

**BY ORDER OF THE
SECRETARY OF THE AIR FORCE**

**AIR FORCE TACTICS, TECHNIQUES,
AND PROCEDURES 3-32.41**



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Tactical Doctrine

**CONTINGENCY FIREFIGHTING
OPERATIONS**

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The Air Force Tactics, Techniques, and Procedures (AFTTP) presented in this publication provide Air Force (AF) civil engineer fire and emergency services (F&ES) personnel with information to help prepare their installations for disasters and war. It highlights F&ES preparations in contingency and expeditionary firefighting planning factors and operational considerations. The material presented in this publication is not intended to provide detailed operational procedures; rather it addresses general firefighter preparations for natural and manmade accidents, terrorism, and war. Refer recommended changes and questions about this publication to the Office of Primary Responsibility (OPR) using the AF form 847, Recommendation for Change of Publication; route AF Form 847 from the field through the appropriate functional chain of command and Major Command (MAJCOM) publications/forms managers. Ensure all records generated as a result of processes prescribed in this publication adhere to Air Force Instruction 33-322, Records Management and Information Governance Program, and are disposed in accordance with the Air Force Records Disposition Schedule, which is located in the Air Force Records Information Management System. The use of the name or mark of any specific manufacturer, commercial product, commodity, or service in this publication does not imply endorsement by the AF.

SUMMARY OF CHANGES

This document has been substantially revised and needs to be completely reviewed. Major changes include: Clarifies alarm condition signals; adds decontamination procedures for JFIRE ensemble; adds Tactical Combat Casualty Care (TCCC) with SABC kits and additional medical care; adds Unified Facilities Criteria (UFC), 3-601-2 Operation and Maintenance: Inspection,

Testing, and Maintenance of Fire Protection Systems; and clarifies purchasing codes; decreasing logistical processing time.

APPLICATION: This publication applies to all civilian and military members of the Regular Air Force, Air National Guard, and Air Force Reserve Command F&ES units. **This AFTTP is nondirective. However, suggested procedures, actions, or tasks may be presented in directive language to improve readability and understanding by simplifying sentence structure.** Except when specified actions are mandated by AF or Department of Defense (DOD) directive publications, units may modify the actions, directions, tasks, and worksheets to suit their needs.

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Chapter 1

SCOPE

1.1. Introduction. This publication explains doctrine and procedures to guide commanders and Fire and Emergency Services (F&ES) personnel at all levels in protecting mission resources during contingencies. Additionally, this publication provides basic procedures and guidance to ensure survivability of all firefighting resources during conflict. It describes flight organization, planning guidance, developing installation firefighting plan, Joint Firefighter's Integrated Response Ensemble (J-FIRE) concept of operations, contamination avoidance, and fire responses during various attack postures. These contingencies may include but are not limited to: major combat operations, humanitarian relief operations, responses to manmade or natural disasters; etc. These operations may occur at bare bases, forward operating bases, co-located bases, or aerial ports.

1.2. Mission. The Air Force F&ES mission is to provide fire prevention services and minimize negative consequences of emergency incidents. The scope of services includes releases of hazardous materials (including chemical, biological, radiological, and nuclear (CBRN)) resulting from accident, natural causes, or intentional use as a weapon of mass destruction (WMD); fires that endanger people, property, or the environment regardless of property involved (wildland, equipment, buildings, aircraft, etc.); fires in nearby federal agency facilities in the event normal F&ES are inhibited; persons trapped or otherwise unable to escape a dangerous situation; prehospital medical emergencies (non-transport); or intervention at other emergency situations such as natural or manmade disasters that threaten life, property, or the environment.

1.3. Contingency Firefighting. During contingency operations, firefighting forces are the primary installation emergency response team and are responsible for supporting the commander's primary requirement to launch and recover sorties. To meet this requirement, F&ES operations may differ from normal peacetime operations. The information contained herein will assist commanders and firefighters in understanding the risks and calculated assessments required to sustain the contingency F&ES mission. Typical contingency manpower and resources are based on the *War Mobilization Plan, Volume 1* (WMP-1), Civil Engineer (CE) Supplement, Appendix 5 (for wartime planning), or *AFPAM 32-2004, Aircraft Fire Protection for Exercise and Contingency Operations* for short duration operations generally less than 120 days. Note: The primary contingency F&ES mission is to support sortie generation; protecting critical, high priority components supporting the flying mission is secondary and is articulated as Emergency Response Capability (ERC). ERC is the level of service that can be provided with available personnel, equipment, vehicles, and fire extinguishing agents. The ERC can be affected by the lack of trained personnel, reduced firefighting agent, equipment out-of-service, and the capability to meet established response times. Decision-makers at all levels should be informed when the ERC is below standard requirements. Since home station F&ES resources are shared to support contingency operations, risk management should be employed more aggressively due to the reduced F&ES resources at both home stations and contingency locations. Additional risk is expected at both locations.

1.4. Limiting Factors (LIMFACS). Firefighters may have limited capabilities or resources during contingency operations (especially during initial stages of a deployment). The amount of

resources common to peacetime operations, such as manpower, vehicles, agents and equipment, may not be available.

1.4.1. Unit Type Codes (UTCs) do not exist separately for training, logistics, or Emergency Communication Center (ECC). These functions may be performed by shift personnel as additional duties during contingencies. Additionally, unique contingency tasks such as security, shelter management and Contamination Control Area (CCA) could be tasked to F&ES personnel once follow-on forces arrive. Fire chiefs should prioritize the services to be provided and conduct a risk assessment so sortie support is not compromised during the initial stages of a deployment.

1.4.2. Firefighter performance is greatly reduced when operating in the Joint Firefighter Integrated Response Ensemble (J-FIRE) due to the ensemble placing additional physical burdens on the firefighter. Physical challenges related to J-FIRE include increased weight, thermal burden, increased difficulty breathing through the C-2 canister, the need for increased work-rest cycles (WRC) and rehabilitation difficulties after an emergency response. These LIMFACS are considered during emergency operations. Expectations from firefighters should be reduced and the focus shifted to protecting only the highest priority resources.

1.4.3. Lack of adequate water supply will limit F&ES capability; therefore fire chiefs should pre-plan responses taking that potential LIMFACS into consideration.

1.4.4. Fire vehicles carry required firefighting agents and firefighters to the scene of an incident. Reduction of vehicles or out-of-service vehicles diminish response capability.

1.4.5. F&ES resources will be vulnerable to attack until splinter protection, hardening and contamination avoidance measures are in place. This includes resources such as fire facilities, vehicles, communications equipment, personnel, rescue equipment, extinguishing agents and personal protective equipment (PPE).

1.4.6. Limited supplies of extinguishing agents (Aqueous Film Forming Foam (AFFF), dry chemical, and water) will hinder or prevent operations to extinguish large fully involved fires which include Petroleum, Oil, and Lubricants (POL), munitions, aircraft, and large square footage facilities.

1.4.7. Enemy attack may include Chemical, Biological, Radiological, Nuclear, and Explosive Materials (CBRNE), Improvised Explosive Devices (IEDs), Vehicle Born Improvised Explosive Devices or ground attack by enemy forces. Consequently, unexploded explosive ordnance (UXO) can delay fire response. The Senior Fire Officer (SFO) ensures UXOs blocking access to mission essential assets are cleared by Explosive Ordnance Disposal (EOD) personnel as soon as possible. In this environment, firefighters should perform explosive ordnance reconnaissance in their surrounding areas as well as response routes that could possibly cause delays in emergency response. These delays may allow fires to progress prior to F&ES arrival, increasing the need for larger amounts of firefighting agents. If appropriate, the SFO may allow some fires to burn to save resources for higher priorities or to avoid unreasonable risk to firefighters.

1.4.8. The absence of armored firefighting vehicles limits responses to areas inside the fence in hostile environments where attacks “outside the wire” are expected. Responses outside the wire will only occur with approval of the Installation Commander and follow guidelines

established for such responses. Procedures for outside the wire operations should be prepared and approved at the beginning of operations.

Chapter 2

ROLES AND RESPONSIBILITIES

2.1. Installation Commander. Installation commanders are responsible for establishing comprehensive installation F&ES programs. These programs execute Department of Defense Instructions (DODI) 6055.06, DoD Fire and Emergency Services (F&ES) Program, DoDM 6055.06, DoD Fire and Emergency Services Certification Program, AFD 32-20, Fire and Emergency Services, and AFI 32-2001, Fire and Emergency Services Program (F&ES).

2.1.1. The scope of services identified in the Standard of Cover, at a minimum, will include fire prevention, emergency communications, minimizing adverse consequences at aircraft or structural incidents at one location, rescuing trapped persons (automobile accidents and confined spaces), managing Hazardous Materials (HazMat) release with defensive operations, pre-hospital non-transport-based emergency medical services, and controlling Wildland Urban Interface.

2.1.2. The F&ES Flights' resource authorizations are based on the most demanding core services and the assumption that only one major emergency incident will occur at a time. In the event that multiple incidents occur, response priorities are pre-determined in installation emergency management plans.

2.2. Transportation. The SFO will submit requests to:

2.2.1. Provide vehicle mechanics.

2.2.2. Accomplish fire vehicle repairs in fire station or dispersal locations.

2.2.3. Provide replacement fire vehicles and parts as required. Replacement parts receive the highest force activity designator (FAD) assigned to the mission being supported if the part renders a fire vehicle out of service or in a limited service status.

2.3. Supply, Contracting and Finance Functions. All supplies and firefighting equipment may be provided through local vendor services and contracts. Firefighting equipment is National Fire Protection Association (NFPA) compliant. All requisitions for critical F&ES equipment is equal to the highest FAD assigned to the mission being supported. Submit requests to:

2.3.1. Provide firefighter PPE and other supplies.

2.3.2. Provide J-FIRE component replacements in sufficient quantities to accommodate existing or inbound firefighters.

2.3.3. Provide firefighting agents as required.

2.4. Services. The SFO submits requests to:

2.4.1. Provide billeting for firefighters. Firefighters may be dispersed to minimize the impact of enemy attacks. Response capability impacts are considered when making this determination.

2.4.2. Provide food services to firefighters.

2.4.3. Assist in posting fire reporting, prevention and safety information in life support areas and work areas.

2.5. Personnel Support for Contingency Operations (PERSCO). The SFO submits requests to:

2.5.1. Make emergency manpower requests through the Area of Responsibility (AOR) F&ES functional manager.

2.5.2. Brief fire prevention, emergency reporting and other safety procedures during processing.

2.6. Communications . The SFO submits requests to the communications function to obtain, install, and maintain the ECC communications network which includes portable radios and mobile head units for vehicles.

2.7. Security Forces. The SFO submits requests to SF to provide physical and emergency services as necessary. However, firefighters may be required to carry weapons thus providing self- security.

2.8. Civil Engineers. The SFO coordinates actions in the following scenarios below. The list is not exhaustive, but most common.

2.8.1. Provide EOD services on a priority basis when UXOs hinder F&ES response.

2.8.2. Provide power production and barrier maintenance expertise for generator support and barrier reset operations.

2.8.3. Assist with large-scale decontamination of F&ES assets.

2.8.4. Provide required emergency management support elements.

2.8.5. Provide a high priority for splinter protection and hardening, and contamination avoidance measures of F&ES assets.

2.8.6. Provide, maintain and improve firefighting water supplies.

2.9. Fuels. The SFO submits requests to the fuels function to:

2.9.1. Service F&ES vehicles and equipment.

2.9.2. Provide POL storage area familiarization training to firefighters.

2.9.3. Assist in fuel transfer operations and provide expertise in the event of a POL storage area incident.

2.10. Unit Control Centers (UCC). UCCs ensure that:

2.10.1. All personnel are trained in fire prevention, reporting, and safety procedures and responsibilities (see [Attachments 4](#) and [7](#)).

2.10.2. All HazMat storage facilities are limited to only those necessary to accomplish the mission.

2.11. Contingency Response Group Element (CRGE). The SFO submits requests to the CRGE to:

2.11.1. Provide information/support on air flow movement.

2.11.2. Provide information on aircraft parking.

2.12. Base Operations (Airfield Management). The SFO submits requests to:

- 2.12.1. Obtain flightline licensing.
- 2.12.2. Obtain airfield layout maps.
- 2.12.3. Obtain daily flying schedule

Chapter 3

PLANNING GUIDANCE

3.1. Introductions. The focus of fire resources in wartime or during contingencies is fire prevention and firefighting. Fire prevention focuses on preparing occupants and operators to operate safely, prevent fires, detect and intervene early when and if fires occur. The firefighting element protects weapons systems and facilities needed to accomplish the mission. A critical first step is to develop a list of priorities on the installation. This is a cooperative effort with the Emergency Management element. At some locations, aircraft may be the highest priority for protection while at others, facilities may be more critical than aircraft. Wartime staffing assumes operating from a central fire station where all resources are based. It also assumes that only one major emergency event will occur at a time. Risk assessment and management procedures, response time standards and operational procedures are similar to home station operations. F&ES response strategies may be complicated by the presence of chemical agents, antipersonnel devices, and munitions. F&ES capability is included in appropriate base recovery plans.

3.2. Force Packages. Firefighters are postured into force packages identified by unit type codes (UTC).

3.2.1. The 6-person Fire Operations team (4FPFP) is the basic building block. It provides the manpower to manage emergency operations, including staffing fire trucks and emergency communications centers.

3.2.2. The 2-person Incident Command team (4FPFJ) provides mid-level supervision and incident command for firefighting operations.

3.2.3. Fire Management teams (4FPFN/4FPFF) serve as the Installation Fire Chief/Flight Chief and provides overall F&ES flight management. The teams establish and maintain F&ES capability and serve as the principle fire risk manager and advisor to senior leaders minimizing loss of life and property.

3.2.4. The 3-person Fire Joint Task Force/Headquarters Staff Management Team (4FPS4) team provides command and control (C2)-level staff assistance at a Numbered Air Force, MAJCOM Headquarters, or forward operating location (FOL).

