspections. Hazardous occupancies or areas where the fire loading and ongoing activity presents a high risk to life, safety and severe fire potential. This includes industrial areas, refueling areas, aircraft maintenance facilities, ship overhaul facilities, and major construction and renovation projects.
 - b. Monthly. Barracks; dormitories; maintenance, transportation and recreation facilities; ordnance storage; flammable gas and liquids storage; health care facilities; dependant schools; day-care facilities; automated data processing and communication equipment facilities; and commissaries.
 - c. Quarterly. Common areas of multifamily housing, administration, adult schools, and all other structures, including mobile facilities, not inspected weekly or monthly, except family housing.
 - d. Annually. Low hazard buildings and family housing (including privately owned mobile homes on Coast Guard property).

9-J. **Fire Detection and Alarm Systems.**

1. Fire Alarm Systems. (automatic, manual, sprinkler) Fire alarm systems installed on Coast Guard facilities as a result of new construction or major building renovations shall be in compliance with NFPA 71 and 72 and transmit to a central alarm location at a Coast Guard fire station or a local fire department. Units without Coast Guard or local fire department shall transmit to a 24 hour manned watch station.
2. Smoke Detectors. Battery powered or electrically powered smoke detectors shall be installed in all base housing occupancies. "Hard wired" or electrically powered smoke detection systems are mandantory for new base housing, and new buildings with sleeping areas for personnel. This requirement includes new Coast Guard owned property and property to be leased by the Coast Guard.

K. **Reporting.**

1. A mishap report shall be submitted in accordance with enclosure (6) of this manual on of all fires that result in personal injury or damage to Coast Guard property. Chapter 6 of the Coast Guard Administrative Investigations Manual (COMDTINST M5830.1) requires an administrative investigation of all fires that result in personal injury or damage to Coast Guard property. These two investigations shall be conducted separately and independently.
2. At units with fire departments, the fire chief shall report fire incidents as outlined in the National Fire Incident Reporting System (NFIRS) in addition to the mishap requirements in K.1 above.
3. Fire Chiefs shall issue a quarterly report of the activities of the department such as inspections, abatement, responses, training, injuries etc; to the unit commanding officer and command safety officer.

L. **Alternative Fire Protection Options.** The majority of Coast Guard facilities receive fire protection from other agencies. These agencies may include other federal/military, city, county, municipality or state fire departments. The following options are available:

1. Local or State Government Contract. Contracting with the local fire protection agency is authorized to increase or enhance fire protection. Contracting with local government entities (city, county,

- 9-L. 1. (cont'd) municipalities, fire district or state) may be considered, but protection provided shall meet or exceed all requirements of this chapter.
2. Fire Brigades. Fire brigades may be organized at remotely located Coast Guard installations where external assistance is not readily available and the commanding officer has made a determination that a fire brigade is necessary to carry out the mission of the unit. Fire brigades shall meet or exceed the requirements of 29 CFR 1910.156 and be physically capable of performing the required tasks. Fire fighting equipment shall be provided in accordance with this chapter.
3. Mutual Aid Agreements. A written understanding covering the obligations and the extent of authorized action of each of the parties may be negotiated with local fire fighting authorities. Each agreement shall include a waiver by each party of all claims against the other party for compensation for any loss, damage, personnel injury, or death occurring as a result of the performance of such agreement. The agreement shall describe what Coast Guard equipment is maintained primarily for the purpose of supporting Coast Guard operation; what equipment and personnel are available; and that the Coast Guard shall, when properly notified of an actual or potential emergency, respond and render assistance. The Coast Guard shall receive like services from the other participants in the agreement.
4. On-Call Fire Fighters. The creation of an organized group of trained individuals to respond to fires is encouraged. The group shall be under the administration and management of the Unit Fire Chief and shall be trained to the NFPA minimum standards listed in NFPA 1001 (Fire Fighter I). Members of on-call fire fighting units shall be physically capable of performing the duties, trained to Fire Fighter I standards and reside within a reasonable response distance from the fire station.
- M. Emergency Medical Service Response. Fire departments may be prepared to respond to mishaps and medical emergencies. Training to meet or exceed the requirements of COMDTINST M6440.1 shall be required of personnel who respond to EMS calls. Procedures shall be developed and implemented with medical officers and dispensaries to allow for the initial response of fire personnel to EMS calls and/or the

9-M. (cont'd) operation of rescue ambulances where appropriate to preclude loss of life, further injury, or property damage. The minimum manning on any EMS ambulance operated by a Coast Guard Fire Department is two fully trained EMT personnel.

