Note: 1/11/2010 - Admin change to correct Table 3-1. KDP-KSC-P-3010, KDP-KSC-P-3014, and KDP-KSC-P-3015 titles were corrected and KDP-KSC-P-3019 was added to the table.
Note: 7/12/2010 – Admin change to correct the title of KDP-KSC-P-3014 on Table 3-1.

Kennedy NASA Procedural Requirements

Effective Date: **May 18, 2009**

Expiration Date: **May 28, 2014**

Responsible Office: Director, Center Operations

COMPREHENSIVE EMERGENCY MANAGEMENT PLAN (CEMP)

National Aeronautics and Space Administration

John F. Kennedy Space Center

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P.1 PURPOSE

This KSC NASA Procedural Requirement (KNPR) establishes uniform requirements for the effective preparation for, mitigation of, response to, and recovery from a variety of emergency situations. The CEMP establishes requirements and responsibilities for response to major emergencies where multiple emergency response forces and supporting agencies are involved.

P.2 APPLICABILITY

a. The CEMP applies to NASA and NASA contractor organizations, and other government agencies and contractors operating within the boundaries of KSC.

b. The CEMP is applicable when NASA and NASA contractor organizations develop internal supplemental emergency plans, standard operating procedures, or emergency checklists. The Kennedy Documented Procedures (KDPs) listed in Table 3-1 of this plan apply to all emergency responders at KSC.

P.3 AUTHORITY

a. 42 United States Code (U.S.C.) 2473(c) (1), Section 203(c) (1), of the National Aeronautics and Space Act of 1958, as amended.

b. Executive Order 12472, dated April 3, 1984, Assignment of National Security and Emergency Preparedness Telecommunications Functions, (3 Code of Federal Regulations (CFR) 1984 Compilation).

c. Executive Order 12656 dated November 18, 1988, Assignment of Emergency Preparedness Responsibilities.

d. National Response Framework, January 2008, Federal Emergency Management Agency (FEMA).

e. Department of Homeland Security (DHS), Federal Emergency Management Agency (FEMA), National Incident Management System (NIMS) – December 2008.

f. NPD 8710.1, Emergency Preparedness Program.

g. NPR 8715.2, NASA Emergency Preparedness Procedural Requirements.

P.4 APPLICABLE DOCUMENTS

a. NPD 1040.1, NASA Continuity of Operations (COOP)

b. NPD 1000.3, NASA Organization

c. NPR 1441.1, NASA Records Retention

d. KNPR 4000.1, Supply and Equipment System Manual

e. KSC-KDP-P-3001 – 3018 (see Table 3.1)

f. Homeland Security Presidential Directive (HSPD) and HSPD-5

g. National Response Framework, (NRF) Resource Center (Replaces the National Response Plan)

h. Occupational Safety and Health Administration (OSHA), Employee Emergency Plans 29, CFR 1910.38

i. OSHA, Hazardous Waste Operations and Emergency Response, 29 CFR 1910.120, paragraph (q)

P.5 CANCELLATION

This document cancels JHB 2000, Revision D, Consolidated Comprehensive Emergency Management Plan (CCEMP).

Original signed by
Michael J. Benik
Director, Center Operations

CHAPTER 1. BASIC EMERGENCY MANAGEMENT

This KNPR specifies actions to support the KSC mission under emergency conditions and follows the response protocol outlined in the National Response Framework (NRF) and the National Incident Management System (NIMS). This KNPR outlines procedural requirements for implementing the KSC Emergency Management Program (EMP), per NPD 8710.1, Emergency Preparedness Program and NPR 8715.2, NASA Emergency Preparedness Procedural Requirements. Following the provisions of Executive Orders 12472, 12148 and 12656, NASA shall establish emergency preparedness, response, recovery, and mitigation procedures that:

a. Protect lives.
b. Protect the environment.
c. Minimize loss and damage to NASA resources.
d. Provide for continuous operation or timely resumption of mission-critical functions, services, and infrastructure.
e. Aid in the recovery and timely resumption of normal operations.
f. Assist in mitigating hazards and minimizing the effects of natural disasters and technological emergencies.
g. Support local, state, and Federal agencies and appropriate emergency response authorities.

CHAPTER 2. SITUATIONS AND ASSUMPTIONS

2.1 Situations

2.1.1 Hazardous operations at KSC take place at different locations and could potentially result in wide-ranging emergencies and disruptive events. Site-specific emergency management plans, other than the KDPs listed in Table 3-1 of this document, are developed by each organization conducting hazardous operations and processes. Copies of these plans are provided to the NASA Emergency Management Officer (NEMO) for review and approval. The NEMO retains these documents for dissemination to emergency responders.

2.1.2 NASA-KSC and contractor activities, where specified by contract, develop and maintain an all-hazards emergency preparedness, response, mitigation, and recovery program. The program is based on documented plans and procedures that are reviewed by the NEMO which address the seven NIMS components described in KDP-KSC-P-3018, NIMS Component Structure at KSC, Chapter 3 of the CEMP, and other Federal requirements/directives.

2.1.3 NASA is required to provide interagency support in accordance with the NRF. The NRF supersedes the National Response Plan. These support services are coordinated through the multi-agency coordinating system. Local and regional interagency support may also be requested from NASA Headquarters and other NASA Centers in accordance with mutual aid and memorandums of agreement.

2.2 Assumptions

2.2.1 Any of the incidents identified in the KSC Hazard Threat Analysis (Table 4.1) may cause large numbers of casualties, great loss of property, or degradation of the NASA mission.

2.2.2 KSC has continuous potential exposure to known hazards.

2.2.3 KSC must be adequately and reasonably prepared to carry out initial disaster response and short-term recovery actions on an independent basis. Outside assistance may be available for emergencies affecting KSC.

2.2.4 National emergencies or disasters that may affect KSC can occur at any time. For some events such as hurricanes or flooding, dissemination of warning and increased readiness measures may be possible. Other events, such as tornadoes, lightning strikes, acts of terrorism, or civil disturbances may occur without warning.