3.2.5. **Attachment 9** lists the F&ES UTC Mission Capabilities (MISCAPS) for quick reference; however, when MAJCOM planners source contingency manpower and vehicle requirements use the most current UTCs found on the F&ES SharePoint at: <https://portal.afcec.hedc.af.mil/CX/fes/SitePages/Home.aspx>

3.3. Vehicles and Equipment. The SFO will direct the placement and staging of equipment and vehicles based on the operational needs of the environment. SFOs identify shortfalls in firefighting vehicles and equipment through an analysis of operations at the site. Where shortages exist, request for release of assets from War Reserve Materials (WRM). Vehicles may be leased with adequate lead time; when lead time is not available, vehicles may be tasked from home station fleets and backfilled with leased vehicles as soon as possible. Additional vehicles and support equipment may be needed at any stage of a conflict. Note: Functional expertise is available from the Air Force Civil Engineer Center (AFCEC) Reachback Center at: DSN: 523-

6995; Commercial: (850) 283-6995, and Tyndall AFB Command Post: DSN: 523-2155, Commercial: (850) 283-2155.

3.3.1. **Table 3.1** lists the required core set of vehicles to provide F&ES flights the capability to protect Air Force people, property and missions;

Table 3.1. FES Core Vehicles.

Vehicle Type	Vehicle
ARFF - Provides combinations needed to deliver the required quantity of agent from Table 3.2.	P-19 (1,000 gallons) P-23 (3,300) TI-3000 (3,000) Striker (1,500 gallons) Striker (3,000 gallons) P-24 (500 gallons)
Rescue	P-28 P-30 P-32
Structural Pumper	P-22 P-24
Water Tender	P-18 P-26
C2	4x4 Carry All
Support	1 Ton W/Lift

3.3.2. During wartime aircraft rescue and fire fighting (ARFF) vehicle requirements vary according to the size of aircraft assigned to the installation or the size of aircraft at the installation on the ground more than 274 days. **Table 3.2** indicates the ideal core set of vehicles and personnel UTCs required for fire ground operations. **Note:** **Table 3.2** applies to wartime operations only. For determining manpower and equipment requirements for all other contingencies, refer to AFPAM 32-2004.

Table 3.2. Aircraft Category Matrix.

Aircraft Type		Optimum Level of Service		Reduced Level of Service		Critical Level of Service		Inadequate Level of Service	
Aircraft	AF Vehicle Set	OLS - Firefighters	OLS - Gallons Q1+Q2+Q3	RLS - Firefighters	RLS -Gallons Q1+Q2	CLS - Firefighters	CLS - Gallons Q1	ILS - Firefighters	ILS - Gallons
A-10, C-21, F-15, F-16, F-22, F-35, F-117, T-37B, BQM-34, MQ-1A/B, T-38, AT-38, MQM- 107, T-6A, UV-18, QF-4, CV-22, UH-1N, C-38A, T-1, RQ-4, and C-12	1	14	2,500 - 1,340	13 - 8	1,339 - 513	7	512 - 325	6 or below	324
C-20	2	14	4,000 - 2,760	13 - 8	2,759 - 1,316	7	1,315 - 752	6 or below	751
C-9, C-22, C-32, C-37, C-40, C-130, E-3, E-8, T-43, MH-53 and RC-135	3	14	5,000 - 4,880	13 - 8	4,879 - 3,027	7	3,026 - 1,322	6 or below	1,321

B-1, B-2, B-52, C-17, KC-46 and KC-135	4	16	8,000 - 7,780	15 - 8	7,779 - 4,364	7	4,363 - 1,732	6 or below	1,731
E-4 (747), KC-10 and VC-25	5	17	10,000 - 9,570	16 - 8	9,569 - 6,292	7	6,291 - 2,330	6 or below	2,329
C-5	6	18	13,000 - 12,626	17 - 8	12,625 - 7,508	7	7,507 - 2,589	6 or below	2,588
* Firefighter numbers are on a per shift basis* Firefighter numbers are on a per shift basis * Below Optimum Level of Service – Aircrew Awareness (NOTAM) * Below Reduced Level of Service – Mission Commander or OG/CC approval * At or Below Critical Level of Service – Waiver approval as specified in AFPAM 32-2004									

3.3.3. For unique situations such as AF installations without assigned aircraft, installations where only rotary wing or unmanned aircraft are assigned, or large installations that require more than one fire station to meet emergency response time standards, consult the appropriate AOR fire chief for assistance.

3.4. Risk Management. Risk requires a subjective assessment of the probability that an F&ES emergency event will occur, and the expected severity of such an event. The probability factor relies heavily on historic emergency response data to predict future events. But for contingency operations, historical data is not available and assumptions are made on probability and severity in accordance with AFI 90-802, *Risk Management*, and AFPAM 90-803, *Risk Management (RM) Guidelines and Tools*.

3.4.1. Risk management (RM) primarily involves allocating resources according to the risk. Normally, resources are allocated according to the most probable time of day and day of the week that a fire emergency event will occur, from historic fire response data. This data may not be available at contingency locations. Consequently, the assumption during initial operations is that the risk is static and the same level of capability is maintained continuously. This assumption is for the first 120 days of operation then response data is assessed to determine if existing capability is still appropriate

3.4.2. Probability. Anecdotal information indicates that fire emergency events are more probable during contingencies due to the intensity of aircraft operations, temporary construction and the potential for enemy actions (such as aircraft battle damage).

3.4.3. Severity. The severity of fire emergency events is expected to be greater than for home stations due to the use of combustible materials in temporary construction, temporary wiring, and the lack of an adequate water supply.

Chapter 4

INSTALLATION FIREFIGHTING PLAN

4.1. Introduction. This chapter outlines tactics, techniques, and procedures (TTPs), and generic guidelines to enhance the survivability of firefighters, vehicles, equipment and resources during contingencies. Provided is an overview of the F&ES functions and responsibilities in the contingency environment. In the absence of formal training and lesson plans, this section can be used to present training.

4.2. Planning Period. Upon arrival, the installation fire chief will create or review plans and execute training and actions required to implement those plans. Deployed firefighters take the following actions immediately upon arrival:

- 4.2.1. Establish fire emergency response posture.
- 4.2.2. Establish fire prevention, force protection and firefighter safety programs.
- 4.2.3. Work with emergency managers to determine response priorities.
- 4.2.4. Communicate risk and capability issues to the installation commander. For more information regarding reporting level of service capability see AFI 32-2001.
- 4.2.5. Determine and coordinate response capability available in the Readiness & Emergency Management flight. EM personnel may have HazMat response capability (training and equipment) that can help during these types of response.

4.3. Chain of Command. The fire chief establishes the internal chain of command, determine the installation's chain of command and disseminate the information to all firefighters. The Functional Chain of Command is dictated by the fire chief's geographic AOR, functional area reporting to the appropriate MAJCOM. For Joint Task Force (JTF) operations, operational control (OPCON) will be assumed by the JTF Commander. Administrative Control (ADCON) will be retained by the designated USAF functional manager.

4.4. Intelligence. Obtain current intelligence threat assessments of potential adversary's ability and intent to attack the installation, including the use of WMD. Accurate information enables fire chiefs to tailor defensive preplanning and TTPs to mitigate the consequences of an attack.

4.5. Firefighter Safety and Health. To the maximum extent possible, *National Fire Protection Association 1500* applies during wartime and contingency operations. When compliance is not possible, RM processes are used to deviate from NFPA requirements. Everything possible should be done to protect firefighters but mission comes first, which may require doing operations during war that would not be done when at peace. However, operations or tasks that cannot be performed safely will not be undertaken.

4.6. Long Term Planning. When intelligence indicates the deployment may become "steady state," the fire chief should begin long term planning after initial establishment of the installation. This requires the fire chief to evaluate the resources in place to determine if they meet established standards. If additional resources are required, plans to fix shortfalls are communicated to leadership. Plan to improve facilities and obtain proper manpower, vehicles, and equipment for the fire station. Consider water distribution systems, utilities, systems, command and control facilities, etc.

4.7. Plans. Plans include, but are not limited to, installation support, mobilization, contingency response, fire prevention, training, and pre-fire plans.

4.7.1. Conducting local training is and should be aligned with the Air Force F&ES Training Plan to ensure career field continuity. Existing lesson plans may be utilized and new lesson plans developed as necessary.

4.7.2. To the greatest extent possible, establish dispersal locations and obtain shelter assets. Place assets indoors and utilize natural covering (ditches, trees, hillsides, trenches, etc.) as much as possible. All dispersal sites will be splinter protected and hardened as dictated by the threat. Use contamination control procedures and provide appropriate levels of contamination avoidance measures on these locations (see [Attachment 2](#)).

4.7.3. If the threat dictates, harden and splinter-protect all non-dispersed fire assets, including the ECC and communication network as required. Do not overlook supplies, station generators, and fuel containment dikes.

4.7.4. Conduct pre-fire planning and train on mission assigned aircraft, priority facilities, and common transient aircraft as soon as possible.

4.7.5. Establish fire prevention, reporting, education and safety programs.

4.7.6. Train facility occupants on fire extinguisher operations to enable quick intervention for fires in the initial stages.

4.7.7. Survey water supplies for emergency use. Include both on and off installation locations to include swimming pools, lakes, rivers, towers, tankers, pumps, wells, and basic expeditionary airfield resources mobile water distribution systems. Construct expedient access routes made of dirt or gravel and install dry hydrants and pumps as necessary to expedite re-supply operations.

4.7.8. Coordinate with POL personnel to ensure drainage, dikes and holding areas are in place. Dikes should hold 1.5 times the container's capacity. Survey possible fuel holding or tank drainage diversion areas where spilled fuel can be burned off. Identify fuel transfer possibilities and determine if AFFF inventories are adequate for the amount of fuel stored.

4.7.9. Inventory all firefighting agents and equipment; request high priority fills for shortfalls through local supply channels and the contracting officer.

4.8. Attack Preparation Period. The following actions will be taken:

4.8.1. Maintain accountability of all personnel.

4.8.2. Establish a recall roster and system to accomplish the recall.

4.8.3. The SFO initiates appropriate checklists (see [Attachments 2](#) thru 8).

4.8.4. Define what assets are available and determine what resources are needed to support the mission while meeting appropriate Air Force standards. Initiate shortfall requests through appropriate channels. Additional firefighting agents, clothing, equipment and supplies may be procured through supply channels (establish good working relationships with Contracting and Finance).

4.8.5. When the threat dictates, firefighters will be issued chemical warfare ensemble and nerve agent antidote based on the associated threat conditions. Firefighters should be prepared to utilize the J-FIRE ensemble.

4.8.6. Issue weapons as threat conditions dictate. Use selective arming as necessary.

4.8.7. Initiate dispersal plan as threat conditions warrant.

4.8.7.1. Disperse support assets (tools/equipment, emergency water storage [EWS], mobile air compressor, etc.) and implement physical/chemical contamination avoidance actions to maximize survivability.

4.8.7.2. Disperse vehicles and agents (see [Attachment 2](#)). Correct deficiencies on vehicles/agent status.

4.8.7.3. Vehicles will remain sheltered as much as possible. Vehicles may relocate with the approval of the SFO.

4.8.8. Implement survivability measures to include contamination control for vehicles and equipment. Black out/tone-down/splinter and chemical contamination avoidance measures will be implemented for the following resources:

4.8.8.1. Fire Station (ECC network is a very important priority). Include radio antenna(s) and repeater(s) in the protection plan as applicable.

4.8.8.2. Dispersal sites and personnel bunkers.

4.8.8.3. EWS sites supplementing existing emergency water sources.

4.8.8.4. Agent/equipment dispersal.

4.8.9. Determine status/condition of installed fire suppression systems.

4.8.10. Identify communication services for major work centers (i.e. building location, and telephone numbers) (see [Table A8.4](#)).

4.8.11. Establish the ECC and Alternate ECC.

4.8.11.1. Establish ECC work shifts.

4.8.11.2. The SFO will:

4.8.11.2.1. Confirm and account for all firefighting resources prior to actual response.

4.8.11.2.2. Maintain overall firefighting, fire vehicle, and equipment status.

4.8.11.2.3. Receive installation control center directives and disseminate to firefighters.

4.8.11.2.4. Take necessary actions to reverse or limit any degradation to the F&ES mission.

4.8.11.2.5. Ensure incident response reporting procedures are in place.

4.8.11.3. The ECC will maintain up to date information on the following:

4.8.11.3.1. Fire vehicles by call sign, type, registration number, and status.

- 4.8.11.3.2. Dispersal points of all resources and crew accountability
- 4.8.11.3.3. Quantities and location of firefighting agents.
- 4.8.11.3.4. Installation map to chart blocked roads, craters, UXO's, CBRN zones, air base defense sectors, utility status, and fuel and ammo storage areas.
- 4.8.11.3.5. List of static water locations and approximate amounts available.
- 4.8.11.3.6. Logbook will be used to document significant events.
- 4.8.11.3.7. Installation priority listing.
- 4.8.11.4. The ECC communications network is critical to the success of the F&ES mission and recovery operations. Every attempt should be made to obtain the following communications devices:
 - 4.8.11.4.1. Primary and Secondary Crash line.
 - 4.8.11.4.2. Fire reporting lines.
 - 4.8.11.4.3. Direct Line or dedicated line to appropriate work centers (e.g., UCC).
 - 4.8.11.4.4. Administrative line (two or more is preferred).
 - 4.8.11.4.5. Portable radios/batteries/charger(s).
 - 4.8.11.4.6. Back-up generator with auto start and transfer capability.
- 4.8.11.5. The alternate ECC may be activated at any time. Checklists, reference material, supplies, and communications equipment should be maintained for this purpose.
- 4.8.11.6. Communication disruption/outages.
 - 4.8.11.6.1. If communication systems fail, the following may be implemented:
 - 4.8.11.6.1.1. Portables/mobile radios.
 - 4.8.11.6.1.2. Alternate frequency.
 - 4.8.11.6.1.3. Direct lines and runners.
 - 4.8.11.6.1.4. Cellular telephones.
 - 4.8.11.6.1.5. A complete list of telephone numbers will be maintained in the ECC and command vehicles.
 - 4.8.11.6.2. If an authentication matrix is used, see [Attachment 3](#).
- 4.8.12. Operations.
 - 4.8.12.1. Shift schedules will be determined by the SFO. Manpower authorizations are based on providing an Optimum Level of Service (OLS) in accordance with AFI 32-2001. However SFOs are not bound by this concept and may vary the work schedule(s) as the risk dictates. Some considerations are: Ops TEMPO, manning levels, weather conditions, wear of PPE in chemical environment, variations in risk, etc. It should be noted that the mission may require periods when firefighters will work for extended shifts. However, extended shifts should only be considered for limited periods when needed due to reduced manning levels and mission requirements. Working extended

shifts significantly increases risk to firefighter safety. For deployments over 90 days, work schedules should be adjusted to 72 hours per week where possible. Note: Crews will be rotated in a manner as to reduce their vulnerability to enemy attack.