N. **Fire Department Personnel Training and Physical Fitness.**

1. General Training. Structural fire safety training programs shall conform to the NFPA 1000 series. Air station/facility fire training programs shall conform to NFPA 1000, 1003, and 1021.
2. Fire Exposure and Training. Fire exposure and training shall be given at least annually. The use of locally available training is strongly encouraged to provide realistic proficiency training at reasonable cost. Consideration shall be given to cooperative arrangements with state, county and local fire departments for realistic fire exposure and training.
3. Emergency Medical Technician (EMT) Training. EMT training programs for fire safety personnel shall meet or exceed the standards of COMDTINST 6440. Training of fire safety personnel to EMT standards shall be encouraged. The use of local schools, colleges and training centers is likewise appropriate and encouraged.
4. On-The-Job-Training. Training shall be provided and documented for all personnel assigned fire fighting duties through an on-the-job-training program. The training provided shall be both realistic and meet the standards outlined in the NFPA 1000 series. OJT shall not be substituted for formal basic training required for full time personnel to meet the minimum NFPA 1001 Fire Fighter I training requirements.
5. Physical Fitness. Military firefighters shall participate in a physical fitness exercise program designed to maximize job performance. Likewise civilian firefighters shall participate in physical fitness at those locations where a union contract has been negotiated that addresses the issue. Coast Guard firefighters shall meet the entrance and retention requirements of NFPA 1001 and NFPA 1500.
6. Bloodborne Pathogens. Training shall be provided in recognizing, evaluating and controlling the hazards associated with fire fighters who are potentially exposed to contaminated blood and infected victims during emergency rescue operations. Training is widely available through local commercial vendors.

9-0. **Personal Protective Equipment.** Fire departments and fire brigade personnel shall dress appropriately to be protected from radiant heat, flames, toxic products of combustion and oxygen deficiency. Personal protective equipment shall be procured, maintained and worn in accordance with current OSHA standards or NFPA codes and consist of at least the following components:

1. Turnout Clothes. NFPA 1971, Standard on Protective Clothing for Structural Fire Fighting, covers the minimum requirements for protective clothing. Protective garments consist of a coat and trousers, or a coverall designed to provide protection to the fire fighters body. Proximity clothing shall be required for all shoreside aircraft fire rescue. Protective garments meeting all applicable requirements of this standard shall be labeled as meeting the requirements of NFPA 1971 or NATOPS.
2. Helmets. NFPA 1972, Standard on Helmets for Structural Fire Fighting, provides the minimum requirements for helmets. Helmets shall essentially consist of a shell, an energy absorbing system, a retention system, reflective markings, ear covers, and faceshields. Labels shall be affixed to helmets that satisfy all the requirements specified in this standard.
3. Gloves. NFPA 1973, Standard on Gloves for Structural Fire Fighters, specifies minimum performance criteria and test methods for gloves. Gloves shall be made of durable outer material designed to withstand the effects of heat, vapor, liquids, sharp objects, and other hazards that are encountered during structural fire fighting. A label is permanently attached to each glove certifying it meets the requirements of NFPA 1973.
4. Footwear. NFPA 1974, Standard for Protective Footwear for Structural Fire Fighting, establishes minimum design and performance criteria for protective footwear. Protective footwear shall consist of a sole with heel, upper lining, and insole, with a puncture-resistant device and an impact and compression-resistant toe cap permanently attached. Protective footwear should be labeled certifying compliance with NFPA 1974.

- 9-0-5. Hoods. Members who engage in structural and crash fire rescue firefighting shall be provided with approved protective hoods that provide protection to the face, ears and neck and are compatible with SCBA facepieces, protective coats, and helmets.
6. Safety Goggles. Safety goggles with sideshields may be necessary when full face respirators are not in use and eye contact with debris is of concern.
7. Respiratory Protection. Approved self-contained positive pressure breathing apparatus (SCBA) shall be provided to and worn by structural and all aircraft fire fighters. The SCBA's shall have a minimum service life of 30 minutes and be equipped with an indicator which automatically sounds an audible alarm when the remaining service life of the SCBA is reduced to within a range of 20 to 25 percent of its rated service time. Coast Guard fire fighting personnel shall meet grooming standards to ensure that hair and beard styles do not interfere with the proper fit of SCBAs. Oxygen breathing apparatus (OBAs) are not approved for shoreside fire fighting.

