



Dryden Flight Research Center
Edwards, California 93523

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Dryden Centerwide Procedure

Code S

Emergency Preparedness and Response

Electronically approved by
Assistant Director for Management Systems

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1.0 PURPOSE OF DOCUMENT

This document provides a coordinated response to emergencies by responsible organizations at the Dryden Flight Research Center (DFRC). It establishes the framework for coordinating communications, command and control, and disposition of emergencies, including handoff of some aspects of emergency response, (e.g., temporary transfer of on-scene command to the Edwards Air Force Base (EAFB) or Los Angeles County Fire Departments), and transport of patients off site. Emergency communication resources are described in Appendix A.

2.0 PROCEDURE SCOPE & APPLICABILITY

Scope: This procedure applies to all activities involved in emergency response including field medical emergencies, fires, hazardous material releases, and adverse weather conditions at DFRC.

Scope Exclusions: This procedure does not include aircraft accidents or response to major center-declared disasters (e.g., mass casualty, multiple building fires) not controllable in a timely manner with DFRC assets (including those available from EAFB, Los Angeles County Fire Department, and Plant 42). Response to such events is covered in [DPL-8710.1-001](#), Disaster Preparedness Plan. Further, it does not apply to criminal or suspicious activity, bomb threats, or acts of terrorism.

Applicability: This procedure applies to all people and organizations at all DFRC facilities.

3.0 PROCEDURE OBJECTIVES, TARGETS, METRICS, & TREND ANALYSIS

- Objective:** Exercises are performed and evaluated with discrepancies tracked to closure
- Target:** Emergency exercises are performed as scheduled, review is accomplished and documented, and discrepancies are tracked to closure within 90 days.
- Metric:** Percentage of exercises where noted discrepancies are resolved in 90 days.

Trend analysis: Metrics will be analyzed to determine whether procedural objectives have been met.

4.0 WAIVER AUTHORITY

The waiver authority for this plan is the organization responsible for that response activity. The responsible organization has the authority to waive the use of or alter procedures defined in this plan. Such waivers, when employed, will be documented in a written review of the overall response to the emergency and will be maintained in the office of the responsible organization for the period of time prescribed by applicable law. The DFRC Safety Office will coordinate any changes to this plan.

5.0 RESPONSIBILITIES

Effective emergency response requires an integrated effort from all DFRC personnel. In addition, responding organizations must have up-to-date copies of this plan on hand at all times.

5.1 Staff Members (Civil Service & Contractors)

- A. Complete required emergency response training (Section 6) and understand your role in emergency preparedness and response.
- B. Make timely notification of emergency events via 911 telephone or radio system, or by cell phone (DFRC campus (661) 276-5916, DAO (661) 276-5504).
- C. When necessary, evacuate to the building assembly point if this location is not affected by the event (e.g., smoke, chemical release). Reentry into the affected area will not be allowed until the event site has been rendered safe and an "all clear" notification is given.
- D. For fires, activate building alarm system using the nearest pull box.
- E. Mitigate the emergency within the limits of your expertise and training. For medical emergencies, perform first aid or CPR or use the Automated External Defibrillator (AED) if you are trained and medical has not arrived. Appendix B contains the early defibrillation protocol.
- F. Call 911 to report spills of unknown materials.
- G. When weather may affect driving conditions, follow guidance on delays or closures. Prior to leaving for work, monitor local radio stations, the DFRC web site, or call the Dryden Events and Employee Emergency Notification Hot Line at (661) 276-2777 for closure announcements. If at work, early closures will be announced via email and over the PA system.

5.2 Hazardous Material Users

- A. Complete general Hazard Communication training on SATERN. Complete job-specific training with your supervisor for the specific hazardous material(s) used in your work as required by [DCP-S-009, Chapter 9](#), Hazard Communication, and [DCP-S-102](#) EMS Chemical Management, before using hazardous materials.
- B. Know how to safely work with the hazardous materials you use and the appropriate response in the event of a spill.
- C. Have appropriate spill cleanup materials readily available in case a spill occurs.
- D. Clean up low risk spills of hazardous materials within the limits of your expertise and training, and then contact the Safety, Health, and Environmental office at extension 2307.
- E. Call 911 in the event of elevated risk hazardous material spills, spills of unknown materials, or hazardous materials released to soil or surface water.

5.3 Supervisors

- A. Ensure that employees understand their Building Emergency Action Plan (the DAOF Emergency Action Plan is [DPL-8710.1-007](#)).
- B. Ensure your employees are trained and have proper personal protective equipment to safely work with hazardous materials as required in [DCP-S-066](#), Hazard Communication.
- C. Ensure that appropriate spill cleanup materials are readily available for the hazardous materials used by your employees.
- D. Supervisors in charge of activities that may be affected by adverse weather conditions must have a plan for terminating those activities should conditions warrant and contacting affected employees. Such activities include any outdoor work, and indoor work with electrically-initiated explosive devices or sensitive electronics.

5.4 Fire Wardens

The following responsibilities apply to primary and alternate fire wardens. Fire Wardens are assigned by Branch Chiefs and Contract Managers.

- A. Complete Fire Extinguisher training as required by [DCP-S-061](#), Fire Safety.
- B. Complete Fire Warden training, upon initial delegation and as required by Code SH.
- C. Ensure your evacuation roster is kept current and accurately reflects employees present in your zone.