4.8.12.2. The SFO should establish response priorities based on the installation's emergency management plans, manning/ equipment status and mission requirements. Consider things such as aircraft, structural, fuel spill, and munitions incidents.

4.8.12.3. As the threat escalates, firefighters may operate from dispersed locations.

4.8.12.3.1. Shift change will be as prescribed by the SFO and in accordance with local directives/operating instructions (OI).

4.8.12.3.2. Assistant Chiefs (A/C) will manage shift change.

4.8.12.3.3. All firefighters are informed of mission oriented protective posture (MOPP) level, threat condition and intelligence updates at shift change.

4.8.12.4. Crew Rotation.

4.8.12.4.1. Each firefighter will be assigned to a specific vehicle. At the beginning of each shift, firefighters will report to their assigned vehicle at the A/Cs direction.

4.8.12.4.2. Normally, shift change will occur in the fire station; however, during dispersed operations the SFO will rotate crews when safely possible.

4.8.12.4.3. Accountability for all crews and vehicle status will be accomplished by the SFO immediately following shift change.

4.8.12.5. If firefighters are unable to report to their pre-designated location due to hostile activity, they will assemble in an area designated by the SFO. Transportation to their assigned vehicle will be arranged by the SFO as situation permits.

4.8.12.6. Off duty personnel will report to their assigned billets for rest and recuperation. The senior member maintains accountability of all off-duty firefighters.

4.8.13. Responses and Standbys.

4.8.13.1. At heightened threat conditions, the SFO may need to coordinate all responses with the Emergency Operations Center (EOC).

4.8.13.2. Under SFO direction, the ECC will dispatch incidents using selective response procedures based on priority of asset.

4.8.14. Other Requirements.

4.8.14.1. Issue authentication matrix to each crew.

4.8.14.2. Secure personnel and departmental records and documentation in a protected shelter or area.

4.8.14.3. Arriving firefighters will receive necessary briefings and billeting during in-processing. An F&ES supervisor will be dispatched to the receiving area to ensure a smooth transition.

4.9. Attack Response Period. This is the time period during an attack or hostile activities that firefighting and rescue activities will be limited. Survivability is the main priority while mission sustainment is the primary objective.

4.9.1. Upon notification that an airfield attack is imminent, the ECC will alert dispersed fire crews. Crews should be attentive to indications of a change in alarm condition and report pertinent information to the ECC (e.g., observing personnel taking cover, changes in displayed flags, giant voice announcements, gunfire, bomb bursts, etc.). If differences in alarm conditions exist, take cover until the difference is resolved.

4.9.2. Personnel actions.

4.9.2.1. Firefighters are protected with the appropriate individual protective ensemble (IPE) according to current alarm conditions. They should be able to instantly cease any operation and take immediate cover in the event of an attack. Be alert to surprise and re-attack possibilities. Always be aware of the nearest personnel bunker.

4.9.2.1.1. Unless specifically directed by the SFO, do not perform any rescue/firefighting operations except immediate area self-aid and buddy care (SABC) while attack is occurring.

4.9.2.1.2. If away from dispersal site when an attack occurs, DO NOT attempt to return to the dispersal location. Stop and take appropriate cover where you are.

4.9.3. Personnel in vehicles not in splinter protected facilities will seek the best available protection in their area. If suspected chemical attack, firefighters should remain in vehicles and consider shutting down HVAC.

4.9.4. Communications will be kept to an absolute minimum during and immediately after attack. During the attack, firefighters should provide size, activity, location, uniform, time, and equipment (SALUTE) reports to the ECC.

4.10. Attack Recovery Period.

4.10.1. Dispersed crew actions.

4.10.1.1. Upon notification that an attack is over, fire crews will immediately account for crew members, perform SABC as required, perform a thorough UXO sweep, check for damage/contamination, and verify status/condition of assigned assets. Report status to the ECC once completed.

4.10.1.2. Note UXO locations.

4.10.1.2.1. Remain at least 300 feet from UXOs; do not transmit hand-held radios within 25 feet of UXOs or 100 feet for mobile radios.

4.10.1.2.2. Identify, mark, and report all UXOs to the ECC in accordance with AFTTP 3-4, Airman's Manual.

4.10.1.2.3. Make note of other UXO reports as this may alter pending response routes to future emergencies/incidents.

4.10.1.3. Note improvised explosive device (IED) locations. Withdraw all non-essential personnel in accordance with AFTTP 3-4. Personnel will be behind or under cover.

4.10.1.4. In accordance with Defense Explosives Safety Regulation (DESR) 6055.09_AFMAN 91-201, minimum withdrawal distances for IEDs are:

4.10.1.4.1. 4,452 feet if IED is a small item or box (up to 20 lbs).

4.10.1.4.2. 6,665 feet if IED is a barrel or car (up to 1,000 lbs).

4.10.1.4.3. 8,904 feet if IED is a van or truck (up to 10,000 lbs).

4.10.1.4.4. 10,500 feet if IED is larger than already described (up to 60,000 lbs).

4.10.1.4.5. Response agencies such as EOD may evaluate and recommend an adjustment to response distances to the IC. Withdrawal distances are for initial evacuation until command authorities and EOD personnel evaluate the incident.

4.10.1.5. Report personnel injuries/facility and asset damage.

4.10.1.6. Inspect/report M-8 and M-9 readings on vehicles and dispersed assets.

4.10.1.7. Conduct operational decontamination as required.

4.10.2. Firefighting Actions.

4.10.2.1. When directed, fire crews will proceed to the incident site.

4.10.2.2. Responding crews will report their observations to the ECC.

4.10.3. SFO actions.

4.10.3.1. The SFO/ECC will immediately announce alarm condition changes and initiate an after attack vehicle/equipment/personnel status check.

4.10.3.2. Mission sustainment and firefighter safety is the SFO's primary concern. It may not be possible to extinguish every fire and perform every rescue, prudent judgment on when and how to engage firefighting forces is paramount to the success of the mission. The SFO directs the allocations of firefighting resources in concert with command priorities and current mission sustainment and installation recovery operations. In the event of multiple responses, established priority lists and preplanning should dictate multiple response priorities. Decisions are usually made in relation to sortie generation and aircraft recovery, depending on current response capabilities/commitments.

4.10.3.3. The ECC will establish an effective flow of communications between the SFO, appropriate work centers, and firefighting crews.

4.10.3.4. The SFO exercises primary control of responding vehicles. Normally, the A/C will command the fire ground; however, crew chiefs may perform this function on multiple incidents. The following considerations govern what vehicles, if any, are dispatched to incidents:

4.10.3.4.1. Equipment/agent availability.

4.10.3.4.2. Alarm condition.

4.10.3.4.3. Access to incident.

4.10.3.4.4. Firefighting crew status.

4.10.3.4.5. Priority.

4.10.3.4.6. Physical security.

4.10.4. Responses.

4.10.4.1. The EOC director, through the SFO, approves responses before dispatch. Responding crews will not deviate from their assignment to render assistance at other incidents. They will however, report their observations to the ECC. Resource priorities are listed in the facility priority list; this is maintained in the ECC and as required by the SFO.

4.10.4.2. When necessary, use the authentication matrix prior to responding to validate all responses or orders (see [Attachment 3](#)).

4.10.4.3. If damages exceed firefighting capability, the SFO will recommend “Let Burn” to the EOC director. Firefighter safety is the first consideration.

4.10.4.4. Interior fire operations should only be attempted if there is high probability for successful fire stop to a mission essential asset or rescue.

4.10.4.5. Debris, UXOs and other hazards may hinder response. Make every attempt to stay on the hard surface. If possible, do not drive or walk through contaminated areas, puddles or vapors; find an alternate route. If leaving the hard surface becomes necessary, use spotters in front of the vehicle to sweep for UXOs

4.10.5. Re-attack actions.

4.10.5.1. The SFO considers ceasing all operations that are not mission essential.

4.10.5.2. Crews should evaluate the location/status of available cover at every incident site.

4.10.5.3. At the conclusion of the re-attack, revert to attack recovery actions.

4.10.6. Communications.

4.10.6.1. Plans should be in place in the event the ECC is destroyed.

4.10.6.2. In the event the primary ECC is inoperable, the ECC operator will relocate to the alternate ECC.

4.10.6.3. If all communication channels are jammed or inoperative for any reason, communications between firefighting units will be by any means available (i.e., portables/mobile radios, alternate frequency, direct lines and runners, cellular telephones, public address systems, etc.).

4.10.6.4. A verification matrix will be distributed to each vehicle to verify information passed over the radio net. This matrix will be changed if compromise is suspected.

4.11. Administration and Logistics.

4.11.1. Vehicle and manpower calculations can be made utilizing the appropriate Air Force publications. Shortfalls are up channeled through the appropriate authority.

4.11.2. Manpower replacements are made through PERSCO and coordinated through the commander.

- 4.11.3. Firefighting equipment and agents may be obtained locally. Quickly identify shortfalls and request through local established procedures.
- 4.11.4. When appropriate add critical contractors to the entry access list i.e., HazMat clean up companies, fire truck maintenance, etc.
- 4.11.5. Consider mutual aid agreements when feasible.

Chapter 5

J-FIRE CONCEPT OF OPERATIONS

5.1. General. The purpose of this chapter is to establish procedures for utilizing the J-FIRE in CBRN environments.

5.1.1. J-FIRE is designed specifically for a wartime mission that allows firefighters to operate in CBRN environments, engage fires, effect rescue and transition between filtered air and supplied air.

5.1.2. LIMFACS. The firefighter is using two complete protective ensembles when using the J-FIRE, a firefighting gear and a battle dress overgarment. This causes increased physical stress for the firefighter. Rehabilitation after engaging in emergency response is necessary.

5.2. Concepts. Due to the extra stress placed on fire fighters under J-FIRE conditions it is highly recommended to limit responses to defensive operations as much as practical. The danger of exhausting fire fighters has a greater impact than losing an inconsequential facility or asset.

5.2.1. Exterior.

5.2.1.1. The main firefighting objective is to minimize the spread of fire to exposures, especially those that have a direct impact on the mission. Firefighting is normally accomplished using vehicle turrets or master streams.

5.2.1.2. Firefighters may assume MOPP 4 non-firefighting posture or MOPP 4 firefighting posture as determined by the SFO.

5.2.2. Interior (Immediately Dangerous to Life and Health (IDLH)).

5.2.2.1. Offensive interior operations will only be conducted when necessary to save mission critical assets or to rescue personnel and will only occur when directed by the SFO.

5.2.2.2. Prior to entry, the attack crew or incident commander (IC) will announce that entry is being made. At this time the ECC will acknowledge the entry and announce "Start the 5-Minute Tick." The 5-Minute Tick guidelines are as follows:

5.2.2.2.1. As soon as the attack crew makes entry, a 5-minute countdown will begin and the IC will maintain the count and notify the ECC. At the 5-minute mark the IC will ensure the interior crews are informed. At this time, communications between the attack crew and IC become critical. The IC requires a status report that can help him/her make a tactical decision as to whether or not to continue interior fire attack.

5.2.2.2.2. At the 10-minute mark, the ECC will again inform the IC and, in turn, the attack crew. The IC will also advise the interior crew to complete their task or withdraw at the 15-minute mark.

5.2.2.2.3. At the 15-minute mark, the attack crew may be ordered to withdraw from the facility for rehabilitation. If there is a delay in withdrawal, the IC will employ the rapid intervention team (RIT). The RIT can perform other fire ground duties as long as they do not hinder their primary objective of providing rescue for the attack team if required.

5.3. Procedures. Complete procedures for employing the J-FIRE are contained in *T.O. 14P3-1-181, Joint-Firefighter Integrated Response Ensemble (J- FIRE)*.

5.4. Work/Rest Cycles (WRC). WRCs will be enforced for firefighters. WRC will be at the direction of the IC. As rest cycles do not exclude firefighting activities, priority responses are still likely to be mounting. However, the IC considers the WRC when deciding attack modes and fire ground tasks. Note: Refer to [Chapter 8](#) for further guidance.

Chapter 6

CONTAMINATION AVOIDANCE AND DECONTAMINATION

6.1. General. This chapter establishes procedures for detecting contamination and subsequent decontamination. More detailed information can be found in *AFMAN 10-2503 – Operations in a Chemical, Biological, Radiological and Nuclear (CRBN) Environment*

6.2. Detection.

6.2.1. When directed by the EOC Director or CE Commander, all personnel, vehicles, facilities, shelters and equipment will have M-8 paper/M-9 tape appropriately applied.

6.2.2. All personnel will carry M-8 paper for random sampling of specific items when necessary.

6.2.3. Notify the ECC when contamination is evident. After reporting, accomplish expedient decon and wait for further direction from the leadership or the ECC.

6.3. Operational Decontamination.

6.3.1. All dispersal sites should have the materials listed in [Table 6.1](#) on-hand for decontamination.

Table 6.1. Suggested Decontamination Materials for Dispersal Sites.