2.2.5 Senior Management officials recognize their responsibilities for the safety and well being of employees and the public and execute their responsibilities in the planning, implementation, and maintenance of the CEMP.

2.2.6 Proper implementation of this plan will help reduce or prevent further injury to personnel, loss of life, damage to the environment and critical infrastructure, and the disruption of mission essential functions and services.

2.2.7 The NASA Protective Services Contract (NPSC), Emergency Management Office, is the primary contractor support to the Emergency Management Program at KSC.

2.2.8 Each major KSC contractor provides a point of contact to the NPSC Emergency Management Office. These points of contact function as the emergency coordinator for their respective company.

2.2.9 All personnel having the designation of “emergency responder” have completed and maintain the requisite training in accordance with NIMS, in order to satisfy the requirements as an emergency responder at KSC. See KDP-KSC-P-3018 for the NIMS training requirements at KSC.

2.2.10 Normal administrative policies and procedures may not be adequate during emergencies.

CHAPTER 3. CONCEPT OF OPERATIONS

3.1 Office of Security and Program Protection (OSPP)

At the Agency level, NPR 8715.2, NASA Emergency Preparedness Program Procedural Requirements requires the OSPP to coordinate all Agency responses to the multi-agency coordinating system, as outlined in the NRF, and coordinates planning and support between NASA Centers and other Federal departments and agencies. The Assistant Administrator (AA) for the OSPP is responsible for the overall management of the NASA Emergency Management Program (EMP). Each Center Director shall ensure development of that portion of the EMP applicable to the mission and needs of their respective Center.

3.2 KSC Emergency Management

KSC employs a fully operational emergency response capability, ready to respond to local emergencies and major natural or technological disasters on KSC property or at other NASA Centers. The KSC emergency responders are capable of supporting the appropriate tasking (per the NRF) as coordinated through the Headquarters Emergency Operations Center (EOC).

3.2.1 At KSC, the Emergency Management Planning Committee (EMPC) is responsible for planning, developing exercises, and recommending changes and modifications to the CEMP. The NEMO chairs this committee and the NPSC provides the secretariat support and administration of the EPPC.

3.2.2 At KSC, the tenets of the NIMS Incident Command System have been adopted and incorporated in all KDPs for emergencies, as described in KDP-KSC-P-3018, NIMS Component Structure at KSC. These KDPs are an extension of the CEMP. KDP-KSC-P-3001 through 3018 are online and accessible through the KSC Business World at: http://businessworld.ksc.nasa.gov/ (See table 3.1 of this document).

3.2.3 A State of Emergency Declaration, often given by local, state and federal entities, is a management procedure during an emergency. If the emergency is a natural or technological disaster that exceeds KSC response capabilities, the KSC Center Director or designee declares a state of emergency, initiates coordination with local emergency response agencies, and notifies the OSPP both during and outside normal work hours. The OSPP notifies the NASA Administrator and appropriate Mission Support and Mission Directorate offices and requests and coordinates assistance from other NASA organizations and Federal agencies as necessary. The KSC EOC makes contact with the local Brevard County and Headquarters EOC during response to, and recovery from the disaster.

Table 3-1, Kennedy Documented Procedures For Emergencies

Short Title	Procedure Number	Short Title	Procedure Number
Warning, Alerting, and Evacuation	KDP-KSC-P-3001	Radiological Emergency	KDP-KSC-P-3011
Direction, Control, and Communications	KDP-KSC-P-3002	Loss of Utilities	KDP-KSC-P-3012
Fire Response	KDP-KSC-P-3003	Weapons of Mass Destruction	KDP-KSC-P-3013
Launch Accidents	KDP-KSC-P-3004	Emergency Procedures Document for Process Safety Management Facilities	KDP-KSC-P-3014
Adverse Weather	KDP-KSC-P-3005	Mutual Aid Assistance for Emergency Support	KDP-KSC-P-3015
Tropical Storm/ Hurricane Preparation	KDP-KSC-P-3006	Mass Casualty Response	KDP-KSC-P-3016
Damage Assessment	KDP-KSC-P-3007	Tsunami Response	KDP-KSC-P-3017
Hazardous Materials Response	KDP-KSC-P-3008	NIMS Component Structure at KSC	KDP-KSC-P-3018
Aircraft Emergencies	KDP-KSC-P-3009	Pandemic Response Plan	KDP-KSC-P-3019
Emergency Recovery Operations	KDP-KSC-P-3010		

3.3 NIMS Component Requirements at KSC

In compliance with HSPD-5, KSC has adopted NIMS as the response structure for all emergencies at KSC including the emergency support functions listed in the NRF and the KDPs listed in Table 3-1 of this plan. A complete description of NIMS is provided by the Department of Homeland Security in FEMA document FEMA 501.

NIMS is the standard on-scene, all-hazards incident management system for firefighters, hazardous materials and rescue teams, security and law enforcement, and emergency medical teams. This includes initial reporting and dispatch from the Protective Services Control Center (PSCC) followed by activation of the EOC. The NIMS structure and basic components adopted at KSC are contained in KDP-KSC-P-3018. The components include:

a. Command and Management
b. Preparedness
c. Training, Exercises, and Drills
d. Resource Management
e. Communications and Information Management
f. Support Technologies
g. Unified Command Structure

CHAPTER 4. PHASES OF EMERGENCY MANAGEMENT

KSC complies with the Phases of Emergency Management described in NPR 8715.2, NASA Emergency Preparedness Procedural Requirements. The phases described are mitigation, preparedness, response, and recovery. These are addressed in paragraphs 4.1 through 4.4 below.