P. Standardization of Fire Apparatus.

1. Structural Apparatus. Fire Apparatus (engines & trucks) shall meet or exceed the standards as set forth in NFPA 1901-1903 and engine shall have at least 1000 GPM pumping capacity.
2. Crash Fire Rescue (CFR). Apparatus shall meet or exceed the standards as set forth in NFPA 414.
3. Marking and Identification. All Coast Guard fire safety vehicles shall be clearly marked on both front doors. The marking shall be of appropriate size for the vehicle. Radio or vehicle identifying numbers used in coordination with automatic and mutual aid fire departments may be attached as needed for coordination and identification.
4. Vehicle Safety Equipment. The types of lights and sirens and their placement on the equipment shall be in compliance with DOT standards, NFPA 1901-1903, as well as local and state laws. DOT regulations shall take precedence over state and local regulations.
5. Communications Equipment. All vehicles assigned to Coast Guard fire departments shall be equipped with two way radio communications, both vehicle mounted and portable.

Q. Aircraft Crash Fire and Rescue

This section prescribes the minimum aircraft firefighting and rescue requirements for Coast Guard air stations. The primary duty of Crash Fire Rescue (CFR) personnel is saving lives. The secondary responsibility is to extinguish the fire and limit damage to the aircraft and property. This section applies to Coast Guard air stations and heliport operations.

1. Coast Guard air stations shall have CFR services available to meet operational needs. CFR services shall meet the applicable requirements of either the Department of Transportation Fire Protection Manual chapter 14.6, or the NATOPS U. S. NAVY AIRCRAFT FIRE FIGHTING AND RESCUE MANUAL (NAVAIR 00-80R-14) as specified by Commandant (G-KSE).
2. NAVAIR 00-80R-14 is not applicable in its entirety. This section addresses the deviations to NATOPS REQUIREMENTS.
3. NATOPS requirements can only be implemented at air stations where CFR resources are under the operational and administrative control of the Coast Guard or the air station is a tenant unit of another military service. At locations where Coast Guard resources are not provided, the commanding officers shall establish a memorandum of understanding with the local fire authority having jurisdiction to provide fire protection services, to meet or exceed the NATOPS requirements.
4. Where the Coast Guard is a tenant of an airport which does not meet NATOPS criteria, an agreement shall be negotiated whereby adequate CFR services shall be provided to meet the criteria of NFPA standards 402M, 403, and 414.
5. The apparatus and equipment specified to comply with these requirements are not designated for application to structural fire fighting and should not be used for that purpose. Equipment for CFR operations shall be in addition to that required for structural fire protection.
6. Combined Fire Departments.
 - a. The two principal fire protection functions at Coast Guard air stations are aircraft fire rescue and structural firefighting. These services shall be organized and consolidated in accordance with the administrative direction of the commanding officer.

- 9-Q-6. b. The station fire chief shall be responsible for the operational readiness, performance, technical training and management of the fire protection organization. The fire chief or his designated representative shall have direct supervision and control of all fire fighting rescue operations at the immediate scene of an aircraft emergency. The air operations officer or his designated assistant exercises overall control of the air field other than the immediate scene of an accident.
- c. The combined fire functions require that civilian and military personnel assigned to the fire protection organization be appropriately trained in both structural and aircraft fire and rescue procedures. Position descriptions shall embrace all duties and responsibilities associated with aircraft and structural fire fighting.
- d. Where the combined fire protection organization is located in common quarters, one aircraft fire fighting rescue vehicle should be crossmanned by personnel normally assigned to structural fire fighting duties. One structural fire pumper shall be maintained in a fully manned condition at all times to permit ready response to structural fire emergencies.
7. Minimum Response Requirements for Fixed Wing and Multi-Use Air Stations.
- a. Table 5-1 of NAVAIR 00-80R-14 (Table 9.1) contains the minimum response requirements necessary to adequately perform the aircraft crash fire and rescue functions. Commandant (G-KSE-1) shall establish the airfield category for Coast Guard air stations predicated on the aircraft gross weight of the heaviest aircraft assigned at the activity. The airfield category shall be reviewed every three years by Commandant (G-KSE-1) to ensure adequate CFR protection. Requests for aircraft category changes shall be initiated and fully justified at the air station level and submitted to Commandant (G-KSE-1) for review and approval.