Bucket	Bleach
Scrubbing brushes	Rags/sponges and/or wiping cloths
Plastic trash bags	Reactive Skin Decontamination Lotion
Bug sprayer	Tape and pens/markers for marking contaminated
Plastic bags	Rubber bands to seal self-contained breathing apparatus (SCBA) bottle connections

6.3.2. When contamination is suspected:

6.3.2.1. Report M-8 paper/M-9 tape readings to the ECC. Decontamination efforts should be limited to those actions necessary to meet mission requirements. Always minimize the risk of exposure and contact hazard to personnel and equipment.

6.3.2.2. When directed, contaminated personnel should report to a CCA for decontamination.

6.3.2.3. For minor contamination, spot decontamination procedures should be accomplished. Contaminated material should be placed in plastic bags for appropriate disposal at predetermined unit contaminated waste collection points.

6.3.2.4. For gross contamination, use bleach and water solution to decontaminate.

6.4. Barrier Material.

6.4.1. Calculate how much barrier material will be required to protect critical assets from chemical contamination (e.g. repellent plastic sheets, canvas, tarpaulins, etc.).

6.4.2. Cover critical assets when directed by leadership in accordance with procedures listed in AFTTP 3-4 and follow local procedures after a chemical attack.

6.4.3. Chemically Contaminated Object Rule. (CCOR). CCOR applies when chemical contamination is liquid in nature (e.g. this special handling procedure will not be necessary past the point of the hazard duration of the major terrain surface when the resource has been exposed only to agents in vapor or dusty form). This rule applies to assets that were not protected by a barrier material and therefore pose a percutaneous and/or vapor hazard.

6.4.4. In relation to the CCOR, objects are considered either small or large and hazard distances directly correlate to the size of the object. For all intents and purposes, firefighters should be aware that a large object encompasses resources that have more than 10 square meters of metal and/or glass surfaces. Examples include 44-passenger buses, fuel trucks, P-19 fire trucks, and all aircraft. Based on the size of the object, the hazard distances will be different.

Table 6.2. Simplified CCOR Guidelines.

Time from Attack	Small Object	Large Object
0-1 Hour	MOPP 4 in all Zones	
1-3 Hours	MOPP 4 within <10 feet	MOPP 4 within identified Zone (s)
3-24 Hours		MOPP 4 within <50 feet

Chapter 7

DISPERSAL SITE PROCEDURES

7.1. General. Dispersal management is a means of physically tracking and protecting assets at dispersal sites.

7.2. Dispersal Site Procedures.

7.2.1. The oncoming shift crew will ensure items are inventoried at shift change. Annotate results and pass the information to the ECC.

7.2.2. Arrange resources to enhance their accessibility in shelters.

7.2.3. Dispersal sites should not be within 300 feet of a priority facility.

7.2.4. Terrain and prevailing winds should be considered when hardening/splinter protecting.

7.3. General Considerations.

7.3.1. Only one Aircraft Rescue Firefighting (ARFF) or structural vehicle should be dispersed to the same location. Tone down and properly mark all vehicles for chemical detection and avoidance.

7.3.2. Separate vehicles housed in the station as much as possible.

7.3.3. Arrange dispersal points so that not more than two sites are in a straight target line.

7.3.4. Disperse one ARFF vehicle so that it has a view of the active runway.

7.3.5. Firefighters will ensure vehicles and equipment are protected from direct attack. Each vehicle will be equipped with a first aid kit, UXO/contamination marking kit and an operational decontamination kit.

7.3.6. Contamination avoidance techniques will be utilized. All assets will be splinter protected, covered in plastic and marked with chemical detection material.

Chapter 8

HEAT EXHAUSTION AND WORK/REST CYCLES

8.1. Introduction. This section establishes guidance for making decisions on firefighter WRCs while operating in J-FIRE ensembles. Successfully functioning in a contingency environment depends on understanding the factors contributing to heat stress, knowing and implementing the preventive measures and maintaining constant observation of personnel for risk factors and signs of heat illness. Hot and/or humid environments severely exacerbate heat stress and lead to extreme heat exhaustion for firefighting crews who are performing emergency operations.

8.2. Responsibilities. All personnel will become familiar with the provisions of this section. All personnel should drink as much as possible and stay hydrated, during all MOPP conditions. It is important to reinforce that water alone is not sufficient at “hydrating” firefighting crews. Balanced electrolyte consumption (from both electrolyte based powders/drinks and consumption of Meals Ready to Eat (MRE), Unitized Group Rations (UGR), and other food sources [natural salts]) is essential to the nutritional needs of firefighters operating in a CBRNE environment. Beware of existing climatic conditions and prepare and react accordingly. The SFO can alter these procedures if necessary.

8.2.1. SFO. The SFO will consider the circumstances of each incident and make adequate provisions early in the incident for a WRC, or rest and rehabilitation, for all personnel operating at the scene.

8.2.2. Crew Chiefs. All crew chiefs will maintain awareness of the condition of each member operating within their span of control and ensure adequate steps are taken to provide for each member’s safety and health.

8.2.3. Firefighters. All firefighters should remain aware of the health and safety of other crew members.

8.3. Terms.

8.3.1. Dehydration. Following the loss of sweat, water should be consumed to replace the body’s loss of fluids. If the body fluid lost through sweating is not replaced, dehydration will follow. Whenever consumption of water fails to keep up with output of sweat, the body will become progressively dehydrated. Thirst is a poor indicator of dehydration. Dehydration is possible without any signs of thirst; mental and physical performance can degrade so slowly that individuals may not recognize the problem in themselves or others.

8.3.2. Heat Exhaustion. This condition appears as marked fatigue and weakness, nausea, dizziness, fainting, vomiting, elevated body temperature, and disorientation. Factors that compound heat exhaustion are lack of acclimatization and failure to replace water and electrolytes lost in sweat.

8.3.3. Heat Stroke. This is a medical emergency that is caused when the body stops sweating, leading to loss of evaporative cooling and a dangerous rise in core temperature. It can include all of the signs and symptoms of heat exhaustion, but is more severe and can be fatal. One heat casualty is usually followed by others.

8.3.4. IPE. Insulating effects of IPE occur even when ambient temperature and humidity are relatively low. Variations to MOPP levels, such as opening or removing the jacket, or removing some or all of the firefighter proximity clothing, will reduce barriers to body cooling. Therefore, the SFO conducts risk analyses to balance performing mission critical tasks, casualties due to actual CBRN threat, and degraded performance due to heat stress, dehydration, and bulkiness of the protective equipment.

8.3.5. **Acclimatization.** Unacclimated personnel are those who have not built up a tolerance for working in a hot environment. They will experience degraded mental and physical performance and be highly susceptible to heat illness. Persons who are poorly conditioned become fatigued more easily and do not adjust to working in excessive climatic conditions as quickly as those in good physical condition.

8.4. Heat Illness Prevention.

8.4.1. The key to preventing heat illness and sustaining performance is knowledge of preventive measures. Utilize the heat stress index tables in **Table 8.1** for general guidance. Be aware these tables require temperature/humidity level input from a competent authority such as the weather flight for complete accuracy.

Table 8.1. Heat Stress Index.

		RELATIVE HUMIDITY								
TEMPERATURE DEGREES F.		10%	20%	30%	40%	50%	60%	70%	80%	90%
	104	98	104	110	120	132				
	102	97	101	108	117	125				
	100	95	99	105	110	120	132			
	98	93	97	101	106	110	125			
	96	91	95	98	104	108	120	128		
	94	89	93	95	100	105	111	122		
	92	87	90	92	96	100	106	115	122	
	90	85	88	90	92	96	100	106	114	122
	88	82	86	87	89	93	95	100	106	115
	86	80	84	85	87	90	92	96	100	109
	84	78	81	83	85	86	89	91	95	99
	82	77	79	80	81	84	86	89	91	95
	80	75	77	78	79	81	83	85	86	89
	78	72	75	77	78	79	80	81	83	85
	76	70	72	75	76	77	77	77	78	79
74	68	70	73	74	75	75	75	76	77	
Note: Add 10° F. when protective clothing is worn and additional 10 ° F. when in direct sunlight										
HUMITURE DEG F		DANGER CATEGORY		INJURY THREAT						
BELOW 60		NONE		Little or no danger under normal circumstances						
80 – 90		CAUTION		Fatigue possible if exposure is prolonged and there is physical activity						
90 – 105		EXTREME CAUTION		Heat cramps and heat exhaustion possible if exposure is prolonged and there is physical activity						

105 – 130	DANGER	Heat cramps or exhaustion likely, heat stroke possible if exposure is prolonged and there is physical activity
ABOVE 130	EXTREME DANGER	Heat stroke imminent!

8.4.2. Water is critical for maintaining health and individual performance, since the human body is highly dependent on water to cool itself in a hot environment. All water consumed is from a medically approved source to prevent waterborne illnesses. All personnel should ensure there is an adequate supply of drinking water protected from biological and chemical fallout at each dispersal site. Canteens are to be kept full; ensure individuals are trained on the proper techniques to fill canteens in a contaminated environment. It is important to reinforce that water alone is not sufficient at “hydrating” firefighting crews. Balanced electrolyte consumption (from both electrolyte based powders/drinks and consumption of MREs, UGRs and other food sources [natural salts]) is essential to the nutritional needs of firefighters operating in CBRN conditions.

8.4.3. Increased sweating requires additional water consumption. As mentioned earlier, thirst alone is not a good indicator of adequate fluid intake. Personnel always need to drink before they feel thirsty. They drink small amounts of water frequently rather than drink large amounts occasionally. When IPE is worn in an extreme heat environment, water requirements are more than 20 quarts per day.

8.5. WRC.

8.5.1. To prevent a dangerous increase in body temperature, heat production is minimized by reducing work pace and increasing rest periods. In very hot and humid conditions, reducing the duration of physical activity may be the only way to prevent dangerous increases in body temperature. WRC recommendations, as advised by AFTTP 3- 4, are provided in [Table 8.2](#). This table is to be used by the SFO when determining fire crew WRCs.

8.5.2. Allow personnel to seek relief periodically from potentially dangerous heat stress situations by resting in shaded or air conditioned areas (vehicle cabs), and by removing IPE and firefighter PPE. Rotating dispersed crews to the station for rest/rehabilitation will assist in affecting this means.

8.5.3. Even moderate exertion in MOPP gear can cause heat illness at lower Wet Bulb Globe Temperature (WBGT) indices. When IPE is worn, add 10° F to the measured WBGT index.

8.5.4. Avoid resting directly on the hot ground. The ground heated by the sun can be 30-45 degrees hotter than the air.

Table 8.2. WRC Guidelines.

<i>WBGT Index</i>	<i>Water Intake (qts per hour)</i>	<i>Work/Rest Cycle</i>
78 – 82	At least ½	Continuous
82 – 85	At least ½ - 1	5/10
86 – 88	At least 1	45/15

89 – 90	At least 1 ½	30\30
Above 90	At least 2	20\40

Notes:

1. WRC recommendations are based on personnel who are fully acclimatized, optimally conditioned, hydrated and rested.
2. If IPE/firefighter PPE is worn, add 10 deg F to the WBGT index.
3. Water intake shown supports WRCs. When WRCs cannot be applied due to mission critical requirements such as firefighting in support of sortie generation, add 1/2 to 1 more quarts per hour to values shown in table.
4. This guidance is not a substitute for common sense and experience; the appearance of heat casualties is a sure sign that the safe limit of work time has been exceeded and/or water consumption is inadequate.

Chapter 9

FIRE RESPONSE DURING ALARM CONDITIONS

9.1. General. This section establishes procedures for actions to be taken under alarm conditions of yellow, red/blue and black. F&ES actions when under attack require determining, within certain guidelines, the amount of firefighters and apparatus to respond to incidents. This section should be used to supplement locally developed checklists.

9.2. Alarm Yellow.

9.2.1. Implement MOPP as directed by the installation commander.

9.2.2. Conduct fire response as directed by the SFO.

9.3. Alarm Red/Blue.

9.3.1. Implement MOPP 4 or as directed by the installation commander.

9.3.2. If Alarm Red or Blue is declared, it is imperative that firefighters know what type of attack is occurring (e.g., tactical ballistic missile, aircraft, or ground forces). The ECC or SFO notifies fire crews by radio of the type of attack. Firefighter actions based on the type of attack are as follows:

9.3.2.1. Tactical Ballistic Missile (TBM). Firefighters dispersed around the base will remain in their fire vehicles and assume directed MOPP. Consider shutting down HVAC in vehicle to prevent vapors from being ingested into the system. This action is based upon the concept that a TBM is normally not guided and normally has no predetermined target prior to launch. If a hardened facility or overhead shelter for the vehicle is nearby, it should be utilized. Personnel outside their fire vehicle during attack and unable to expeditiously return to their vehicle should seek shelter in the nearest hardened facility or overhead cover. Avoid the following locations:

9.3.2.1.1. Within 500 feet of aircraft.

9.3.2.1.2. Within 1,000 feet of POL or munitions storage facilities.

9.3.2.2. Aircraft Attack. Firefighters dispersed around the base will immediately exit their fire vehicle, seek shelter in a pre-constructed personnel bunker or hardened facility, and assume the directed MOPP. This action is based upon the concept that attack aircraft have the ability to see targets on the ground. Avoid the following locations:

9.3.2.2.1. Inside/beneath fire trucks or any other vehicle.

9.3.2.2.2. Within 300 feet of a priority facility.

9.3.2.2.3. Within 500 feet of aircraft.

9.3.2.2.4. Within 1000 feet of POL or munitions storage facilities.

9.3.2.3. Ground Forces. Firefighters dispersed around the base will first determine where the ground forces attack is occurring in relation to their location, then provide a SALUTE report. Firefighters in close proximity to attack will either establish defensive fighting positions or leave the immediate area as soon as possible if it is safe to do so. Firefighters

not in the ground forces attack sector will monitor radio transmissions and be prepared to react if their sector becomes involved. Firefighting activities should not be conducted in the attack area until it is declared secure by security forces.