4.1 Mitigation

Mitigation activities are designed to prevent an emergency by minimizing adverse impacts through a combination of risk assessment and preventive measures. The actions that have been implemented at KSC to mitigate risk are as follows:

a. Identification of approximately 30 mission-critical functions, services, and infrastructure have been included in a mission essential infrastructure list. Shuttering and hardening these facilities for hurricanes are identified in KDP-KSC-P-3006.

b. KSC complies with Federal and NASA regulations and state or local codes where applicable. A list of all compliance documents are included in contracts, construction projects, and programs at KSC. Online access to the National Fire Protection Association and Occupational Safety and Health Administration directives are available to employees as well as an online Materials Safety Data Sheet (MSDS) registry.

c. A Center-wide Paging and Area Warning System (PAWS), Tornado Area Warning System (TAWS), and a pop-up desktop warning message are used to notify employees of an emergency. Bells, lights, sirens and other warning devices are used in hazardous operations facilities to warn employees. Evacuation procedures are online for employees to review and each employee participates in an evacuation drill annually.

d. A scientific study has been conducted on mission essential facilities at KSC in regards to wind and storm surge damages. Major upgrades to flight hardware facilities, and enhancements to the EOC have provided a greater survive-to-operate posture to valuable mission resources. The NEMO maintains the documentation on these studies.

e. Facility strengthening and storm protection are a major concern in designing new projects and renovating existing facilities at KSC. Alarm detection systems and fire suppression systems are a mandated requirement for new construction on KSC.

f. Specific threat levels at KSC warrant an elevation in protection for employees. Established documented procedures are developed and posted to meet the specific threat level.

g. KSC has developed approximately 16 Mutual Aid and Memorandums of Agreement, Joint Operating Procedures and Memorandums of Understanding with local city, county, and other government and state entities for support during an emergency. These agreements and memorandums are maintained by the NASA Protective Services Office.

4.2 Preparedness

KSC has established preparedness activities, programs, plans, and systems to ensure readiness and enhance response capabilities to an emergency or disaster. To achieve this goal, KSC has developed an Emergency Management Program that includes the following:

a. A Comprehensive Emergency Management Plan and Center Emergency Management Program Manager (EMPM). At KSC, the NEMO is the KSC Emergency Management Program Manager

b. KSC has conducted a threat identification and analysis. See Table 4-1, KSC Hazard/Threat identification for specific threats, probabilities, and vulnerabilities.

c. KSC has identified a list of unique resources available to support emergencies. The list is very extensive and is maintained by the NPSC. The list is provided to the Headquarters EOC for Agency use in supporting other NASA Centers during a disaster.

d. Required NIMS training has been identified and a procedure established to complete the training. The NIMS training completion is documented in the WEBEOC software maintained by the NPSC. See KDP-KSC-P-3018 for KSC NIMS.

e. Exercises and drills are required by NIMS and accomplished by several different training assessment groups and committees as outlined in KDP-KSC-P-3018. Drills and exercises are planned, evaluated, and documented.

Table 4-1. KSC Hazard/Threat Identification

POSSIBLE HAZARD	PROBABILITY	VULNERABILITY	WORST THREATS	COMMENTS
Fire/ Explosion	High	Disaster	X	Elevated Potential
Utilities Failure	Medium	Emergency		
Water Supply Contamination	Medium	Emergency		
Flood	Medium	Emergency		
Aircraft Crash	Medium	Disaster		
Attack (Nuclear Or Conventional)	Low	Disaster		
Launch Vehicle Accident	Medium	Disaster	X	National Attention
Tornado	High	Disaster	X	
Hazardous Materials	High	Disaster	X	Worst Case: Launch Operations
Radiological Incident	Low	Emergency		
Chemical/Biological Warfare	Low	Disaster		

POSSIBLE HAZARD	PROBABILITY	VULNERABILITY	WORST THREATS	COMMENTS
Highway/Transport Accidents	Medium	Emergency		
Wildfire	Medium	Emergency		
Civil Disorder	Low	Emergency		
Terrorism	Low	Emergency		
Hurricane/Tropical Storm	High	Disaster	X	Occurs Frequently

4.3 Response

The KDPs listed in Table 3-1 of this document contain procedures and checklists to support the specific emergency response activity. These include, but are not limited to, the following:

a. Activation of KSC emergency response teams and mobilization of designated first responders and essential follow-on support personnel as depicted in Table 4-2.

b. Establishing a primary and alternate EOC. See Paragraph 4.3.1 below.

c. Use of the KDP-KSC-P-3018, NIMS Component Structure at KSC, as the designated response operating protocol and use of the standardized ICS documentation forms contained within the KDP.

d. Coordination with KSC internal organizations, interagency response and management teams, as well as with local, state, and Federal agencies.

e. Use of the ICS, as shown in Diagram 1 of this document.

Table 4-2, First Responder and Available Follow-on Support.

Initial/First Responders	Follow-on Support
Fire Department	Emergency Management
Emergency Medical/Firefighter Paramedics	Facility Support, Public Works
Security	Liquid Propellants
	Photographic/Video Support
	Appropriate Safety Representative (Contractor and NASA)
	Hazardous Materials, Spill, Leak, Cleanup Support
	Launch Processing Technical Support
	Transportation
	Roads and Grounds
	Environmental Health Services

4.3.1 Activating the EOC (See Table 4-3).

a. The KSC EOC serves as the central management and support center for emergency operations. The primary EOC is located in Building K6-900, Room 2R21. The alternate EOC is located in Building M7-355, Room 4297. The Emergency

Support Function (ESF) representatives may be called to the EOC to coordinate resources requested by the IC. See Table 4-3 for ESF crosswalk. Once activated, the EOC Manager shall:

1) Coordinate resources necessary to support the IC.