Gross Weight Category	Aircraft Maximum Gross Takeoff Weight in Pounds	Truck Capacity/Flow Water	GPM*
1	Up to 10,000	**	N/A
2	10,000 to 200,000	2,000	1,000
3	200,000 to 500,000	4,000	1,500
4	500,000 and above	7,000	2,500

Note

A minimum requirement for gross weight categories 2 and 3 above shall consist of a minimum of two major CFR vehicles and category 4 shall consist of a minimum of three major CFR vehicles.

* GPM delivery rate based on fire fighting and rescue truck onboard water/AFFF supply delivered by the roof turrets.

** Or as directed

Figure 9-1. Minimum Response Requirements

- 9-Q-7. b. **Activities without aircraft assigned.** An airfield category shall be determined by the type/gross weight of the aircraft normally supported. The airfield category shall be reviewed every three years by Commandant (G-KSE) to ensure adequate CFR protection. Requests for category changes shall be initiated and fully justified at the Air Station level and submitted to Commandant (G-KSE) for review and approval.
- c. **The minimum response times are:**
- (1) One minute for any incident on the runways or overruns after repositioning for an announced emergency, or
 - (2) Three minutes to any incident on the runway or overruns for an unannounced emergency.

9-Q-8. **Minimum Requirements for Heliports.** Heliports shall meet the following requirements for CFR.

- a. Helipads at fixed off shore marine stations are otherwise protected and are not included in these standards. These standards do not apply to remote station runways.
- b. Heliports located at multi-use air stations shall use the criteria in 9.Q.7.
- c. Heliports with more than ten operations per day shall be supplied with a "Twinned Agent" vehicle.
- d. All other heliports shall be protected with potassium bicarbonate (PKP), multipurpose (ABC) dry powder, and where a water supply is adequate and funds are sufficient, with hose streams in accordance with the following:

AIRCRAFT	CLASS A HELIPORT	CLASS B HELIPORT
HH-65A	1 ea. 20 lb. ABC or PKP 1 ea. 150 lb. PKP 1 ea. 100 GPM hose stream *	4 ea. 30 lb. PKP
HH-3F HH-60J	1 ea. 20 lb. ABC or PKP 2 ea. 150 lb. PKP 2 ea. 100 GPM hose streams *	2 ea. 30 lb. PKP 1 ea. 150 lb. PKP
NOTE: Halon-1211 extinguishers of equal size may be substituted for ABC or PKP extinguishers until they are phased out of use.		
* Hose streams shall be capable of reaching all areas of the helipad. The hose streams should be equipped with foam producing capabilities.		

Table 9-2

- e. Fire fighting tools including extinguishers, pumps, hoses, hose nozzles, and foam making equipment, should be kept in clearly marked weatherproof cabinets. These cabinets should be located within 50 feet of the helipad area, but not protruding into the normal approach or departure paths.

9-Q-9. Aircraft Fire Fighting and Rescue Vehicles.

- a. Major aircraft crash fire fighting and rescue (CFR) vehicles are listed in Paragraph 5.2 of NAVAIR 00-80R-14. The type and quantity of CFR vehicle assigned will vary with the operational status of the air activity. Additional apparatus, over and above the minimum response, should be provided to allow for repair and maintenance or for exceptionally hazardous or intense flight operation.
- b. Supporting Aircraft Fire Fighting and Rescue vehicles.
 - (1) Auxiliary CFR vehicles are small light weight, multidrive type vehicles, equipped with twinned agent capabilities, forcible entry tools and field lighting equipment. The P-10 and P-13 CFR trucks are in this category.
 - (2) Tank vehicles (Tenders) are mobile water supply trucks with capacities of 1000 to 5000 gallons. They are used to resupply primary fire fighting and rescue vehicles with liquid agents over extended periods of operation. Tank vehicles should meet the requirements of NFPA standard 1903.
 - (3) Structural fire pumpers and brush trucks may be used to backup CFR vehicles. They should be equipped with foam capabilities.
 - (4) Command and control vehicles are small, light weight, multidrive vehicles equipped with communications equipment and command associated equipment. They are used by the on scene incident commander to control the incident.
 - (5) An ambulance is a vehicle designed and built for emergency patient care and transport. Federal specifications KKK-A-1822C give the requirements for emergency care vehicles.

9-Q-10. Personnel Requirements.