9.3.2.4. Unmanned Aircraft Systems (UAS). UAS vehicles are remote piloted aircraft that have become more weaponized, which could include explosive and CBRNE material. If a UAS is sighted, take cover and report observation to the ECC and/or BDOC with as much identification information about type, size, location, and direction it is heading. If the UAS lands or crashes, use extreme caution and treat site in the same manner as an IED using the UAS size to determine cordon size. (Use the 5-C method of reporting as outlined in the Airman's Manual).

9.3.3. Movement of F&ES vehicles during Alarm Red/Blue conditions will only be accomplished with direct authority of the SFO and EOC director. Unless directed, fire crews will remain in place during Alarm Red/Blue until told to proceed. Firefighters remain vigilant for any attack related threat or damage to themselves and the installation. Any such threat noted will be radioed to the SFO for broadcast to other firefighters (use the SALUTE method of reporting as outlined in the Airman's Manual).

9.4. Alarm Black.

9.4.1. Implement MOPP 4 or as directed by the installation commander.

9.4.2. Following the declaration of Alarm Black by the EOC, firefighters are required to take an array of actions. First and foremost is to ensure the crew is not injured or otherwise affected by the attack. After determining the status of the crew, firefighters will report their status to the ECC. A thorough sweep of the immediate dispersal site is imperative. Crews should concentrate on those areas that could jeopardize their response to emergencies or their safety. All vehicles moving during Alarm Black is coordinated and approved by the EOC director. Crews will not move their vehicle unless directed by the SFO.

9.4.3. When performing standby duty, firefighters should be prepared to react to any given wartime scenario in case an Alarm Black is declared. Concerns such as condition of response routes to the standby, existing UXO and hostilities in the standby area are addressed. Once on scene, full attention to the standby is paramount. Fire crews should be ready to react to any possible situations requiring their assistance. The following are two standby scenarios and actions to be taken during wartime standby situations.

9.4.3.1. There may be times when fire crews will have to perform standby while remaining at their dispersal location. Two examples of this situation are when there might be simultaneous standby requirements or when crews have been directed to remain in their dispersal location by the SFO. Fire crews will confirm the standby location and select the best possible response route based on current base situational reports of UXO, bomb craters and other response route factors. Crews should be prepared to respond in the appropriate MOPP condition and firefighting posture. Visual confirmation of standby from the dispersal site is most desired if possible. If this is not possible, crews will coordinate with maintenance operations control (MOC) through the ECC.

9.4.3.2. The most desirable location for firefighters to perform standby operations is as close to the area as possible with an unobstructed view of the area. Crews should be prepared to respond should anything happen during the standby. Firefighters should

locate an appropriate area to seek cover (e.g., hardened aircraft shelters or other appropriate “safe areas”) should re-attack occur during the standby. If no adequate cover is available, firefighters will remain in their vehicle during a TBM attack and will exit the vehicle for protection during an aircraft attack. Special Operations Forces (SOF) attacks will be dealt with in one of two ways: firefighters will either return fire to combat SOF or leave the immediate area as soon as possible.

9.4.3.3. Ops-tempo may increase to the point where fire resources may not be available to meet established fire protection standards. When this occurs, implement RM; consider optimum positioning of fire equipment, limiting aircraft maintenance or changing hours, etc.

9.4.3.4. SFO should utilize *T.O. 00-25-172, Ground Servicing of Aircraft and Static Grounding/Bonding*, for fire protection standby operation requirements.

9.5. Observing MOPP. Firefighters will not reduce MOPP level until validated and directed by the SFO.

Chapter 10

VEHICLE OPERATIONS

10.1. General. This chapter establishes procedures for F&ES vehicle operations.

10.2. Daily Maintenance.

10.2.1. Daily maintenance will be accomplished on each F&ES vehicle and recorded on the appropriate form immediately following shift change or as directed by the SFO.

10.2.2. Inspection completion and vehicle status will be provided to the ECC.

10.3. Agent Resupply.

10.3.1. If AFFF or dry chemical is used, notify the ECC for agent tracking.

10.3.2. Agent tanks will be topped off daily or as necessary.

10.4. Water Resupply.

10.4.1. If EWS tanks are used, notify the ECC for agent tracking.

10.4.2. Top off all EWS tanks when situation permits.

10.5. Safety.

10.5.1. Maintaining safe vehicle operation is of the utmost importance.

10.5.2. Observe posted speed limits and speed restrictions for runways, taxiways, and while operating around aircraft.

10.5.3. Only licensed and task qualified drivers as annotated on the AF Form 483, Certificate of Competency will be allowed to drive while wearing the protective mask.

10.5.4. Local policy is established for operating lights and sirens on emergency vehicles.

10.5.5. Extra caution and safety applies to driver operators while maneuvering in cantonment areas. These areas are massed with personnel and many times are poorly lit during nighttime hours. Local requirements may dictate the use of a ground guide to maneuver through these areas.

10.6. Efficiency. Conservation of fuel and agent should be strictly observed.

10.7. Vehicle Maintenance, Repair and Refueling.

10.7.1. Major discrepancies that effect the vehicle operation will be reported to the ECC immediately.

10.7.2. Where possible, fire truck maintenance will be dispatched to the vehicle's location. If F&ES mechanics are not available, submit a request for maintenance support. Firefighters should have knowledge of minor repairs.

10.7.3. Refueling will be accomplished at dispersal points when possible.

10.8. Vehicle Kits. All vehicles will maintain the following kits:

10.8.1. First Aid Kit.

10.8.2. SABC/TCCC Kit.

10.8.3. UXO/Contamination Marking Kit.

10.8.4. Decontamination Kit.

10.8.5. Installation CBRN map.

Chapter 11

EMERGENCY COMMUNICATION CENTER OPERATIONS

11.1. General. This chapter establishes procedures for operating the ECC. Due to the sensitive nature of the systems and information stored in the ECC, the ECC should be established in a facility that enables the user to have the ability to limit access to mission essential personnel only.

11.2. Personnel. Manpower for the ECC may not be available; this section may be manned by shift personnel.

11.3. Status Boards. A status board will be maintained with the following information as a minimum:

11.3.1. Personnel by name, rank, AFSC, and position.

11.3.2. Vehicle by registration number, call sign, assigned crew, and dispersed MGRS coordinates.

11.3.3. Available resources by location, type, quantity, (i.e., gallon/pound, etc.) and grid coordinates.

11.3.4. EWS systems by location and capacity.

11.4. Visual Aid Board. A visual aid board will be maintained with the following information as a minimum:

11.4.1. Current alarm condition and MOPP level.

11.4.2. Building priority listings.

11.4.3. Pertinent phone numbers.

11.4.4. Pertinent information (i.e., duress words, sign/countersign, chemical codes, and installation control center directives).

11.4.5. Munitions locations if applicable.

11.5. Maps. The following maps should be maintained and updated as required and the alternate ECC should be similarly equipped.

11.5.1. Installation MGRS map with CBRN zones and split MOPP sectors/zones.

11.5.2. Vehicle, personnel, and resource dispersal sites.

11.5.3. Buildings and airfield.

11.5.4. Roadways and bridges.

11.5.5. EWS systems.

11.5.6. Munitions/weapons storage locations.

11.6. Communication Equipment. The ECC, and if possible the alternate ECC, should be equipped with the following:

11.6.1. Land mobile radio with multi-channel capability is preferred.

11.6.2. Hard-line (i.e., field phone, etc.) with air traffic control tower, EOC, UCC, SFS, maintenance control, and other agencies deemed appropriate by the SFO.

11.6.3. Fire reporting phone lines (from key locations).

11.6.4. Public Address system that broadcasts to the fire station.

11.7. Log Book. The ECC operator should keep a daily logbook current with all pertinent information. The daily logbook in conjunction with checklists should be able to serve as a backup for status boards, visual aids, and charts in the event of ECC relocation.

Chapter 12

RADIO COMMUNICATION, PROCEDURES, AND DISCIPLINE

12.1. General. This chapter establishes procedures when utilizing radios as a means of communication. Radio communication procedures and discipline may be defined as the process of maintaining clear, decisive, open channels of communication with as little confusion and repetition as possible.

12.2. Transmissions.

12.2.1. Speak in plain language saying what you mean, i.e., unit responding, on location, in service, etc.

12.2.2. Vehicles may be assigned letter designation in accordance with their real world vehicle radio call sign (e.g., Crash 10 will become Charlie 10). Also, designators for A and B shift may be employed (e.g., Alpha or Bravo 10). Vehicles will use these letter designations as call signs. Personnel may be assigned letter designations also (e.g., Bravo-10; 1, 2, and 3). An alternative to this is to code name the vehicle (e.g., Jackpot) and designate the personnel as 1, 2, and 3 (Crew Chief, Driver/Operator, back-seater).

12.3. Authentication Matrix. Authentication matrix should be used to verify radio transmissions. All personnel should update their matrix as codes are used. For more information, see [Attachment 3](#).

12.4. Duress Signal.

12.4.1. Firefighters under duress should communicate the assigned duress words to the ECC followed by as much information as possible (i.e., location, and nature of problem, injuries, etc.). Firefighters will then wait for direction from ECC or SFO.

12.4.2. If a firefighter under duress is unable to orally transmit a duress message, a secondary means should be established.

12.5. Discipline. Radio transmissions are reserved for pertinent communications only. General conversation and chit-chat is avoided to keep vital channels open and prevent efforts to locate dispersed units through tracking devices.

Chapter 13

SELF-CONTAINED BREATHING APPARATUS AIR SUPPLY

13.1. General. This chapter establishes procedures for SCBA air supply operations.

13.2. Refilling.

13.2.1. SCBA cylinders will not be filled while potential CBRN contamination conditions exist.

13.2.2. SCBA cylinders will be filled by qualified personnel only. A bottle fill log will be used with annotations denoting bottle number, date filled and firefighter's printed name and signature.

13.3. Decontamination.

13.3.1. If M-8 or M-9 paper shows contamination, attempt to decontaminate the breathing air equipment cover before removing.

13.3.2. Dispose of the contaminated cover at an appropriate disposal site.

13.4. Breathing Air Re-servicing.

13.4.1. All cylinders requiring servicing are filled during attack preparation. Plastic caps/covers will be put on spare bottles to keep contaminants out.

13.4.2. Disperse as many spare bottles as possible with vehicles. The air filtration system and associated equipment will be stored in a suitable shelter and covered with plastic.

13.4.3. The air compressor intake valves and filters will be covered and taped closed. The air filtration system will be sealed in plastic. M8/M9 chemical detection paper will be affixed to the top and sides of air compressors to aid in identification and contamination avoidance.

13.4.4. Additional filter sets for the purification system will be stored in plastic bags.

13.4.5. SCBA re-servicing will not be conducted during an Alarm Red/Blue/Black condition where there is a potential chemical presence.

Chapter 14

INSTALLATION UTILITY OUTAGES

14.1. General. This chapter establishes procedures in the event of utility outages.

14.2. Water. When water services are interrupted, every effort should be made to conserve water. Out of service hydrants should be annotated on all maps. Crews should resupply vehicles as necessary utilizing existing EWS systems.

14.3. Sewage. When sewage service is interrupted, all personnel should make efforts to not over tax the waste treatment plant, or drains tied to the plant, by dumping excess water from firefighting operations or decontamination efforts into the system.

14.4. Telephone. When telephone services are interrupted, communication may be made by runner, radio or field phone/cell phone.

14.5. Gas. When gas service is interrupted, all units should be notified. In the event of a fire or gas leak, F&ES should make efforts to contain or terminate the fire or leak. It may become necessary to shut-off other facility utilities to prevent fire or damage.

14.6. Electrical. When electrical service is interrupted to the ECC, auxiliary power should be utilized. Consideration for finding an alternative electrical source to recharge batteries and portable devices should take immediate priority if the auxiliary power source fails (i.e., generator on vehicles).

14.7. Radio Service. It may become necessary to align vehicles in the field to act as repeaters for long distance transmissions. The ECC or SFO will manage this coordination on the scene.

Chapter 15

CONTINGENCY FIRE PREVENTION

15.1. General. This chapter describes unique fire prevention and inspection issues to consider when operating in a contingency environment.

15.2. Standards compliance. As with firefighter occupational safety and health and all aspects of fire and emergency services, our goal is to meet the same criteria at deployed locations as we do at home. However; this is not practical when operating at locations for short durations and using expedient construction methods. On the other hand once a location becomes “enduring;” Fire Chiefs should consider adhering to established criteria as outlined in DoDIs, AFIs, Unified Facility Criteria, Engineering Technical Letters, NFPA codes, and other relevant engineering and prevention documents.

15.3. Facility Plans Reviews. F&ES Flights will conduct plans reviews as required and coordinate with MAJCOM/AOR fire chief and engineering staff when needed.

15.4. Reference Material. Guidance for F&ES flights includes the NFPA Code online on the AF Portal and applicable sources listed in [Attachment 1](#).

WARREN D. BERRY, Lieutenant General, USAF
DCS/Logistics, Engineering, & Force Protection

Attachment 1**GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION*****References***

DODI 6055.06, *DOD Fire and Emergency Services (F&ES) Program*, 3 October 2019

DoDM 6055.06, *DOD Fire and Emergency Services Certification Program*, 22 January 2020

AFPD 10-2, *Readiness*, 6 November 2012

AFI 10-403, *Deployment Planning and Execution*, 17 April 2020

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AFI 90-802, *Risk Management*, 1 April 2019

AFMAN 10-2503, *Operations in a Chemical, Biological, and Nuclear Environment*, 12 May 2019

AFPAM 10-219, *Volume 3, Civil Engineer Contingency Response and Recovery Procedures*, 7 May 2015

AFPAM 90-803, *Risk Management Guidelines and Tools*, 11 February 2013

AFPAM 10-219, *Volume 5, Bare Base Conceptual Planning Guide*, 30 March 2012

AFPAM 32-2004, *Aircraft Fire Protection for Exercises and Contingency Response Operations*, 25 September 2014

AFTTP 3-4, *Airman's Manual*, 11 January 2019

DESR 6055.09_AFMAN 91-201, *Explosives Safety Standards*, 28 May 2020

ETL 09-4, *Fire Protection Engineering Criteria – Expeditionary and Force Projection Operational Theaters*

NFPA 1500, *Standard for Fire Department Occupational Safety, Health, and Wellness Program* 2018 Edition

T.O. 14P3-1-181, *Joint-Firefighter Integrated Response Ensemble (J-FIRE)*, 1 October 2009

T.O. 00-25-172, *Ground Servicing of Aircraft and Static Grounding/Bonding*, 6 September 2019

UFC 1-201-01, *Non-Permanent DoD Facilities in Support of Military Operations*, 1 January 2013

UFC 3-600-01, *Fire Protection Engineering for Facilities*, 12 August 2020

UFC 3-601-2, *Operation and Maintenance: Inspections, Testing, and Maintenance of Fire Protection Systems*.