ESF	Title	Responsible Party
	EOC Manager	**NEMO**
ESF 1	Transportation	ISC
ESF 2	Communication	IMCS
ESF 3	Public Works & Engineering	ISC
ESF 4	Firefighting	Fire
ESF 5	Emergency Management	NEMO, NPSC, NTD, CTC, STM
ESF 6	Mass Care, Housing, & Human Services	MESC
ESF 7	Resource Support	ISC
ESF 8	Public Health and Medical Services	MESC
ESF 9	Urban Search & Rescue	Fire
ESF 10	Oil & HAZMAT Response	Fire
ESF 11	Agriculture & Natural Resources	MESC
ESF 12	Energy	ISC
ESF 13	Public Safety and Security	Security
ESF 14	Long Term Community Recovery / Mitigation	NEMO
ESF 15	External Affairs	XA

2) Provide status reporting to KSC management authorities.

3) Notify and report to outside authorities, as required.

Table 4-3 Emergency Support Function Crosswalk

4.3.2 The IC has the responsibility and authority to:

1) Conduct an overall assessment of the situation.

2) Assume command and control of the emergency.

3) Direct implementation of the CEMP and applicable KDPs.

4) Determine response strategies and the Incident Action Plan.

5) Activate necessary resources to respond to the emergency.

6) Order an evacuation of the affected areas.

7) Oversee all incident response activities (see Diagram 1 and 2).

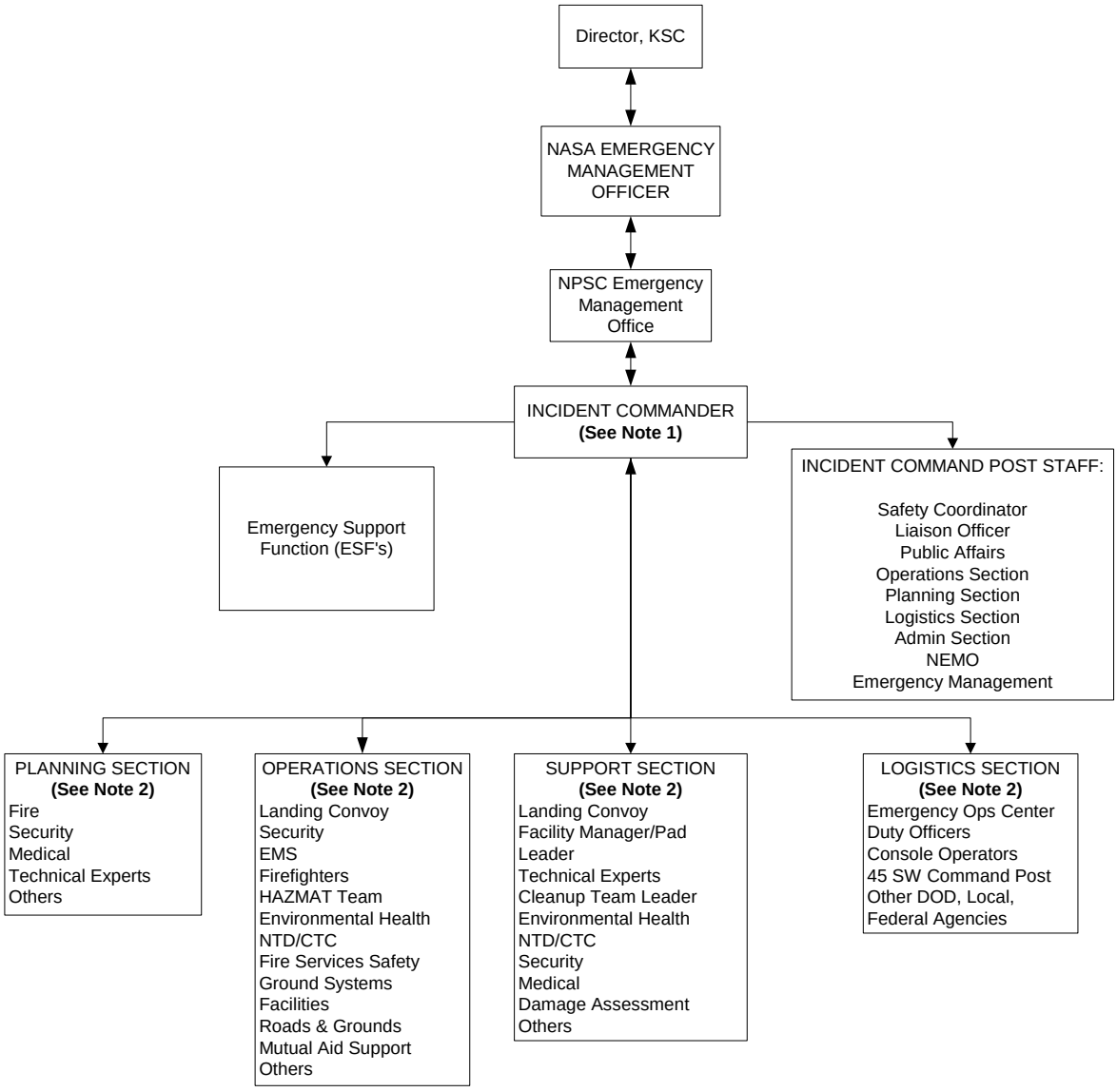
8) Commandeer support vehicles and equipment to support the emergency.

NOTE: During launch vehicle operations and hazardous processing operations in the LC-39 area, the NASA Test Director (NTD) or Chief Test Conductor (CTC) exercises management and control of emergency systems and initial response operations until the arrival of the IC. While in response the NTD/CTC advises the IC of the emergency situation, potential hazards and personnel not accounted for. Once the IC arrives and establishes

command of emergency operations and response, the NTD/CTC will continue to coordinate with and provide information and support to the IC.