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- D. Ensure that a current evacuation roster can be accessed immediately for accurate accountability of employees at the assembly point in the event of an evacuation.
- E. Be familiar with:
 - 1) All of the exits in your area. Exterior stairwells may be the closest exit routes for some employees. Use the closest routes during evacuations.
 - 2) The locations and capabilities of the alarm pull stations and fire extinguishers in your area.
 - 3) Elevators, restrooms, and stairwells in your area.
 - 4) The primary and secondary assembly points; and emergency preparedness CONEX assigned for your zone.
- F. Assign evacuation assistants or request volunteers to support you during building evacuations. The assistants may be utilized to clear areas of the zone or assist handicapped employees out of a building. Ensure the assistants are aware of what their immediate actions should be during an evacuation.
- G. Take the following steps during a building evacuation:
 - 1) Instruct employees to grab their personal belongings, evacuate via the **nearest** exit, and proceed to the assembly point.
 - 2) Gather your fire warden items, including your clipboard and vest or armband.
 - 3) Conduct a quick sweep of your zone, including stairwells, restrooms, elevators (if possible), and supply closets, etc. Close doors in cleared areas to prevent the spread of fire. Continue to verbally instruct employees to evacuate the area.
 - 4) Reroute employees to alternate exits if primary exits are getting overcrowded.
 - 5) Identify employees who may be injured. Assist them if possible or assign others. If you cannot get them out of the building, try to move them to a safe area (i.e., stairwell). Make a note of the location and employee's name to pass along to emergency responders.
 - 6) Evacuate the building via the closest exit to you and report to the assembly point.
 - 7) If the primary assembly point places employees in a dangerous location, relocate them to the secondary assembly point or alternate location upwind.

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- 8) Take role on the evacuation roster. Indicate which employees are present, out of the office for the day, injured inside the building, or unaccounted for.
 - 9) Instruct employees not to enter the building again until the all-clear is given via the Fire Wardens, Zone Coordinators, or public address system.
 - 10) If injured employees are inside the building, inform emergency response personnel **immediately**.
 - 11) Escort injured personnel to the zone aid station as necessary or as directed.
 - 12) Assist the Zone Coordinator as requested.
 - 13) Return the evacuation roster to the Fire Warden Program Coordinator (non-emergency situations) or Zone Coordinator (emergency situations).
- H. Refer to the Building Emergency Action Plan for additional guidance on accounting for personnel in an emergency.

5.5 Zone Coordinators

- A. Using rosters from Fire Wardens, account for personnel at the CONEX aid station.
- B. Ensure injured personnel are triaged and provided best available care.
- C. Ensure personnel at the CONEX aid station are given aid and comfort and kept informed.

5.6 Medical (Code X)

- A. Respond to medical emergencies with appropriate, available medical personnel and equipment.
- B. Provide initial emergency triage and treatment of victims.
- C. Upon stabilization, ensure proper transportation of victim to secondary treatment location.

Note: The DFRC Medical Emergency Response Vehicle (MERV) is not an ambulance. For ambulance transport, EAFB ambulance service (DFRC main campus) or LA County Emergency Medical Services (DAOF) must be requested.

5.7 Protective Services (Code J)

- A. Operate the 911 phone and radio emergency communications systems. At DAOF, make emergency announcements during normal duty hours via the telephone system.

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- B. Request support services as directed by the On-Scene Commander (OSC).
- C. Secure and establish a safe perimeter around the incident site, and keep unauthorized personnel out until the site is released.
- D. Direct emergency responders to the incident site and other traffic away from or around the site.
- E. Serves as OSC in the absence of Safety Office personnel.
- F. Render first aid and CPR in the absence of medical personnel.
- G. At the DFRC main campus, monitor surveillance cameras' view of the lake-bed to support assessment of the severity of dust storms as requested.

5.8 Safety, Health and Environmental (SH&E) Office (Code SH)

- A. Serve as the On-Scene Commander (OSC) for all declared 911 emergencies, except those involving flight operations, security or terrorist threats, or Center-declared emergencies (e.g., mass casualty or multiple structure fire events). The senior Code SH representative will be the OSC at the incident site.
- B. Provide subject matter experts to assess the risks associated with the incident and help develop safe recovery plans for high-consequence events.
- C. When weather may become severe enough to affect driving conditions, consult with weather information sources (Appendix C) and make any necessary recommendations regarding closures or delays to the Center Director or designee.
- D. For hazardous material releases that can't be controlled with DFRC resources, call DFRC Protective Services Post 1 (DFRC main campus) to activate the EAFB Fire Department. At the DAOF, call DFRC Protective Services Post 50 to activate the Los Angeles (LA) County Fire Department. Oversee cleanup and decontamination efforts and arrange for the offsite transportation and disposal of hazardous waste generated during response activities.
- E. Make required notifications to regulatory agencies:
 - 1) Within one hour of a Class A or B mishap or other high-visibility mishap or close call, contact Office of Safety and Mission Assurance / Safety and Assurance Requirements Division (OSMA/SARD) by calling (202) 358-0006. If there is no answer, call the NASA Headquarters After-Hours Contact Center at 866-230-6272.
 - 2) For any mishap involving a work-related fatality or the in-patient hospitalization of three or more employees as the result of a work-

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related incident, report to Occupational Safety and Health Administration (OSHA) within eight hours by calling the OSHA Region IX Office at 415-975-4310 or the OSHA central toll-free number 800-321-6742.