UFC 1-201-01, *Non-Permanent DoD Facilities in Support of Military Operations*.

WMP-1, *Civil Engineer Supplement to the War and Mobilization Plan-1 ()* 17 April 2020 F&ES SharePoint, <https://portal.afcec.hedc.af.mil/CX/fes/SitePages/Home.aspx>

Adopted Forms

AF Form 847, *Recommendation for Change of Publication*

AF Form 483, *Certificate of Competency*

AF Form 1800, *Operator's Inspection Guide and Trouble Report*

SF 91, *Motor Vehicle Accident Report*

DD Form 518, *Accident Identification Card*

Abbreviations and Acronyms

A/C—Assistant Chief

AFSC—Air Force Specialty Code

AOR—Area of Responsibility

AFTTP—Air Force Tactics, Techniques, and Procedures

ARFF—Aircraft Rescue and Fire Fighting

CBRN—Chemical, Biological, Radiological, Nuclear, and Explosive Materials

CC—Commander

CCA—Contamination Control Area or Chemical Contamination Avoidance

CE—Civil Engineer

DOD—Department of Defense

ECC—Emergency Communications Center

ECS—Expeditionary Combat Support

EN—En Route

EOC—Emergency Operations Center

EOD—Explosive Ordnance Disposal

EOR—Explosive Ordnance Reconnaissance

ERC—Emergency Response Capability

EWS—Emergency Water Storage

FAD—Force Activity Designator

F&ES—Fire and Emergency Services

FPCON—Force Protection Condition

HazMat—Hazardous Material

IAW—In accordance with

IC—Incident Commander

ICCD—Installation Control Center Directive

IED—Improvised Explosive Device
IDLH—Immediately Dangerous to Life and Health
IPE—Individual Protective Equipment
J-FIRE—Joint Firefighter’s Integrated Response Ensemble
LIMFACS—Limiting Factors
MCO—Major Combat Operations
MISCAPS—Mission Capabilities
MOC—Maintenance Operations Center
MOPP—Mission- Oriented Protective Posture
NFPA—National Fire Protection Association
OLS—Optimum Level of Service
PERSCO—Personnel Support for Contingency Operations
POL—Petroleum, Oil, and Lubricants
PPE—Personal Protective Equipment
RIT—Rapid Intervention Team
RM—Risk Management
SABC—Self-Aid and Buddy Care
SCBA—Self-Contained Breathing Apparatus
SFO—Senior Fire Officer
SOF—Special Operations Forces
TBM—Tactical Ballistic Missile
TTP—Tactics, Techniques, and Procedures
UCC—Unit Control Center
UTC—Unit Type Code
UXO—Unexploded Ordnance
WBGT—Water Bulb Globe Temperature
WMD—Weapons of Mass Destruction
WRC—Work/Rest Cycle

Attachment 2

SAMPLE DISPERSAL LOCATION CHECKLISTS

Table A2.1. Fire Dept. Dispersal Location & Manpower Assignments.

<i>Asset</i>	<i>Personnel</i>		<i>Total</i>	<i>Sectors/ Zones</i>	<i>Location</i>	<i>MGRS</i>
	<i>Day</i>	<i>Night</i>				
SFO						
FCC						
Operator						
A/C						
Station Chief						
MCV # 1						
MCV # 2						
MCV # 3						
Rescue						
Pumper						
Tanker (optional)						
Security/ Shelter Management						
TOTAL						
Note: The SFO may direct different manpower assignments and different dispersal locations						

Table A2.2. Follow-on Forces or Alternate Vehicle Dispersal Sites.

<i>Asset</i>	<i>Personnel</i>		<i>Total</i>	<i>Sectors/ Zones</i>	<i>Geographic Location</i>	<i>MGRS</i>
	<i>Day</i>	<i>Night</i>				
MCV # 4						
MCV # 5						
Pumper						
Command Van						
HAZMAT Trailer						
Flat Bed P/U						
Hose/Foam Cart	N/A	N/A	N/A			
Mobile Air Compressor	N/A	N/A	N/A			
Support Vehicle	N/A	N/A	N/A			

Note:

1. Once vehicles reach their dispersal sites, a crew status check is to be accomplished. When status of crews is reported, the ECC updates the appropriate work centers. Also, dispersal sites (tools and equipment, EWS, etc.) should be inspected/annotated for damage/contamination after every at- tack. This should be done at the first available opportunity and coordinated by the A/C.
2. Vehicles should be maintained in the station and simulated dispersed for real-world commitments.

Attachment 3

AUTHENTICATION MATRIX

Table A3.1. Sample Authentication Matrix.

	<i>A</i>	<i>B</i>	<i>C</i>	<i>D</i>	<i>E</i>	<i>F</i>	<i>G</i>	<i>H</i>	<i>I</i>	<i>J</i>	<i>K</i>	<i>L</i>	<i>M</i>
1	28	81	1	79	9	92	10	97	96	7	71	40	19
2	53	22	99	13	22	70	80	1	11	21	76	17	57
3	4	87	17	69	38	2	23	27	44	49	12	50	14
4	42	18	32	26	58	93	74	3	78	25	34	24	6
5	29	73	18	46	82	15	26	15	5	66	56	11	13
6	77	95	36	19	91	63	45	55	61	48	27	37	75
7	10	62	59	88	2	6	68	20	5	28	23	29	34
8	65	16	32	98	54	12	39	20	83	9	67	90	30
9	52	16	85	8	94	47	31	35	4	89	30	3	43
10	33	41	25	8	72	7	21	33	60	84	31	XX X	14

Note: When authentication is required, sending members will call out a phonetic letter and a number. Receiving members will cross-reference the matrix to find the correct code to authenticate the communication.

Note: Matrix should be new and generated prior to deployment.

Note: All members must delete codes as they are used.

Attachment 4

SAMPLE TENT CITY FIRE SAFETY PLANNING AND INSPECTION CHECKLIST

Table A4.1. Fire Safety Checklist.

<i>Planning Task</i>	<i>Inspection Item</i>
1. Tent City Layout	a. Dispersed layout _____ 12 ft. between tents in a row (6-7 tents per row) _____ 60 ft. between tent rows (4 rows per group) _____ 150 ft. between tent groups (25-27 tents per group) b. Non-dispersed layout _____ 12 ft. between tents in a row (6-7 tents per row) _____ 30 ft. between tent rows (4 rows per group) _____ 60 ft. between tent groups (25-27 per group) c. Facility Group Areas. _____ Refer to dispersal distance matrix (AFPAM 10-219V5) d. Marking Tents/Facilities _____ Ensure tents/facilities and rows are named, numbered, and placarded e. Vehicle Parking. _____ Vehicle parking should not be allowed within tent city. _____ Parking should be in designated areas only f. Separation Distances _____ Refer to recommended distances between functional & individual facilities (AFPAM 10-219V5)
2. Tent City Fire Inspections	_____ a. Conduct frequent inspections _____ b. Include flight supervisors _____ c. Invite ground safety personnel
3. General inspection items	_____ a. Electrical wiring, serviceability, and installation _____ b. Check for unapproved extension cords or lighting _____ c. Ensure max 60-watt light bulbs in tent lighting to prevent pyrolysis of tent material and possible fire _____ d. Ensure AC/heating units, generators, and similar equipment is positioned far enough away from tents to maximize safety _____ e. Electrical equipment is properly grounded _____ f. Proper aisle space inside tents

4. Special Hazard Areas	<p>a. Field kitchens</p> <p>_____ Burner refueling located 50 ft. from tents/facilities and lighting/generator equipment; fire extinguisher is readily available</p> <p>_____ No accumulation of grease on tent surfaces</p> <p>_____ Grease disposal areas at least 8 ft. from tents</p> <p>_____ A minimum of 2 fire extinguishers with rating of 2A: 40 BC provided for cooking areas; extinguishers located at entrances to cooking areas</p> <p>_____ Electrical distribution panel located at least 6 ft. from kitchen tent and of protected connector type</p> <p>_____ Electrical generators positioned at least 15 ft. from tent walls; fuel tanks positioned remote as possible from generators & diked with fuel lines protected</p> <p>_____ Portable water heaters at least 20 ft. from serving area</p> <p>_____ Adequate aisles and exits are maintained</p> <p>b. Generators</p> <p>_____ Fuel bladders located as far as practical from other facilities</p> <p>_____ Fuel bladders earth bermed to contain any spillage/leak; earthen berms capable of containing 125% of tank capacity</p> <p>_____ All generators properly grounded</p> <p>_____ An extinguisher with minimum rating of 2A:10 B, C is available in the area</p> <p>_____ “No Smoking” signs posted around fuel storage areas</p> <p>_____ Vegetation control in generator and fuel storage areas</p> <p>c. Medical Facilities</p> <p>_____ In addition to general inspection areas, ensure at least one 150-LB halon flightline fire extinguisher available for air evacuation/helipad operations</p>
5. Fire Reporting	<p>_____ a. At least 1 local signaling device in/near each tent grouping to warn personnel of fire (warning triangle, blow horn with a unique sound, or other distinct signaling devices)</p> <p>_____ b. A bullhorn or public address system available at Mayor’s tent/office to use in event of a fire</p> <p>_____ c. Telephone/radio link to Fire Communication Center from Mayor’s tent/office if designated fire reporting phone lines not available (i.e., 911 or 117)</p> <p>_____ d. See general fire prevention and reporting procedures attachment for additional details</p>
<p>Notes:</p> <p>1. Post this checklist in a readily accessible, highly visible area.</p> <p>2. Senior member ensures all assigned personnel are familiar with the contents and their responsibilities in these checklists.</p> <p>3. Suggest submitting this attachment for installation control center directive (ICCD) or faxing to appropriate agencies.</p>	

Attachment 5

SAMPLE MUNITIONS STORAGE AREAS SAFETY PLANNING AND INSPECTION CHECKLIST

Table A5.1. Storage Area Checklists.

<i>Planning Task</i>	<i>Inspection Item</i>
1. General Layout	<input type="checkbox"/> a. Minimum distance from other facilities (AFPAM 10-219V5 and AFMAN 91-201). <input type="checkbox"/> b. Minimum separation distances based upon storage.
2. General Storage Requirements	<input type="checkbox"/> a. Open storage Without any type of barricades, munitions storage should be temporary only. Separation distances between stacks are maintained (AFPAM 10-219V5). <input type="checkbox"/> b. Covered storage Normally accomplished by using igloo ammunition storage facilities or combat zone type steel arch or culvert igloos/covered igloos. Net Explosive Weight (NEW) in nonstandard earth covered igloos is 250,000 pounds (quantity- distance criteria outlined in AFPAM 10-219V5).
3. Fire Prevention Practices	<input type="checkbox"/> a. Ensure flame and spark-producing devices are kept out of the area. <input type="checkbox"/> b. Maintain proper separation distances and vegetation control. <input type="checkbox"/> c. Ensure refuse and packing material is not allowed to accumulate. <input type="checkbox"/> d. Ensure firebreaks provided around each storage area. <input type="checkbox"/> e. Intentional/controlled burning should not be permitted without Fire Chiefs approval. <input type="checkbox"/> f. No flammable liquids for cleaning. <input type="checkbox"/> g. Flammable storage should be located at least 50 ft
<i>Planning Task</i>	<i>Inspection Item</i>
	from explosive storage locations. <input type="checkbox"/> h. Vehicles, other than those loading or unloading, not parked closer than 25 ft to any storage facility.
Notes: 1. Post this checklist in a readily accessible, highly visible area. 2. Senior member ensures all assigned personnel are familiar with the contents and their responsibilities in these checklists. 3. Suggest submitting this attachment for ICCD or faxing to appropriate agency.	

Attachment 6

FIRE EMERGENCY SERVICES GUIDE FOR AUXILIARY FIREFIGHTING TEAMS

A6.1. At contingency locations, it is likely that firefighters will be engaged in mission essential F&ES tasks. In such situations, firefighters may be unable to respond to incidents involving lesser priorities as listed in base emergency management plans. Therefore, fire prevention training becomes crucial so non-firefighting personnel can intervene early to extinguish small fires.

A6.2. Chapter 4 in AFPAM 10-219, Volume 3, provides additional information for auxiliary firefighting tactics and training. The following checklist provides a brief overview of firefighting actions.

Table A6.1. Auxiliary Firefighting.