Diagram 1

INCIDENT COMMAND SYSTEM

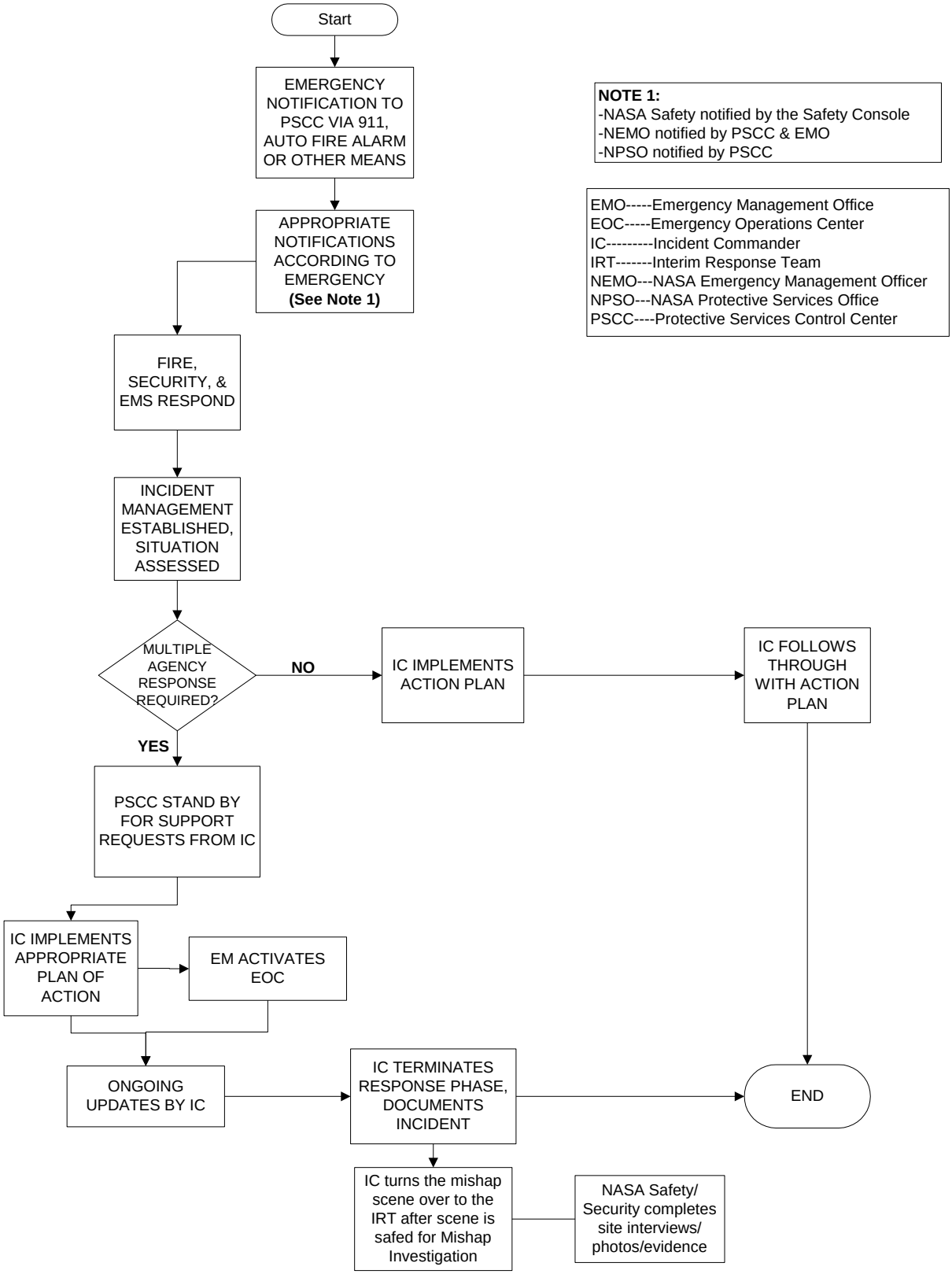


Note 1:
At KSC the IC will be the Senior Fire Official except for security emergencies, such as bomb threats, hostage/hijack, acts of terrorism, and other civil disturbances that warrant a possible show of force or use of weapons. In which case the IC will be the senior security officer on-scene.

Note 2:
Subsection Leaders may be developed by the IC in support of the National Incident Management System

Diagram 2

EMERGENCY RESPONSE FLOW



4.4 Recovery

Recovery is the activity or phase that involves restoring all systems to normal. Short-term recovery involves returning vital systems to minimum operating standards. Long-term recovery may take days, weeks or years. Refer to KDP-KSC-P-3007, Damage Assessment and KDP-KSC-P-3010, Recovery, for these procedures.

4.4.1 Short-and long-term continuance of the KSC mission-critical functions, services, and infrastructure are addressed in organizational Continuity of Operations plans (COOP). Although COOP is addressed in Chapter 5 of this document, specific requirements needed to sustain the identified mission essential infrastructure at KSC are not addressed in this CEMP. NPR 1040.1, NASA Continuity of Operations (COOP) Planning Requirements provides amplification of specific COOP planning requirements.

4.4.2 A process for ensuring appropriate reporting on expenditures to the Comptroller, NASA Office of the Chief Financial Officer, is contained in KDP-P-3701, KSC Emergency Funding.

4.4.3 KSC's contingency packages for responding emergency personnel include recognized badges for access to other Centers, and KDP-KSC-P-3006 provides a list of personal items that emergency responders and ride out personnel should maintain.

4.4.4 The EOC identifies local and backup power generating and distribution facilities. Power generators are inventoried and a procedure for providing generators is delineated in KDP-KSC-P-3006.

4.4.5 At KSC, portable and fixed satellite radio phone, HF Radio, Ham Radio, and an emergency communication network have been established to ensure communications if power is lost. A secondary EOC is also identified as described in KDP-KSC-P-3002 and 3018.

4.4.6 At KSC, a special parking plan for Government vehicles and equipment is listed in KDP-KSC-P-3006.

4.4.7 The KSC EOC keeps periodic updates on damages and status of equipment in the WEBEOC. Teleconferences with HQ EOC throughout recovery occur at least every 6 hours.