- 3) For a hazardous material release to soil that could reach groundwater or that exceeds a state reportable quantity:
 - a) At DFRC, immediately contact the Lahonton Regional Water Quality Control Board 760-241-6583, Kern County Environmental Health Services Department/Kern County Certified Unified Program Agency at (661) 861-2521), and the EAFB Environmental Management Office at (661) 277-1401.
 - b) At the DAOF, contact the LA County Fire Department Hazardous Materials Division/LA County Certified Unified Program Agency at (323) 890-4045)
 - c) For hazardous material releases exceeding a federal reportable quantity, contact the National Response Center at (800) 424-8802 (24-hours).
 - d) Within 10 business days, follow up verbal hazardous material release notifications with a written report.

5.9 On-Scene Commander (OSC)

During normal hours, the Chief of the Safety, Health and Environmental Office or designee will serve as the OSC. During off hours or when a Safety Office representative is not available, a Protective Services supervisor will serve as the OSC. When the 911 system is activated, the OSC will manage the scene of the emergency and direct resources to preserve life, prevent further injuries, protect assets, and secure evidence necessary for incident investigation. The OSC will:

- A. Evaluate the situation and direct actions required to mitigate hazards associated with the event. If the EAFB Fire Department or Los Angeles County Fire Department provides assistance, the OSC responsibility will be delegated to the responding fire department on their arrival.
- B. When necessary, direct personnel to evacuate the affected building(s) or work area(s) to a designated assembly point or move to an upwind location if necessary. (A safe distance guideline for chemical releases is approximately 50 feet upwind of the affected area.) When warranted by weather conditions or other factors, direct personnel to a safe building.
- C. When emergency services are no longer required, notify Protective Services Post 1 (DFRC main campus) or Post 50 (DAOF) to terminate

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the response and, if applicable, make a public address system announcement for evacuated personnel to return to their building(s).

5.10 DFRC Meteorologist

The DFRC Meteorologist or designee will advise the Safety, Health, & Environmental (SH&E) office regarding potential hazardous conditions that may affect the safety of operations or travel (e.g., dust storms, high winds, snow, lightning, or ice storms).

During periods of potential adverse weather, the DFRC meteorologist will provide daily weather forecasts at the 0700. aircraft status meeting to make personnel aware of conditions that may warrant preventative actions.

5.11 Center Director

The Center Director has overall responsibility for safety at DFRC. The Director or designee also has specific responsibilities for emergency preparedness and response. The Center Director will:

- A. Determine when an emergency requires activation of the Emergency Operations Center (e.g., mass casualty event, multiple structure fire).
- B. Declare Center closures or modifications to t normal work day when adverse weather conditions make driving conditions hazardous.

5.12 DFRC Help Desk

The Help Desk will make public address system emergency announcements during normal duty hours at the DFRC main campus.

6.0 MEDICAL EMERGENCY

6.1 Notification

To report a NASA medical emergency, call 911 from any desk phone. From a cell phone at the DFRC main campus, call (661) 276-3256. From a cell phone at the DAOF, call (661) 276-5504.

6.2 Procedures During Duty Hours (0730-1700, Monday through Friday)

A. Medical

1. Monitor 911 calls
2. Request additional information as needed

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3. Establish the location of the emergency; request a Protective Services guide to the location if needed
4. Request EAFB ambulance or LA County EMS response if needed
5. Assemble available staffing and equipment
6. Respond in the Medical Emergency Response Vehicle (MERV) at DFRC and on foot at DAOF.
7. Verify the location with Protective Services while in route, if needed
8. Respond to the victim's location
9. Render appropriate medical intervention as required
10. Arrange for transport of victim as required

B. Safety

1. Monitor 911 calls
2. Establish the location of the emergency
3. Verify SH&E Office response with Protective Services
4. Request additional location information from Protective Services, if necessary
5. Respond to scene
6. Execute the role of On-Scene Commander (OSC) to manage the scene and direct resources as necessary to:
 - Preserve life
 - Prevent injuries
 - Protect assets
 - Secure evidence for incident investigation
7. Communicate with Protective Services as necessary to direct resources to the scene of the emergency
8. Terminate the emergency when appropriate and request notifications as necessary to return activities to normal

C. Protective Services

1. Receive emergency calls
2. Broadcast "emergency in progress" on all designated frequencies
3. Maintain contact as necessary with emergency responders
4. Confirm the Protective Services patrol is dispatched to the scene of the emergency

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5. Confirm Safety response to the scene
6. Request EAFB ambulance response or terminate LA County EMS automatic response (DAOF) if requested by Medical or the OSC
7. Manage emergency communications
8. If medical support is not present, ask nearby personnel who are trained in CPR/AED/First Aid if they will assist
9. If Safety is not present (e.g., after 1600), Protective Services Supervisor executes role of OSC to manage the scene and take necessary actions to:
 - Preserve life
 - Prevent injuries
 - Protect assets
 - Secure evidence for incident investigation
10. Direct responders to the location of the emergency
11. Provide crowd and traffic control
12. Act on the directions of OSC to obtain resources for the response
13. Broadcast termination of the emergency at the direction of the OSC