GENERAL FIREFIGHTING AND REPORTING PROCEDURES	
D Know location & operation of fire extinguishers prior to needing them. D Fight small fires within limitations of extinguisher & personal training. D Always operate using buddy system; work in teams. D Maintain fire escape route to your back and never allow fire to get between you & your way out. D For auxiliary firefighters trained to utilize fire hoses/nozzles and fire pumps, always perform within the realms of your training. D Always remember, if fire gets out of control, evacuate & try to contain fire to building from outside. Limit spread of fire to adjacent structures.	
BASIC FIREFIGHTING METHODS	
Type	Methods
Fire Prevention	D Preventing fires is always the best line of defense.
Structural Fire	D Do not enter a burning building to fight a fire. D If fire is found in early stages of development, the appropriate fire extinguisher can extinguish the fire.
Structural Fire (cont.)	D Auxiliary firefighters with proper training can utilize hose streams from exterior in order to control the spread of fire.
Vehicle Fire	D A fuel fire can be put out with a portable fire extinguisher. D Do not allow flowing fuel to flow towards you. D Do not stand in puddles of fuel. D If fuel tank has ruptured; do not attempt to fight the fire. D Remove exposures if this can be done safely.
Electrical Fire	D Never use water on an electrical fire.
Gas Fire (Natural/ Propane)	D Only use type C fire extinguishers. D Turn gas off at shut-off valve and fight fire as a structural or tent fire. D Do not extinguish the fire prior to removing the fuel source.
Tent Fire	D Fire spreads with alarming speed in a tent fire and can be very dangerous.
Ground Cover Fire	D Utilize shovels, rakes, fire brooms, etc.
Note: Suggest submitting this attachment for ICCD or faxing to appropriate agencies.	

Attachment 7

GENERAL FIRE PREVENTION AND REPORTING PROCEDURES

A7.1. Tent Chief. Senior member assigned to each tent has the following responsibilities:

A7.1.1. Ensure personnel assigned to your tent are familiar with this checklist and their fire prevention and reporting responsibilities.

A7.1.2. Ensure this checklist is posted in each tent, readily available and visible for use in the event of an emergency.

A7.2. Fire Reporting and Evacuation.

A7.2.1. SOUND THE ALARM: Yell FIRE, FIRE, FIRE.

A7.2.1.1. Evacuate the tent area immediately.

A7.2.1.2. Get far enough away to ensure safety.

A7.2.1.3. Take a head count to ensure everyone evacuated safely.

A7.2.1.4. Do not reenter a burning structure for any reason.

A7.2.2. Report the fire.

A7.2.2.1. Use designated fire phone number or locally established fire reporting procedures.

A7.2.2.1.1. Your name and telephone number/radio call sign where you can be reached.

A7.2.2.1.2. Size and location of the fire.

A7.2.2.1.3. Type of fire.

A7.2.2.1.4. Other pertinent information, i.e. number of victims.

A7.2.2.2. Contact your UCC immediately and follow up to ensure it's been reported!

A7.2.2.3. Firefighters may not be able to respond; in the event this occurs, implement auxiliary firefighting procedures (see Auxiliary Firefighting Checklist in [Attachment 6](#)).

A7.2.3. Fight the fire with the fire extinguisher.

A7.2.3.1. Do not attempt to fight the fire unless you can do so safely.

A7.2.3.2. REMEMBER: While fighting fire in MOPP 4, your protective mask will not protect you from the products of combustion. Stay upwind and always have an escape route at your back.

A7.2.4. Evacuate adjacent tents and facilities.

A7.2.5. Drop adjacent tents if you can do it safely.

Attachment 8

SAMPLE FES OPERATIONAL CHECKLISTS

Table A8.1. Chain of Command/Duty Assignment Charts.

<i>DUTY ASSIGNMENTS</i>						
First	Last	MI	RANK	Duty Assign	DEROS	Duty Assign
			CMSgt			
			SMSgt			
			MSgt			
			TSgt			

Table A8.2. Fire Emergency Services Dispersal Plan.

<i>CALL SIGN/ VEHICLE/ REGISTRATION</i>	<i>ASSIGNMENTS</i>		<i>DISPERSAL LOCATION</i>	<i>STATUS</i>
	<i>Day Shift</i>	<i>Night Shift</i>		
Chief 1 C2 REG # Weapon #				Personnel Fuel Equipment
Chief 2 C2 REG # Weapon #				P: F: E:
Command Van Step Van REG. # Weapon #				P: F: E:
Rescue P-XX REG. # Weapon #				P: F: E:

Table A8.3. Emergency Water Source Locations.

<i>IDENTIFIER.</i>	<i>MGRS COORD</i>	<i>CAPACITY</i>	<i>STATUS</i>
EWS SITE # 1			
EWS SITE # 2			
TANK # 1			
TANK # 2			
TANK # 3			
TANK # 4			
TANK # 5			
TANK # 6			
TANK # 7			
TANK # 8			
RAW WATER # 1			
RAW WATER # 2			
RAW WATER # 3			
POOL			
DRAFTING PIT			
RIVER			

Table A8.4. Important Contact Information.

<i>NAME</i>	<i>PHONE</i>	<i>CALL SIGN</i>	<i>LOCATION/GRID</i>
EOC			
Alternate			
UCC – CE Reps.			
Alt. UCC – CE Reps.			
Tertiary UCC – CE Reps.			
BCE			
Alternate			
Tower			
Alternate			
MOC			
Alternate			
MUNS			
Alternate			
Trans			
Alternate			
Fuels			
Alternate			
SFS			
Alternate SFS			
ECC			
Alternate			
Tertiary			
Medical			
Alternate			

Table A8.5. Preparation Checklist.

TITLE/SUBJECT/ACTIVITY/FUNCTIONAL AREA		OPR:	DATE:	
1. Preparation Checklist		XXX CES/ CEF	Oct 2005	
NO.	ITEM	Go	No/ Go	N/A
1	<u>FACILITY:</u> A. Blackout/Tone down/Hardening Actions: - Turn off all outside lighting. Disable automatic exterior lights. - Install Blackout boards or window covers on all exterior windows. - Cover all bldg numbers & facility use ID markings. - Install camouflage netting over covered access to entry control point (ECP). - Lock all exterior doors & establish single entry point (as required by FPCON levels). Post signs on all doors (except ECP) stating “Door Locked - Use Main Entrance.” - Post current FPCON level on entry door and toxic free area (TFA) entry/exit.			

	<ul style="list-style-type: none"> - Place M-8 chemical detection boards. - Place weapon clearing procedures sign near weapons clearing barrel outside ECP. - Place weapon storage rack inside ECP. - Ensure shuffle boxes are in place outside of main ECP & outside of TFA main entrance. Ensure brushes are available; boxes are filled with sand & have covers. - Hang shuffle box instructions - Shelter manager's/security will use UXO marking kit to conduct facility sweeps. <p>B. Establish CCA Processing Line.</p> <ul style="list-style-type: none"> - Set up various stations and instructional signs. - Position additional JS-LIST/J-FIRE items near CCA/TFA processing line. <p>C. Emergency Generator Procedures</p> <ul style="list-style-type: none"> - The emergency generator will be inspected as soon as possible. Check fuel and top off as required. - Harden generator fuel tank. - M-8 placards will be placed on a horizontal surface around the generator facility. 			
2	VEHICLES: SEE VEHICLE PREPARATION CHECKLIST			
3	<p>VEHICLE DISPERSAL SITES: Camouflage & Hardening Actions:</p> <p>A. Set-up camouflage splinter protection and contamination avoidance.</p> <ul style="list-style-type: none"> - Erect frame to support plastic and camouflage covering at sites. - Establish vehicle splinter protection, defensive fighting position and bunker. - Install concertina wire around dispersal site to control access. <p>B. Ensure equipment items are secured and protected inside splinter protected areas.</p>			
4	<p>EMERGENCY COMMUNICATION CENTER AND ALTERNATE LOCATIONS:</p> <p>A. Primary ECC (Bldg. XXX):</p> <ul style="list-style-type: none"> - Restrict access. - Inventory ECC Kit and place in the ECC. - Prepare Bug Out Kit <p>B. Alternate ECC (Bldg. XXX):</p> <ul style="list-style-type: none"> - Inventory the Alternate ECC Kit. - Inspect phone and radios. 			
5	<p>INDIVIDUAL PROTECTIVE EQUIPMENT (IPE) FOR MOPP 0 OR HIGHER:</p> <p>A. Personnel:</p> <ul style="list-style-type: none"> - Inspect members for ID Card, Line Badge, Dog Tags, and other documents as locally required; place in outer pocket - Inspect protective mask and update your inspection card, re-inspect at proper intervals. <p>B. IPE:</p> <ul style="list-style-type: none"> - Mark JS-LIST gear with M-9 tape IAW AFTTP 3-4 - Mark items with Kill Tag numbers, fill canteen and don IPE to current MOPP - Ensure personnel have required equipment to include; helmet, web belt, canteen, body armor, protective mask, flashlight 			
6	Ensure EWS hardening/splinter protection is accomplished.			

Table A8.6. Vehicle and Equipment Dispersal Sites.

TITLE/SUBJECT/ACTIVITY/FUNCTIONAL AREA		OPR:	DATE:
2. Vehicle and Equipment Dispersal Sites		XXX CES/	Oct 2005
NO.	ITEM		
1	Vehicle/Equipment Dispersal Sites: <u>SITE</u> <u>GRID</u> <u>LOCATION</u> <u>VEHICLE</u> <u>SECTOR/ZONE</u> ALPHA BRAVO CHARLIE DELTA ECHO FOXTROT ECC Alt. ECC Mobile Air Trailer AFFF Trailer Agent/Hose SCBA Units AFFF 5-gal CN PKP 50-lbs CN		

Table A8.7. Dispersal Trailer Inventories.

TITLE/SUBJECT/ACTIVITY/FUNCTIONAL AREA		OPR:	DATE:	
3. Dispersal Trailer Inventories		XXX CES/ CEF	Oct 2005	
NO.	ITEM	Go	No/ Go	N/A
1	ALPHA Site Trailer (Crash Truck): - Spare Tire and Rim, Qty (1 EA) - 3% AFFF in 5-gal containers, Qty (36 CN) or 180 gallons total. - 100' of 3" Supply Hose and misc. tools and adapters - 5-gal Diesel Jerry Can, Qty (2 EA) - SCBA Units, Qty (3 EA) - Extra SCBA Cylinders, Qty (3 CY) - 50-lb Cans of PKP, Qty (3 CN) or 150 pounds			
2	BRAVO Site Trailer (P-23 Crash Truck): - P-23 Spare Tire and Rim, Qty (1 EA) - 3% AFFF in 5-gal containers, Qty (36 CN) or 180 gallons total. - 100' of 3" Supply Hose and misc. tools and adapters - 5-gal Diesel Jerry Can, Qty (2 EA) - MSA Firehawk SCBA Units, Qty (3 EA) - Extra SCBA Cylinders, Qty (3 CY) - 50-lb Cans of PKP, Qty (3 CN) or 150 pounds			

3	CHARLIE Site Trailer (Water Tanker): <ul style="list-style-type: none"> - Spare Tire and Rim, Qty (1 EA) - 100' of 3" supply hose and misc. tools and adapters - 5-gal Diesel Jerry Can, Qty (1 EA) - SCBA Units, Qty (1 EA) - Extra SCBA Cylinder, Qty (1 CY) - 500' of 5" Supply Hose 			
4	DELTA Site Trailer (Crash Truck): <ul style="list-style-type: none"> - Spare Tire and Rim, Qty (1 EA) - 3% AFFF in 5-gal containers, Qty (36 CN) or 180 gallons total. - 100' of 3" supply hose and misc. tools and adapters - 50-lb Cans of PKP, Qty (3 CN) or 150 pounds - 5-gal Diesel Jerry Can, Qty (2 EA) - SCBA Units, Qty (3 EA) - Extra SCBA Cylinders, Qty (3 CY) 			
5	ECHO Site Trailer (Structural Pumper): <ul style="list-style-type: none"> - Power Saw Kit and extra blades - Spare Tire and Rim, Qty (1 EA) - 1000' of 5" supply hose & misc. tools & adapters - 5-gal Diesel Jerry Can, Qty (1 EA) - SCBA Units, Qty (4 EA) - Extra SCBA Cylinders, Qty (4 CY) - 3% AFFF in 5-gal containers, Qty (11 CN) or 55 gallons total. 			
6	FOXTROT Site Trailer (Crash Truck): <ul style="list-style-type: none"> - Spare Tire and Rim, Qty (1 EA) - 3% AFFF in 5-gal containers, Qty (26 CN) or 130 gallons total. - 100' of 3" supply hose and misc. tools and adapters - 50-lb Cans of PKP, Qty (3 CN) or 150 pounds - 5-gal Diesel Jerry Can, Qty (1 EA) - 200' of 1-3/4" Fire Attack Hose Lines and spare TFT nozzle, Qty (2 EA) - SCBA Units, Qty (3 EA) - Extra SCBA Cylinders, Qty (3 CY) 			
7	SUPPORT Vehicle Trailer: <ul style="list-style-type: none"> - Spare Tire & Rims (1 each per vehicle type) - 5-gal Diesel Jerry Can, Qty (1 EA) and 5-gal MOGAS Jerry Can, Qty (1 EA) - Gross Decon buckets & brushes 			

Table A8.8. Vehicle Preparation Checklist.