4.4.8 Appropriate ICS forms and records are maintained by the KSC EOC in WEBEOC.

4.4.9 Disaster assistance can be requested by direction of the EOC through the Center Director.

CHAPTER 5. CENTER EMERGENCY MANAGEMENT RESPONSIBILITIES

The organization and assignment of responsibilities are listed in NPR 8715.2, NASA Emergency Preparedness Program Procedural Requirements. All NASA offices listed in Chapter 6 of NPR 8715.2, are responsible to support the NASA Emergency Management Program. These specific responsibilities will not be restated in the KSC CEMP. The Center Director responsibilities that have been delegated to the EMPM are addressed in the following paragraphs.

5.1 The KSC Center Director has delegated via KSC-DES-0056 an Emergency Preparedness Officer (EPO) who is responsible for the management of the Emergency Management Program. As the EMPM, this individual is assigned to the Center Operations Directorate, Protective Services Office, and is responsible to perform the following:

5.1.1 Manage the Emergency Management Program.

a. Ensure that all applicable individuals are properly trained to meet Federal regulatory requirements including the NIMS training requirements listed in KDP-KSC-P-3018. At KSC, the NPSC Emergency Management Office maintains the documentation and assists in the completion of this type of training.

b. Provide educational awareness and training to the employees. Monthly online awareness bulletins and training programs are provided to KSC employees by the NPSC. WEBEOC and Ride Out Team (ROT) training are examples of other types of training provided to employees.

c. Develop, establish, and coordinate the CEMP as the Chair of the EMPC. Members on the EMPC have received NIMS training and are capable of planning exercises, reviewing plans and evaluating capabilities. At KSC, the EMPC is a chartered committee.

d. Establish and maintain a functional EOC and alternate EOC, capable of being mobilized within two hours during normal duty hours. At KSC, the primary EOC is located in building K6-900, room 2R21, and the alternate EOC is located in building M7-355, room 4297. Both locations are equipped with all the communications and emergency response capabilities necessary to support a disaster at KSC.

e. Ensure the existence of an emergency response capability that operates within the NIMS protocols. KSC employs a fully equipped fire, security, and emergency medical response capability 24 hours a day, 7 days a week. See KDP-KSC-P-3018, for NIMS at KSC.

f. Ensure the CEMP addresses required reporting of hazardous material releases to regulating authorities. See KDP-KSC-P-3008, Hazardous Materials Response.

5.1.2 Provide program planning and response capability to:

a. Establish separate checklists and plans to cope with each known contingency. See KDPs 3001 through 3018 listed in Table 3-1, and contractor standard operating procedures.

b. Ensure procedures are in place to evacuate persons requiring assistance due to physical disabilities. See KDP-KSC-P-3001.

c. Identify parameters and levels for emergency response contingencies. See KDP-KSC-P-3002.

d. Establish and maintain environmental response protocol for likely types of hazardous materials and waste spills. See KDP-KSC-P-3008.

e. Establish and maintain resource lists including local data systems and telecommunications networks. See KDP-KSC-P-3002.

f. Assess potential hazardous material exposure and potential health effects of facility operations that could result in a significant emergency situation or disruptive event. The NEMO works closely with the Environmental Services Branch to ensure that all

hazardous locations, types, amounts and storage requirements are known to the emergency responders. A copy of this information is provided to the NEMO.

g. Abate the hazards within area of responsibility. At KSC these hazards are identified by walk through, drive around and recurring fire inspections. A Risk Analysis and Abatement Program are in place and ongoing to eliminate hazards.

h. Establish real-time Incident Action Plans (IAPs) that are developed in the EOC through the assistance of the IC. The IC, who is on the ground at the scene, coordinates the IAP with the IC staff and the EOC.

5.1.3 Conduct program reviews to:

a. Ensure all required offices are involved in Center emergency plan development. At KSC, the CEMP is coordinated with all offices that have a role in emergency response.

b. Ensure the hazard and threat analyses, specific to the Center, are reviewed annually and updated as appropriate. At KSC the analyses are reviewed by the NASA Protective Services Office annually.

c. Ensure annual reviews of emergency preparedness and emergency response procedures are current and provide copies to the OSPP. A memorandum reporting this is provided annually (through the Director, Center Operations) to the AA for the OSPP no later than September 30.

d. Provide notice (through the Director, Center Operations) to the AA for the OSPP whenever emergency response and recovery capabilities become degraded below baseline capabilities.

5.1.4 Oversee the Emergency Management Program budget to:

a. Define budget requirements to the Director, Center Operations Directorate.

b. Ensure that appropriate resources, personnel, and funding are sufficient for the EMP.

5.1.5 Monitor the emergency preparedness training. This includes the following:

a. Advocating funding to conduct mandatory and elective training for all personnel involved in the Center EMP. This shall include applicable NIMS training for contracted fire department, EMT/paramedics, emergency management, and security and law enforcement personnel.

b. Identify and provide awareness training to the Center populace. This is accomplished at KSC by the NPSC population awareness training program.

c. Identify and train essential personnel and response teams. Establish and maintain a roster of essential personnel as an emergency operating record. At KSC, the NPSC is responsible for training specialized teams, such as the Emergency Response Team, HAZMAT Response Team, High Angle Rescue Team, Astronaut Rescue Team, Confined Space Rescue Team and specialized Emergency Medical Response Teams.
d. Establish an exercise design/evaluation group and conduct/document exercise and post-exercise critiques. At KSC, the Emergency Evacuation Training Assessment Group and the fire services training and inspection offices aid in accomplishing this task.

e. Conduct and document drills and exercises. Tabletop and full scale exercises are conducted at KSC to maintain proficiency in emergency response capabilities.

f. Participate in local- and state-level drill and exercise activities, such as the Local Emergency Planning Committee (LEPC). At KSC, the NEMO represents KSC as a voting member of the LEPC, State Emergency Response Commission.