6.3 Procedures After Duty Hours (nights, weekends, holidays)

A. Protective Services

1. Receive emergency calls
2. Activate EAFB 911 at DFRC main campus or LA County EMS 911 at the DAOF
3. Broadcast "emergency in progress" on all designated frequencies
4. Maintain contact as necessary with emergency responders
5. Confirm Protective Services patrol and supervisor are dispatched to the scene
6. Manage emergency communications
7. Administer CPR, AED, First Aid as necessary until medical responders arrive on scene
8. In the absence of the Safety OSC, the Protective Services supervisor executes the role of OSC to manage scene and take necessary actions to:
 - Preserve life

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- Prevent injuries
 - Protect assets
 - Secure evidence for incident investigation.
9. Direct responders to the location of the emergency (e.g., EAFB ambulance or LA County EMS).
 10. Provide crowd and traffic control
 11. Terminate the emergency when appropriate
 12. Notify Safety of incident

7.0 FIRE

- A. Immediately upon discovery, employees will pull a fire alarm or call 911 to report the location and nature of the fire. Employees may then attempt to extinguish a small incipient fire if they are properly trained in the use of extinguishers and it is safe to do so.
- B. If the fire is beyond the incipient state, shut down equipment if it is safe to do so, and evacuate the building per the Building Emergency Action Plan to an assembly area upwind of any smoke plume. For fires in hangars, trained personnel will activate the foam sprinkler system for the zone(s) where the fire is located. This will also activate the fire alarm.
- C. Whenever a fire alarm sounds, employees will safely terminate any ongoing operations, exit the building, and proceed to the designated assembly point. Fire wardens will assist in the orderly evacuation of personnel from their zones to the designated assembly point and then verify that all personnel from their zones are out of the building. No personnel may reenter the affected building until the all clear notification is given.

Note: Fire Department Response is required for all fires. At the DFRC main campus, the EAFB Fire Department responds to all fires. At the DAOF, the LA County Fire Department provides support for structural fires, and the Plant 42 Fire Department provides support for aircraft fires.

8.0 HAZARDOUS MATERIAL RELEASE

8.1 General Approach to Dealing with Hazardous Material Releases

- A. Assess potential risks (exposure to personnel, fire, environmental, contamination, etc.).
- B. If the area is unsafe, evacuate personnel and call 911.

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- C. If safe to do so and within your training and ability, control or isolate the release. Then, when the spill is cleaned up, notify the SH&E Office to pick up hazardous waste.
- D. Your report of the release should be as described in Sections 8.2 – 8.3.

8.2 Low Risk Hazardous Material Release

Small releases of not more than 4 liters (1 gallon) may be controlled and cleaned up by chemical users within the limits of their hazard communication training and experience, **if**:

- The user has the personal protective equipment (PPE) and spill control materials required by the MSDS for dealing with a spill.
- It is a low hazard material (rated no more than 2 for toxicity, flammability, or reactivity on the label or MSDS).
- It will not potentially flow to drains, ditches, soil, or the lakebed.

After cleaning up the spill, call the DFRC Environmental Officer at x3976 to report the release and arrange for hazardous waste pick up.

8.3 Elevated Risk Hazardous Material Release

If the release is beyond the capability of the user to control and clean up due to volume, lack of training, chemical hazards, lack of necessary PPE or insufficient control materials, or if the released material may potentially flow to drains, ditches, soil, or the lakebed, call 911 and provide the following information:

- Name
- Location
- Nature of the release (e.g., type of material, approximate volume, and extent of the release)
- What spill response measures have been taken (e.g., isolation, evacuation, containment)

If it is safe to do so, remain on the line until released by Protective Services. The caller will then remain in a safe location in the area of the release in order to brief responders and assist with the clean-up within the limits of their training. If it is not safe to stay in the area of the release, evacuate the building to a staging area upwind of a potential chemical plume.

The SH&E Office will respond to the scene of the hazardous material release and provide cleanup assistance as they are able.

If the OSC determines the release is beyond the ability of DFRC to control, the OSC will direct Protective Services Control to request assistance from the EAFB Fire Department at the DFRC main campus, or the LA County Fire Department at the DAOF or the AERO Institute. Where a hazardous material release poses a risk to personnel, the OSC will evacuate personnel affected buildings. For an outdoor release, the OSC may need to initiate a shelter-in-place or Code Yankee order. Once the release is controlled, Code SH personnel will arrange for cleanup of the release site and removal of any resulting hazardous waste.

9.0 ADVERSE WEATHER CONDITIONS

9.1 Adverse Weather Conditions Occurring Prior to Regular Duty Hours

A. SH&E Office

When it appears that the weather may be severe enough to cause hazardous driving conditions, a representative of the DFRC SH&E Office will contact qualified sources (Appendix C) to assess the risk involved. If travel to the DFRC main campus, DAOF, or AERO Institute is deemed hazardous, the SH&E representative will contact the Center Director or designee at home and recommend the official message to be given to affected DFRC personnel (see Appendix C).

B. Center Director

The Center Director or designee will contact the Strategic Communications Office representative, directing them to disseminate the official message via the Dryden Events and Employee Emergency Notification Hot Line and the DFRC public web site, and notify the DFRC Protective Services Control Center of any work delays or closures.

Note: It is imperative that the DFRC main campus, DAOF, and AERO Institute (including any alternate shifts) be addressed in the message as conditions may differ between locations and shifts.