- a. Minimum on duty requirements to operate the major CFR vehicles necessary to meet the minimum response requirements is four (4) personnel; Driver/Operator, Lead Fire Fighter (Crew Chief), Fire fighter, and Rescueman.
- b. Crew requirements to operate supporting CFR vehicles are:
 - (1) Rescue Truck 2 Persons
 - (2) Twinned Agent Vehicle 2 Persons
 - (3) Tanker (Tender) 2 Persons
 - (4) Structural Fire Pumpers 4 Persons
 - (5) Brush Fire Trucks 3 Persons
 - (6) Ambulance 2 Persons
- c. Air Station commanding officers may increase the minimum manning as appropriate for each CFR vehicle if the primary mission of the Air Station involves extra hazardous flight operations.
- d. Staffing at Coast Guard Fire Protection Activities is determined in COMDTINST M5313.11, Chapter 28.
- e. If additional duties are required, additional personnel shall be assigned.
- f. Extra hazardous flight operations are those by reason of training, intensity, or number of aircraft involved increase the potential for an aircraft mishap. Determination of whether an activity is conducting extra hazardous flight operations is the responsibility of the commanding officer or officer in charge.
- g. Alert Requirements.
 - (1) Immediate Response Alert. The commanding officer shall determine the need for an immediate response alert. When posted, the immediate response alert shall consist of a major CFR vehicle manned and strategically located to provide immediate and initial rescue and firefighting to takeoff and landing emergencies. No crew member shall be required to stand more than eight (8) hours of immediate response alert duty in a 24 hour period.

- 9-Q-10. g. (2) Standby alert. A standby alert shall be maintained at all times during flight operations. Such an alert shall consist of the required minimum response CFR vehicles and crews. The alert shall be maintained to permit response as required in 9.Q.7.c. Upon notification of an anticipated or impending emergency, the standby alert shall assume the readiness condition from the immediate response alert at a pre-designated location on the field.
- (3) Backup Standby Alert. During flight operations, a backup standby alert consisting of medical/ambulance personnel, security, structural fire companies and hazardous materials teams shall be maintained in a condition of readiness that will permit prompt **RESPONSE FROM NORMAL WORK AREAS to a standby alert position.** Upon notification of an emergency, these forces shall assume the **condition of readiness of the standby alert** and await instruction from the senior fire officer at the scene of the emergency.
11. **Training Requirements.** Standard and continuous training shall be provided and documented for all personnel through an on the job training program. Section 5.8 of NAVAIR 00-80R-14 provides a listing of training requirements, subjects, fire prevention and extinguisher training, training aids, as well as a list of aircraft familiarization films. CFR personnel shall be qualified and certified in accordance with NFPA standard 1003 Airport Firefighter. International Fire Service Training Association (IFSTA) training manuals, Air Force TO 00-105E-9 and NAVAIR 00-80R-14-1 are excellent reference material for training purposes.
12. **Emergency Communications Requirements.** Emergency communications systems as outlined in section 5.9 of NAVAIR 00-80R-14 shall be established as a minimum requirement.
13. **Administrative Reporting and Records Requirements.**
- a. Safety and Health mishap reporting requirements are contained in this manual. Administrative investigation requirements are contained in the Coast Guard Administrative Investigations Manual (M5830.1).

13. b. Aircraft mishaps involving any Department of Defense aircraft require submitting DOD Form 2324 within 14 days following the incident to the Commander, Naval Safety Center (ATTN: Code 44), Naval Station, Norfolk, VA 23611-5796. A copy of the DOD Form 2324 should also be sent to the aircraft custodian. This report is independent of Coast Guard mishap reporting requirements.
- c. Non-fire reporting requirements are contained in Chapter 3 of this instruction.
- d. CFR Daily Journal. A daily journal shall be maintained by each CFR organization. This journal should be a chronological listing of all pertinent events and retained on file for a minimum of 3 years after the journal is completed.
- e. Response Report. A locally produced report of the details of each response run made by the CFR unit shall be made. These response reports shall be retained on file for 3 years.
- f. Crash Fire and Rescue Bill. Each air activity shall maintain a crash, fire and rescue bill which includes the operational and functional details for both on station and off station crash, fire, and rescue incidents. IFSTA manual 206 and NFPA standard 424 may be used for guidance when developing station crash, fire and rescue bill. An activities pre-mishap plan which provides all the necessary elements of the crash, fire and rescue bill shall satisfy this requirement.
- g. Crash Locator Maps. In order to provide uniform response by all agencies to crash areas, a standard uniform map system shall be developed and maintained at each air activity. The map system should cover an area 20 miles in all directions from the center of the airfield. The map system shall be available to all vehicles that respond to aircraft mishaps, and all stations on the primary and secondary communication system.