5.1.6 Establish and maintain the emergency response capability. This includes the following:

a. Adopt and implement the NIMS concepts and protocols in applicable emergency plans. At KSC, NIMS is mandated by the requirements of KDP-KSC-P-3018.

b. Provide public address and emergency warning systems/alerts per 29 CFR 1910.165. KSC maintains and operate an effective Paging and Area Warning System that complies with 29 CFR 1910.165.

c. Ensure baseline interoperable communications capabilities exist and are maintained for use during an emergency. This shall include:

1) A high-frequency radio station and trained operators available during an emergency who participate in the SHARES and NASA High Frequency Network transmissions. At KSC, this radio is located and operated in the primary EOC. Monthly tests with the SHARES network are accomplished by the NPSC.

2) Participation by designated senior leadership team members and emergency essential personnel in the Government Emergency Telecommunication System (GETS). GETS cards have been issued to applicable senior managers at KSC. The NEMO manages this program at KSC.

3) Availability of at least two satellite telephones assigned for use to designated emergency management personnel and ready for use at all times. At KSC, satellite radio/phones are located on console in the primary EOC. KSC maintains 10 portable satellite telephones assigned to the NEMO for use in the EMP.

4) Ensuring the operability of critical telecommunication and information system assets, including the provision of backup power generation and other utility services. At KSC, the emergency communications network is tested annually before the start of hurricane season. Backup power is provided in designated facilities by means of a utility annex or backup generators.

d. Responding to medical emergencies and providing medical surveillance. At KSC, the fulltime fire services organization is equipped with Advance Life Support (ALS) ambulances staffed by licensed firefighter/paramedics.

e. Developing and maintaining a 24-hour emergency communication capability. KSC operates an emergency communication network with backup power, satellite radio phones, HF radio, and Ham radio capabilities. During disasters, KSC provides a NASA liaison who sits at a console in the Brevard County EOC.

f. Securing vital and classified records in accordance with the appropriate NASA policies. At KSC, the NEMO works closely with the KSC Records Manager who is responsible for the preservation of records on KSC.

g. Provide the OSPP with a roster of essential points of contact during and outside normal business hours. At KSC the NEMO provides a roster to the Headquarters EMPM and updates it as changes occur.

5.1.7 Perform damage assessment and recovery. KSC has established a specialized Damage Assessment and Recovery Team (DART) comprised of a multi-disciplined, uniquely specialized group of volunteers who accomplish the following:

a. Coordinate development and integration of information systems disaster recovery plans for critical services and missions.

b. Establish protocol to report damage assessment and forward assessment to local senior management as well as the OSPP or the Headquarters EOC, if mobilized. At KSC, the DART assesses damages and reports the damages to WEBEOC. The applicable ISC engineering and facilities personnel compile all the damages, provide an estimated cost, and the list is provided to senior management through the NEMO to the Director of Center Operations.

c. Establish criteria for obtaining the resources necessary to recover from an emergency situation.

d. Develop and implement mutual aid agreements with local, state, and other Federal agencies, and the appropriate emergency response authorities. At KSC, mutual aid agreements that involve fire, security, emergency medical and emergency management are developed and maintained by the NASA Protective Services Office.

e. Prioritize post-event damage assessment and immediate facility dispositions (i.e. restore, shutdown or vacate). At KSC, the Center Operations Directorate, through the ISC, recommends restoration, shutdown, and/or vacating a facility based on the assessed damages.

f. Provide pre-incident preparations and post-incident critiques and after-actions reports. At KSC, each incident is briefed to the NASA Protective Services Office for dissemination to the appropriate levels of management.

CHAPTER 6. CONTINUITY OF OPERATIONS PLANNING

6.1 Compliance

NPR 1040.1, NASA COOP Planning Procedural Requirements, provides amplification of specific COOP requirement details. The intent of Chapter 6 is to link emergency response with continuity planning. Some situations shall dictate simultaneous operations in both the emergency response and COOP arenas. The goal is to avoid conflicts over the use of people, resources, and critical systems necessary to achieve successful outcomes in both readiness and continuity. COOPs may be developed as either an annex to the master emergency management plan or as a stand-alone document. At KSC, all COOPs are stand-alone documents.

KSC complies with NPR 1040.1, NASA COOP Planning Procedural Requirements, and NPD 1040.4, NASA Continuity of Operations. Mission essential functions, delegations of authority and management succession structure to support decision making during an emergency are covered in other NASA documents such as NPD 1000.3, The NASA Organization. Table 6-1

provides a crosswalk of NASA COOP requirements and where they are located. At KSC the COOP coordinator is the NASA Emergency Management Officer. KNPR 1040.3, Continuity of Operations Planning (COOP) Procedural Requirements is the prescribing directive for COOP at KSC.

Table 6.1, COOP Requirements Crosswalk

COOP Requirement	Location/Documentation
Direction, Control and Authority over KSC	KDP-KSC-P-3002, NPD 1040.4, NPR 1040.1, KSC CEPP
Delegation of Authority , Succession and Continuity of Government	NPD 1000.3, NASA Organization
Developing Mutual Aid and Memorandums of Agreement	Paragraphs 2.3.1, 4.1,g., and 5.1.6 of CEMP
Coordination with Local Support Organizations, other Centers, State and Federal Agencies	Chapter 3, Concept of Operations, CEMP
Transportation, Specialized Equipment, Logistics, and Real Property	Chapter 3, Concept of Operations, CEMP; KNPR 4000.1
Emergency Preparedness, Response, and Recovery	Chapter 4, CEMP, KDP-P-KSC 3001-3018
Coordinating Alerts, Warnings, and Evacuation Procedures	KDP-KSC-P-3001, Warning, Alerting, Evacuation
Communications	KDP-KSC-P-3002, Direction, Control, and Communications
Emergency Funding	KDP-P-3701, COOP Emergency Funding

APPENDIX A Definitions of Terms

Chief Test Conductor (CTC): The CTC is the United Space Alliance representative on duty 24 hours a day, 7 days a week, who is charged with protection of launch vehicles and associated hardware and facilities. The CTC staffs a console in the Launch Control Center (LCC) and monitors all activities in the Launch Complex 39 (LC-39) area. The CTC coordinates emergency responses associated with its operations and notifies the PSCC to obtain emergency response forces in the LC-39 area. Once the Fire Chief/Incident Commander arrives and establishes Incident Command, the CTC shall continue to coordinate with and provide information and support to the Incident Commander.