C. Strategic Communications

The Strategic Communications representative will disseminate the official statement to the Protective Services Control Center, record the message on the Dryden Events and Employee Emergency Notification Hot Line, and contact the DFRC web group staff to have them post the message on the DFRC public website.

D. Employees

When there is the potential for work delays or closures due to inclement weather, employees will monitor the DFRC public website,

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or call the Dryden Events and Employee Emergency Notification Hot Line at (661) 276-2777 for information.

9.2 Adverse Weather Conditions Occurring During Regular Duty Hours

9.2.1 DFRC Meteorologist

The DFRC Meteorologist provides daily weather forecasts at the 0700 aircraft status meeting and advises Facilities and the SH&E Office when potentially hazardous conditions are expected.

9.2.2 SH&E Office

The SH&E Office, in consultation with the DFRC Meteorologist, will contact the Center Director's Office to request a public announcement be made to affected DFRC main campus, DAOF, and AERO Institute personnel.

For heavy dust storms, the SH&E Office will initiate Shelter-in-Place/Code Yankee to get all personnel indoors, and to shut down building ventilation systems and close air dampers to prevent dust from entering buildings. This action provides the greatest protection for personnel and prevents the inadvertent activation of smoke detectors by dust.

Note: It is imperative that such warnings address the DFRC main campus, DAOF, and AERO Institute, as conditions may differ between locations.

9.2.3 Center Director

Except for lightning hazards, the Center Director or designee will issue a weather warning e-mail message for adverse weather conditions prior to normal duty hours and contact Strategic Communications to request dissemination of the weather warning.

Note: It is imperative that such warnings address Center, DAOF, and Aero Institute, as conditions may differ between locations.

9.2.4 The Help Desk

The help desk disseminates weather warnings via the PA system at DFRC.

Upon receipt of a lightning warning originating from EAFB, the help desk will initiate a prescribed PA announcement at DFRC.

9.2.5 Post 50

Post 50 disseminates weather warnings at DAOF via their emergency phone notification system.

Upon receipt of a lightning warning originating from Plant 42, Post 50 will initiate a prescribed statement at DAOF.

9.2.6 Employees

Employees will abide by weather warnings after safely terminating operations as necessary. If weather conditions become hazardous for the work being performed, do not wait for an announcement to seek shelter. There are operations in which wind creates unsafe conditions before it causes hazardous dust storms (e.g., work on roofs). Follow safety procedures and monitor wind conditions for such operations. If thunder is heard or lightning is visible while working outdoors, stop work and take shelter in a building or in an enclosed, metal-topped vehicle until 30 minutes after thunder is no longer heard or an all clear is received.

10.0 EARTHQUAKE

In case of earthquake, follow the procedures contained in [DCP-J-012](#), Earthquake Checklist.

11.0 EMERGENCY PREPAREDNESS

Emergency preparedness requires learning and practicing responses for potential emergency events.

11.1 Plans

The SH&E Office will work with Facilities to develop Building Emergency Action Plans and Building Pre-Fire Plans. The DAOF Emergency Action Plan is [DPL-8710.1-007](#).

11.2 Training

All DFRC employees must understand the Building Emergency Action Plan(s) for the building(s) in which they work and understand their responsibilities in these plans. Fire Wardens and Zone Coordinators must understand their special assigned roles during an emergency evacuation.

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Fire Wardens are required to have fire extinguisher, CPR, and Fire Warden training.

All emergency response personnel are required to read and understand this DCP, and complete First Aid/CPR and Bloodborne Pathogen training.

OSCs must also complete the following FEMA Incident Command System (ICS) training per DPL-8710.1-001 (or approved equivalent).

- IS 100 (ICS 100) Introduction to the Incident Command System (ICS)
- IS 200 (ICS 200) ICS for Single Resources and Initial Action Incidents
- IS 700 (ICS 700) National Incident Management System (NIMS): An Introduction
- IS 800 (ICS 800) National Response Framework, An Introduction

The professional medical staff will have the appropriate training to provide high quality care, promote efficient functioning of the Health Unit, and meet legal requirements of their jobs.

- All licensed nursing staff members are required to maintain current licensure by the state of California.
- All clinicians are required to maintain current California state licensure to practice medicine at DFRC.
- All permanent Health Unit professional staff are required to maintain current Advanced Cardiovascular Life Support (ACLS) certification.

11.3 Exercises

Drills of simulated emergency events will be conducted to practice and test responders' knowledge, abilities, and response. A post-drill critique will be completed and the results communicated to those involved. The frequency of various types of drills is shown below. Different types of drills may be combined in one field exercise (e.g., fire with burn injuries, chemical release with exposed personnel, etc.). To the extent practicable, all organizations that have a role in an exercise will participate.

- Fire drills are conducted annually in all facilities with ten or more occupants.
- Medical emergency drills are conducted quarterly.
- Hazardous material spill exercises are conducted annually
- Table-top drills of adverse weather events are conducted annually

Note: Except for fire evacuation drills, an actual emergency event can take the place of a drill if a critique is conducted and communicated to all

participants. Any problem areas noted during a critique will become action items for the responsible organization(s).