TITLE/SUBJECT/ACTIVITY/FUNCTIONAL AREA		OPR:	DATE:	
4. Vehicle Preparation Checklist		XXX CES/ CEF	Oct 2005	
NO.	ITEM	Go	No/ Go	N/A

1	<p>Items required: Vehicle Kits (Decon, UXO, self-aid & buddy care), inventory checklist, M-9 tape, fresh water containers and vehicle books.</p> <ul style="list-style-type: none"> - Conduct complete vehicle checkout and inventory using vehicle books, appropriate checklists, vehicle Tech Order excerpts, and AF 18XX cards. - Top off vehicle with fuel and oils as required. - Ensure agent is topped off as required. - Inventory and store vehicle kits. - Check first aid kit for seal and current date. - Place spare SCBA air bottles on each vehicle. - Place full fresh water container on each vehicle; attach a piece of M-8 on top of the container. 			
2	<p>Complete other passive defense measures.</p> <ul style="list-style-type: none"> - Camouflage. - Expedient hardening/splinter protection. - Blackout vehicles. <p>*Remember, if you can be seen, you are a target*</p>			
3	<p>Place M-8 on horizontal surfaces.</p> <ul style="list-style-type: none"> - Mark M-8 with date & time placed on vehicle. <p>Replace and re-mark if contaminated or saturated.</p> <ul style="list-style-type: none"> - Cover vehicle registration numbers or unit ID during FPCON "Charlie" or higher levels. 			
4	<p>DECON, Self Aid Buddy Care (SABC) and Unexploded Ordnance (UXO) Kits:</p> <ul style="list-style-type: none"> - Inventory & place a veh. decon kit on each veh. - Inventory & place a SABC kit on each veh. - Inventory & place a UXO Marking kit on each veh. <p>Kits should include:</p>			

	DECON KIT <ul style="list-style-type: none"> - Bucket - Bug Sprayer - Bleach - Decontamination mitt/paper bag - Brushes; long and short handled - Sponges - Plastic bags and rubber bands to seal SCBA bottle connections - Plastic bags SABC KIT <ul style="list-style-type: none"> - Assorted splints - Triangle bandages - Slings - Assorted bandages UXO KIT <ul style="list-style-type: none"> - Markers for UXO and contamination. - Chemical "Glow Sticks." - Surveyors ribbon and stakes. - Flashlight. <p>Maintain the following items on each Emergency Response Vehicle:</p> <ul style="list-style-type: none"> - AF Form 1800 - Operator's Inspection Guide and Trouble Report - Vehicle's Waiver Card - Vehicle Equipment/Tool Inventory Sheet - Standard Form 91 - Motor Vehicle Accident Report - DD Form 518 - Accident Identification Card - SCBA Operator Inspection Checklist (as applicable) - Vehicle Fuel Key - Decontamination Kit - SABC Kit 			
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Attachment 9

FES UTC MISCAPS

A9.1. Force Packages.

A9.1.1. UTC: 4FPFF, Title: EN Fire Chief Manager.

Provides essential FES management for wing personnel and firefighters when combined with 4FPFN, 4FPFJ, or 4FPFP Unit Type Code to beddown, sustain and recover garrison and contingency locations for natural and manmade disaster response. Provides FES management oversight, including training, and provides senior leadership advice on vital information for minimizing loss of life, property damage, and limiting damage from fire that would seriously degrade mission capability. Capable of providing 12-hour Emergency Operations Center coverage. Personnel will deploy with individual protective equipment and clothing, weapons and ammo unless otherwise directed. Base operating support is required.

<u>FAC</u>	<u>AFSC</u>	<u>Description</u>	<u>Qty</u>
44F1	3E700	Fire Protection Manager	1

A9.1.2. UTC: 4FPFN, Title: EN Deputy Fire Chief Manager.

Provides essential FES management for wing personnel and firefighters when combined with 4FPFF, 4FPFJ, or 4FPFP Unit Type Code to beddown, sustain and recover garrison and contingency locations for natural and manmade disaster response. Provides senior leadership advice on vital information for minimizing loss of life, property damage, and limiting damage from fire that would seriously degrade mission capability. Provides 12-hour Emergency Operations Center coverage. Personnel will deploy with individual protective equipment and clothing, weapons and ammo unless otherwise directed. 3E700 skill level substitution is allowed. Base operating support is required.

<u>FAC</u>	<u>AFSC</u>	<u>AFSC Title</u>	<u>Qty</u>
44F1	3E791	FIRE PROTECTION	1

A9.1.3. UTC: 4FPFJ, Title: EN Firefighter Management 2 PK TM

Provides fire ground/hazardous materials incident command and control for single or multiple 4FPFPs to beddown, sustain and recover garrison and contingency locations for natural and manmade disaster response. Team is capable of providing 24-hour fire ground incident C2 for aircraft, structural, petroleum, oil and lubricant, munitions fire suppression and rescue operations. Team is also capable of providing Expeditionary Combat Support fire prevention functions and limited fire prevention inspections. Personnel will deploy with individual protective equipment and personal protective equipment, weapons and ammo unless otherwise directed. Base operating support is required.

<u>FAC</u>	<u>Grade</u>	<u>AFSC</u>	<u>AFSC Title</u>	<u>Qty</u>
<u>44F1</u>	<u>MSgt</u>	<u>3E771</u>	<u>FIRE PROTECTION</u>	<u>1</u>
<u>44F1</u>	<u>MSgt</u>	<u>3E771</u>	<u>FIRE PROTECTION</u>	<u>1</u>

A9.1.4. UTC: 4FPFP, Title: EN Firefighter Truck Crew 6 PK TM Provides for a single aircraft rescue firefighting vehicle (ARFF) operation and provides staffing for one rapid resupply water tender and fire alarm communications. To beddown, sustain and recover

garrison and contingency locations for natural and manmade disaster response. Type aircraft determines amount of fire suppression agent required (in gallons). One 4FPFP UTC is required for each Aircraft Rescue Firefighting Vehicle. When multiple 4FPFPs are deployed; one 4FPFJ, and one 4FPFN or 4FPFF Unit Type Code is required. Capable of providing 24-hour crash rescue/fire suppression service and fire ground command and control. Also provides limited for structural, petroleum, oil and lubricants, and munitions fires. Hazardous material response capability is limited to hazardous material defensive operations only. Personnel will deploy with individual protective equipment and personal protective equipment, clothing, weapons, and ammo unless otherwise directed. Base operating support is required.

<u>FAC</u>	<u>Grade</u>	<u>AFSC</u>	<u>AFSC Title</u>	<u>Qty</u>
44F1		3E731	FIRE PROTECTION APR	2
44F1		3E751	FIRE PROTECTION	3
44F1		3E771	FIRE PROTECTION	1

Total Personnel: 6

A9.1.5. **UTC: 4FPS4** Title: EN Fire JTF/HQ Staff Mgt Team

Fire protection force to provide staff augmentation in support of regional contingencies or natural disasters during wartime or stability operations. UTC may be augmented by additional fire UTCs to support stability operations. Personnel will deploy with individual protective equipment and Clothing, weapons and ammo unless otherwise directed. Substitutions authorized for execution, reporting, and posturing in accordance with *AFI 10-403*. Base operating support is required.

<u>FAC</u>	<u>AFSC</u>	<u>AFSC Title</u>	<u>Qty</u>
1700	3E700	FIRE PROTECTION	1
1700	3E771	FIRE PROTECTION	2

Total Personnel: 3

A9.2. Equipment Packages.

A9.2.1. **UTC: 4F9FB.** Title: EN Firefighter SCBA Package

Provides deployed firefighters with essential self-contained breathing apparatus (SCBA), air cylinders, and face pieces providing capability to support immediate danger to life and health (IDLH) emergency response operations in support of regional conflicts, MCO and natural disaster relief efforts for ARFF and or structural firefighting emergency response operations.

A9.2.2. **UTC: 4F9FE** . Title: EN Firefighter Comm Package (equipment).

Provides deployed firefighters with essential communications to perform limited firefighting operations in support of regional conflicts, MCO, and natural disaster relief efforts for both crash and/or structural firefighting operations.

A9.2.3. **UTC: 4F9FF.** Title: EN Firefighter Self Contained Breathing Apparatus (SCBA) Compressor (equipment only). Provides deployed firefighters with essential breathing air reservicing capability to support limited firefighting operations in support of regional

conflicts, MCO, and natural disaster relief efforts for both crash and/or structural firefighting operations.

A9.2.4. UTC: 4F9FH. Title: EN HAZMAT Emergency Response Equipment (equipment only). Provides deployed firefighters with essential equipment needed to perform HazMat/WMD response in support of MCO or expeditionary operations at bare bases, forward operating locations, aerial ports, enroute bases, critical stateside bases, humanitarian relief operations, and to protect the homeland. Deployed in response to accidents or natural disasters requiring mitigation or containment of hazardous material releases such as toxic industrial chemicals/materials. Limited capability exists to respond to nuclear, biological, or radiological agent incidents. Must be combined with three 4FPFP and one 4FPFJ UTCs to accomplish the mission.

A9.2.5. UTC: 4F9FJ. Title: EN Firefighter Management 2 PK TM EQ (equipment only). Provides equipment to support fire ground/hazardous materials incident C2 for one 4FPFJ UTC in support of operations at a bare base, co-located operating base, forward operating location or other contingency operating locations, aerial ports, enroute bases, or critical stateside bases. Equipment will support 24-hour fire ground incident C2 for aircraft, structural, POL, and munitions fire suppression and rescue operations.

A9.2.6. UTC: 4F9FX. Title: EN Firefighter Limited Equipment Set (equipment only). Provides deployed firefighters with essential firefighting equipment to perform limited firefighting operations to support beddown, sustain and recover garrison and contingency locations for natural and manmade disaster response for both crash and/or structural operations. For full requirements see Civil Engineer Supplement to the War & Mobilization Plan Volume 1. **Note:** The most current UTC information and that of their corresponding Equipment and Supply Listings (ESL) can be found on the F&ES SharePoint at <https://portal.afcec.hedc.af.mil/CX/fes/SitePages/Home.aspx> on the Readiness tab.

A9.2.7. UTC: 4F9FR. Title: EN Firefighter Aircraft Rescue Support Kit (Equipment Only)

Provides two deployed aircraft rescue firefighting vehicles with essential firefighting equipment to perform limited aircraft firefighting operations to beddown, sustain and recover garrison and contingency locations for natural and manmade disaster response for both crash and/or structural operations. For full requirements see Civil Engineer Supplement to the War & Mobilization Plan Volume 1. Must be deployed with either UFM36 and/or UFM38.

A9.2.8. UTC: 4F9FS. Title: EN Firefighting Structural Support Kit (Equipment Only)

Provides on deployed structural vehicle or water tanker with essential firefighting equipment to perform limited structural firefighting operations to beddown, sustain and recover garrison and contingency locations for natural and manmade disaster response. For full requirements see Civil Engineer Supplement to the War & Mobilization Plan Volume 1. Must be deployed with either UFM33, UFM34 or UFM35.

A9.3. Vehicle Packages.

A9.3.1. UFM32 – L127/P18: Vehicle Only. Provides FES Flight initial ECS capability for fire protection operations. This UTC must be combined with UTC 4F9FX. This vehicle is staffed in wartime or contingency operations with 4 (2 per 12 hr shift) qualified fire fighters from UTC's 4F9FP, 4F9FN, or 4FPFJ. This UTC requires qualified fire truck vehicle

mechanic support. Secured spare tire, 600ft of 3 inch fire hose, 600ft of 1 3/4 inch fire hose, two 1 3/4 inch fire nozzles, one 24 ft. ground ladder, applicable T.O.(s), operations/repair manuals and TMSK will accompany vehicle.

A9.3.2. UFM33 – L128/P-26: Vehicle Only. Provides FES Flight initial ECS capability for fire protection operations. This UTC must be combined with UTC 4F9FX. This vehicle is staffed in wartime or contingency operations with 4 (2 per 12-hr shift) qualified fire fighters from UTC's 4F9FP, 4F9FN, or 4FPFJ. This UTC requires qualified fire truck vehicle mechanic support. Secured spare tire, 600 ft. of 3 inch fire hose, 600 ft. of 1 3/4 inch fire hose, two 1 3/4 inch fire nozzles, one 24 ft. ground ladder, applicable T.O.(s), operations/repair manuals and TMSK will accompany vehicle.

A9.3.3. UFM34 – L130/P-24: Vehicle Only. Provides FES Flight initial ECS capability for fire protection operations. This UTC must be combined with UTC 4F9FX. This vehicle is staffed in wartime or contingency operations with 8 (4 per 12-hr shift) qualified fire fighters from UTC's 4F9FP, 4F9FN, or 4FPFJ. This UTC requires qualified fire truck vehicle mechanic support. Secured spare tire, 1000 ft. of 3 inch fire hose, 800 ft. of 1 3/4 inch fire hose, three 1 3/4 inch fire nozzles, one 24 ft. ground ladder, one universal adapter, two 2 1/2 inch double male adapters, two 2 1/2 inch female adapters, applicable T.O.(s), operations/repair manuals and TMSK will accompany vehicle.

A9.3.4. UFM35 – L133 /P-22: Vehicle Only. Provides FES Flight initial ECS capability for fire protection operations. This UTC must be combined with UTC 4F9FX. This vehicle is staffed in wartime or contingency operations with 8 (4 per 12-hr shift) qualified fire fighters from UTC's 4F9FP, 4F9FN, or 4FPFJ. This UTC requires qualified fire truck vehicle mechanic support. Secured spare tire, 1000 ft. of 3 inch fire hose, 800 ft. of 1 3/4 inch fire hose, three 1 3/4 inch fire nozzles, one 24 ft. ground ladder, one universal adapter, two 2 1/2 inch double male adapters, two 2 1/2 inch female adapters, applicable T.O.(s), operations/repair manuals and TMSK will accompany vehicle.

A9.3.5. UFM36 – L143/P-23 : Vehicle Only. Provides FES Flight initial ECS capability for fire protection operations. This UTC must be combined with UTC 4F9FX. This vehicle is staffed in wartime or contingency operations with 8 (4 per 12-hr shift) qualified fire fighters from UTC's 4F9FP, 4F9FN, or 4FPFJ. This UTC requires qualified fire truck vehicle mechanic support. Secured spare tire, 1000 ft. of 3 inch fire hose, 800 ft. of 1 3/4 inch fire hose, three 1 3/4 inch fire nozzles, one 24 ft. ground ladder, one universal adapter, two 2 1/2 inch double male adapters, two 2 1/2 inch female adapters, applicable T.O.(s), operations/repair manuals and TMSK will accompany vehicle.

A9.3.6. UFM38 – L145/P-19 : Vehicle Only. Provides FES Flight initial ECS capability for fire protection operations. This UTC must be combined with UTC 4F9FX. This vehicle is staffed in wartime or contingency operations with 6 (3 per 12-hr shift) qualified fire fighters from UTC's 4F9FP, 4F9FN, or 4FPFJ. This UTC requires qualified fire truck vehicle mechanic support. Secured spare tire, 600 ft. of 3 inch fire hose, 600 ft. of 1 3/4 inch fire hose, two 1 3/4 inch fire nozzles, applicable T.O.(s), operations/repair manuals and TMSK will accompany vehicle. **Note:** Only the P-19B model has structural interior fire attack and drafting capability.