Control: The procedures, techniques, and methods used in the mitigation of a hazardous material incident, including containment, extinguishment, and confinement.

Contingency Plan: A developed document identifying and cataloging all elements required to respond to an emergency, defining responsibilities and specific tasks, and serving as a response guide.

Disaster/Emergency: The occurrence or imminent threat of widespread or severe damage, injury, or loss of life or property, resulting from any natural or technological event.

Emergency Management Phases:

1. Mitigation: Deals with any activities that prevent an emergency, reduce the chance of an emergency happening, or reduce the damaging effects of unavoidable emergencies.
2. Preparedness: Includes developing plans for what to do, where to go, or who to call for help before an event occurs.
3. Response: Personnel who are involved in responding to and controlling an emergency.
4. Recovery: Includes actions taken to return to normal operations following an emergency.

Emergency Management Office: The NASA Protective Services Contractor Emergency Management Office.

Emergency Management Planning Committee (EMPC): A KSC chartered committee designated in the KSC Business World in compliance with KNPD 1150.24, KSC Councils, Boards and Committees. This group of individuals bring a distinct area of expertise or area of concern to emergency preparedness situations in order to use a consistent integrated approach to prepare for natural and technological emergencies at KSC. The EMPC is responsible for reviewing current emergency preparedness procedures and establishing policy in all phases of emergency management for natural and technological hazards. The NASA Emergency Management Officer is the chair of the EMPC.

Emergency Responders: KSC Firefighters, security, paramedics, emergency medical technicians, public health professionals, and others as required, dispatched to the scene of an incident site.

Emergency Support Function (ESF): ESFs are groupings of capabilities into an organizational structure that provides the support, resources, program implementation, and services that are most likely to be needed during an incident. ESFs also serve as the primary operational-level mechanism that provides support during an incident.

High Value Resources: Launch vehicles, boosters, satellites, or orbital flight hardware. One of a kind ground support equipment.

Protective Services Control Center (PSCC): This control center is located at the KSC Launch Control Center (LCC), Building K6-900 Room 2P10. This area receives all emergency calls (911) on KSC and dispatches/notifies emergency responders according to Standard Operating Procedures.

Major Disaster: Any natural or technological catastrophe in any part of the United States or its territories which, in the determination of the President, causes damage of sufficient severity and magnitude to warrant assistance under Title 42, United States Code, Sections 5121-5204.

Mutual Aid Agreements: Arrangements between organizations, either public or private, for reciprocal aid and assistance in case of emergencies too great to be dealt with unassisted.

NASA Emergency Management Officer: NASA person responsible for Emergency Management on KSC. This individual is also known as the Emergency Management Program Manager, and is delegated in the KSC Business World as the Emergency Preparedness Officer and Center COOP Coordinator.

NASA Test Director (NTD): The NTD is the NASA representative on duty for Launch Processing. The NTD coordinates and notifies emergency response forces in the LC-39 area during specific NASA-managed operations. Once the Fire Chief/Incident Commander arrives and establishes Incident Command, the NTD shall then continue to coordinate with and provide information and support to the Incident Commander.

NASA Protective Services Office: Includes Center Security, Emergency Management, Fire Protection, Authority Having Jurisdiction, and the Continuity of Operations Coordinator.

Natural Disaster: An act of nature, such as a hurricane, tornado, or earthquake.

National Incident Management System: The Federal multi-layered command and control system used by the Incident Commander to manage KSC emergency responses.

Technological Disaster: A disaster resulting from technical operations and/or man-made technologies such as fires, hazardous materials leaks or spills, and chemical explosions.

Termination: That portion of Incident Management, following termination of all emergency response actions, in which personnel are involved in documenting safety procedures, site operations, hazards faced, and lessons learned from the incident. Termination is divided into three phases: debriefing the incident, post-incident analysis, and critiquing the incident.

Vulnerability: The degree to which people, property, the environment, or social and economic activity--in short, all elements at risk--are susceptible to injury, damage, disruption, or loss of life.

APPENDIX B. Acronyms

CD	Center Director
CFR	Code of Federal Regulations
COOP	Continuity of Operations Plan
CTC	Chief Test Conductor
DART	Damage Assessment and Recovery Team
DOD	Department of Defense
EETAG	Emergency Egress Training Advisory Group
EHS	Environmental Health Services
EMS	Emergency Medical Services
EOC	Emergency Operations Center
EPA	Environmental Protection Agency
EPEG	Emergency Preparedness Exercise Group
EMP	Emergency Management Program
EMPC	Emergency Management Planning Committee
ESF	Emergency Support Function
FEMA	Federal Emergency Management Agency
IC	Incident Commander
ICS	Incident Command System
IMCS	Informational Management & Communications Support
IRT	Incident Response Team
ISC	Institutional Services Contract
KSC	Kennedy Space Center
KNPR	Kennedy NASA Procedural Requirement
LAN	Local Area Network
LC	Launch Complex
LCC	Launch Control Center
LEPC	Local Emergency Planning Committee
MESC	Medical/Environmental Support Contract
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
NASA	National Aeronautics and Space Administration
NEMO	NASA Emergency Management Officer
NIMS	National Incident Management System
NPSC	NASA Protective Services Contract
NPD	NASA Policy Directive
NRF	National Response Framework
NTC	NASA Test Conductor
NTD	NASA Test Director
OPR	Office of Primary Responsibility
OSHA	Occupational Safety & Health Administration
PSCC	Protective Services Control Center
SHARES	Shared Resources
STE	Secure Terminal Equipment
UC	Unified Command
USCG	United States Coast Guard
WAN	Wide Area Network
WEBEOC	Web Based EOC software product