12.0 READINESS ASSESSMENTS

Emergency response organizations (Safety, Medical, and Protective Services) will periodically review their emergency readiness against the following evaluation criteria:

- Qualifications of personnel
- Orientation of personnel to the policies and procedures
- Training
- Documentation of training and orientation activities
- Preparedness Exercises
- Emergency Response Management
- Review and documentation of responses

Specific emergency response problem areas will be brought to the attention of responsible organizations.

13.0 RELEVANT DOCUMENTS

13.1 Authority Documents

OSHA 29 CFR 1910.38	Emergency Action Plans
NFPA 1	Fire Code
NFPA 101	Life Safety Code
NPR 1800.1	NASA Occupational Health Program Procedures
NPR 8621.1	NASA Procedures and Guidelines for Mishap Reporting, Investigations, and Recordkeeping
NPR 8715.2	NASA Emergency Preparedness Procedural Requirements
NASA-STD-8719.11	Safety Standard for Fire Protection
DFRC-047	Memorandum of Agreement between NASA Dryden Flight Research Center and 95 th Medical Group, Edwards Air Force Base, U.S. Air Force Flight Test Center for Emergency Medical Services Alliance Operation and Implementation

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DFRC-354 Interagency Memorandum of Agreement between the Department of the Air Force, Air Force Materiel Command, Aeronautical Systems Center, Acquisition Environmental Safety and Health Directorate for Air Force Plant 42 and NASA Dryden Flight Research Center and, AFP 42.

13.2 Reference Documents

DCP-J-012	Earthquake Checklist
DCP-S-061	Fire Safety
DCP-S-066	Hazard Communication
DCP-S-102	Environmental Management System, Chemical Management
DPL-8710.1-001	Disaster Preparedness Plan
DPL-8710.1-007	DAOF Emergency Action Plan

14.0 ACRONYMS & DEFINITIONS

14.1 Acronyms

ACLS	Advanced Cardiovascular Life Support
AED	Automated External Defibrillator
BLS	Basic Life Support
cc	cubic centimeters
CNS	Central Nervous System
CPR	Cardiopulmonary Resuscitation
CUPA	Certified Unified Program Agency
DAOF	Dryden Aircraft Operations Facility
DCP	Dryden Centerwide Procedure
DFRC	Dryden Flight Research Center
DOP	Dryden Operational Procedure
DPL	Dryden Plan
EAFB	Edwards Air Force Base
EMT	Emergency Medical Technician
EMS	Emergency Medical Services
FEMA	Federal Emergency Management Agency
GI	Gastrointestinal

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ICS	Incident Command System
IRIS	Incident Reporting and Information System
IV	Intravenous
L/min	liters per minute
MERV	Medical Emergency Response Vehicle
MOA	Memorandum of Agreement
MSDS	Material Safety Data Sheet
N ₂ H ₄	Hydrazine
NPR	NASA Procedural Requirement
OSC	On Scene Commander
OSHA	Occupational Safety and Health Administration
OSMA / SARD	Office of Safety and Mission Assurance / Safety and Assurance Requirements Division
PA	Public Address
ppm	parts per million
STD	Standard
TLV	Threshold Limit Value

14.2 Definitions

Response Time	The time between receipt of a 911 call and arrival of response personnel on-scene.
Shelter-in-place	Enter and remain inside the nearest habitable building.
Code Yankee	An order to shut down all building ventilation systems and close air dampers

15.0 MANAGEMENT RECORDS & RECORDS RETENTION

15.1 Report Requirements

- A. Following an emergency response, the following reports will be generated:
- Entry into the patient's medical record describing the nature of the emergency and treatment provided (if any). This record will be maintained at the DFRC Health Unit for the period of time prescribed by applicable law.
 - Written quality review of the medical aspects of the emergency response by the DFRC Medical Director or designee within 24

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hours of the emergency. This record will be maintained in the office of the DFRC Chief Nurse for the period of time prescribed by applicable law.

- An incident report in the Incident Reporting Information System (IRIS).

B. The responsible office will maintain records of required drills and exercises (e.g., Health Unit for medical emergency drills, SH&E Office for fire drills).

15.2 Training Documentation

Responders will maintain records of FEMA training in SATERN.

The following additional documentation is required for medical responders:

- An updated copy of the nursing license for all registered nurses will be maintained with the appropriate employer.
- A copy of appropriate professional license for clinicians (i.e., nurse practitioners and physicians) will be maintained with the appropriate employer.
- All 911 reviews and training (e.g., mock codes) will be kept on file in the office of the Chief Nurse.

15.3 Other Records

A. For fires, motor vehicle accidents, injuries, and occupational illnesses, reports will be filed in the NASA Incident Reporting and Information System (IRIS).

B. For chemical releases, written reports are filed within 10 days of the event. Reference the Code S Records Log (form DFRC 79) for retention requirements for Hazardous Material Release Reports Sent to External Regulatory Agencies.

APPENDIX A – EMERGENCY COMMUNICATION PLAN

1.0 DAILY PREPAREDNESS

- A. When on duty, responders will carry a radio except when they are close enough to hear a 911 phone).
- B. Protective Services will initiate a 911 phone and radio check daily between 0730 and 0830.
- C. Responders will initiate radio checks with each other and Protective Services as needed.

1.1 Responder Actions when 911 System is Activated

- A. Monitor call as Protective Services obtains information.
- B. Request any additional information needed from caller.
- C. State office responding.
- D. Request Protective Services to activate EAFB 911 and request emergency support (fire or ambulance), or to call LA County Fire Department/EMS support, if appropriate at this time. If an aircraft fire occurs outdoors at the DAOF, request support from Plant 42. .
- E. En route to an emergency, radio Protective Services and:
 - Provide departure time
 - Provide status location in route
 - Confirm location of site
 - Confirm personnel available to assist

1.2 Priority of Communication Devices Used During 911 Response

First:	.....	Handheld Land Mobile Radio (LMR)
Second:	.....	Cell phone
Third:	.....	Landline phone
Fourth:	.....	Public announcement system*

*When necessary, request Protect 1 to make PA announcement or page.

Radio Call Signs on DFRC 911 Frequencies

Medical 1	.....	Chief Medical Officer
Medical 4	.....	Medical Emergency Response Vehicle
Medical 10	.....	Health Unit Front Desk Staff
Medical 11	.....	Health Unit Clinician
Medical 12	.....	Chief Nurse
Medical 13	.....	Staff Nurse
Safety 1	.....	Chief of Safety (OSC)
Safety 2-9	.....	Alternate OSC
Protect 1	Protective Services Dispatcher (DFRC)
Protect 2	Protective Services (DAOF)

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APPENDIX B – EARLY DEFIBRILLATION PROTOCOL

Note: This protocol establishes the Automated External Defibrillator (AED) Program for DFRC.

1.0 PURPOSE

The AED enables responders within DFRC to deliver early defibrillation to victims in the first several minutes after a sudden cardiac arrest. This may take place within the DFRC ground complex, airborne DFRC aircraft, or at remote deployed sites where emergency medical response is not readily available. Responders' use of the AED is not intended to replace the care provided by 911 responders, EAFB Paramedic Ambulance Service, or LA County EMS but is meant to provide a lifesaving bridge during the first several minutes it takes for more advanced life support providers to arrive. Upon arrival of the emergency medical service providers, patient care should be transferred.

2.0 ROLES & RESPONSIBILITIES

A. Chief Medical Officer

The Chief Medical Officer has authority over the entire AED program. General responsibilities include the establishment and maintenance of the guidelines for care included in this protocol. In addition, the Chief Medical Officer facilitates quality assurance, compliance with protocols, and proper training; and provides positive reinforcement and corrective instruction to users.

B. AED Coordinator

The AED Coordinator is the primary liaison between the daily operation of the program and the Chief Medical Officer. Normally, this is the DFRC Health Unit Chief Nurse. The AED Coordinator has responsibilities that include:

- Tracking equipment and supplies
- Organizing training programs
- Forwarding incident data to the Chief Medical Officer
- Arranging for post incident debriefing sessions for any employees involved in medical emergency response.

Specifically, the AED Coordinator is responsible for ensuring that all AEDs are checked on a regular basis to ensure proper functioning, a charged battery, and associated supplies (e.g., pads) are not expired.

The AED Coordinator will document the following:

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- AED locations
- AED numbers
- Lock numbers
- Battery expiration date
- Battery lot numbers
- Pads expiration dates
- Pads lot numbers
- Spare pads expiration dates
- Spare pads lot numbers
- Date last checked

This documentation will be maintained in the office of the DFRC Chief Nurse.

C. Purchasers

Automated External Defibrillators do not require a physician's prescription in order to be purchased and are generally inexpensive. Therefore, any DFRC organization can purchase an AED to be placed in their work area.

Purchasers should coordinate the purchase of an AED with the AED Coordinator to ensure consistency of model interfaces across the Center to the extent feasible. Purchasers must report the purchase of an AED to the AED Coordinator so it can be entered in the tracking records for periodic inspection.

D. Users

There is no formal approval process to use an AED, if required. However, any user of an AED should be trained in proper use and contraindications; and assessment of scene safety. Classes on CPR/AED are offered regularly by the DFRC Health Unit. Users should call the Health Unit to attend such training. Similar training is also offered by various community organizations, to which users are referred to find out more information about training schedules and requirements.

3.0 PROTOCOL FOR AED OPERATION

A. Activate 911 (**Note:** Nothing should delay activating 911.)

- 1) Assess scene safety
- 2) Assess responsiveness. Tap shoulder and shout, "Are you okay?"
- 3) Activate 911 emergency response. Call 911 and give nature of emergency, location, and notify that an AED is being deployed. (If airborne, notify mission manager or pilot, as appropriate.)
- 4) Proceed with standard procedures of cardiopulmonary resuscitation (CPR)

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- B. Early CPR: Perform CPR until the AED arrives. When AED arrives, turn it ON, and operate AED in accordance with verbal and visual prompts.
- C. Advanced Care:
 - 1) Have a person wait for EMS responders at appropriate location to meet and guide them to the victim. (If airborne, advise pilot to land as soon as possible at nearest location where emergency medical care is available.)
 - 2) Responders working on the patient should communicate any important information to the EMS providers such as:
 - a) Victim's name
 - b) Any known medical problems, allergies, or medical history
 - c) Time the victim was found
 - d) Initial and current condition of victim
 - e) Number of shocks delivered
 - f) Length of time defibrillator has been used.
 - 3) Help EMS providers, as requested.

4.0 POST-USE PROCEDURE

The AED Coordinator will do the following after any AED use:

- A. Notify Chief Medical Officer, if not already notified.
- B. Conduct or arrange for employee incident debriefing, as needed. This may include arrangement for Critical Incident Stress Management through their DFRC Employee Assistance Program Officer.
- C. Complete incident follow-up report as deemed necessary by the Chief Medical Officer.
- D. Restock any used electrode pads, batteries, razors, or gloves. Inspect unused supplies for any damage or old expiration dates.
- E. Inspect the exterior and connector for dirt or contamination. Clean the AED, if needed.

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5.0 REGULAR MAINTENANCE

On a regular basis, the AED Coordinator will ensure the following is accomplished:

- A. Check the Status Indicator: Verify signal indicating readiness for use.
- B. Ensure all supplies, accessories, and spare parts are present and in operating condition.
- C. Check expiration dates and any obvious signs of damage
- D. Inspect the exterior and connector for signs of damage
- E. Document the above (See AED Coordinator Duties, Section 5.2B, above).

APPENDIX C – ADVERSE WEATHER INFORMATION**WEATHER DELAY AND CLOSURE INFORMATION
FOR EMPLOYEES****AT HOME**

Dryden Events and Employee Emergency Notification Hot Line	(661) 276-2777
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Note: Listen closely because conditions may differ between the DFRC main campus, DAOF, and the AERO Institute.

DFRC Public Web Site http://www.nasa.gov/centers/dryden/home/int_weather.html

This can also be accessed via a link on the lower left side of the DFRC public web site home page.

Edwards AFB Closure – Straight Talk Line	(661) 276-2345
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AT WORK

Email and PA announcements

WEATHER INFORMATION SOURCES FOR DECISION MAKERS	
Protective Services Post 1 (DFRC)	(661) 276-3256
Protective Services Post 2 (DAOF)	(661) 276-5504
EAFB West Gate Guard Post	(661) 277-8297
EAFB Command Post Request EAFB road, weather, and/or closure status.	(661) 277-3040
EAFB Security Force Squadron	(661) 277-3340
EAFB Weather Station	(661) 277-4472
Los Angeles County Sheriff's Stations Request local surface street and traffic conditions in the Antelope Valley area.	
• Lancaster	(661) 948-8466
• Palmdale	(661) 267-4300
Cal Trans Road Conditions	(800) 427-7623
California Highway Patrol The local California Highway Patrol offices do not accept nonemergency or informational calls before 8:00 am.	(661) 948-8541
Highway Condition Information Center This contact number connects to a recorded message that may be 4 to 6 hours old. This source may provide additional commuter information for freeways and outlying areas.	(916) 445-1534
CHP Traffic Incident Information	http://cadlchp.ca.gov/default.asp
Caltrans Road Conditions	http://www.dot.ca.gov/cgi-bin/roads.cgi
Weather by city or zip code	http://www.weather.com/

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**RECOMMENDED MESSAGES FOR THE
DFRC PUBLIC WEB SITE & DFRC HOT LINE**

1. The DFRC, DAOF, and AERO Institute are open for a normal workday. Alternate shift employees should check for status updates after 1:00 PM. Contract employees should contact their management for direction.
2. The DFRC, DAOF, and AERO Institute are open for a normal workday. DFRC personnel are advised to use caution when traveling to work due to possible adverse road conditions. Alternate shift employees should check for status updates after 1:00 PM. Contract employees should contact their management for direction.
3. The DFRC, DAOF, and AERO Institute will have a delayed start time of (a definite time will be specified). DFRC personnel are advised to use caution when traveling to work due to possible adverse road conditions. Contract employees should contact their management for direction.
4. The DFRC, DAOF, and AERO Institute are considering closure. DFRC personnel are to stand by for an announcement at (specify time). Contract employees should contact their management for direction. Only essential personnel are to report to work until further notice. Alternate shift employees should check for status updates after 1:00 PM.
5. The DFRC, DAOF, and AERO Institute are closed for the day. Contract employees should contact their management for direction. Only essential personnel are to report to work. Alternate shift employees should check for status updates after 1:00 PM.
6. DFRC is open for a normal workday; however, the DAOF and AERO Institute are closed today due to severe weather in the Palmdale area. Only essential personnel are to report to work until further notice. Alternate shift employees should check for status updates after 1:00 PM. Contract employees should contact their management for direction.
7. The DAOF and AERO Institute are open for a normal work day; however, the DFRC is closed today due to severe weather conditions. Only essential personnel are to report to work until further notice. Alternate shift employees should check for status updates after 1:00 PM. Contract employees should contact their management for direction.

TARGET SCHEDULE TO DETERMINE DFRC MODIFIED WORK DAY STATUS	
04:00 AM	SH&E Office (Code SH) Checks Conditions
04:30 AM	SH&E Office Calls Senior Official
04:45 AM	Senior Official Makes Closure or Other Decision
04:45 AM	Senior Official Calls Strategic Communications Office
05:00 AM	Strategic Communications Office Performs Notification (Event line, web page, DFRC Protective Services)

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Document History Log
IPP Review Date: 02-17-11

This page is for informational purposes and does not have to be retained with the document

Status Change	Document Revision	Effective Date	Page	Description of Change
Baseline		04-01-11		Replaces DCP-S-110, DCP-X-004, and DOP-S-024: Integrates several emergency response procedures to cover medical emergencies, chemical spills, fires, and adverse weather conditions.

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