

MCP 8621.1
REVISION A
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MARSHALL CENTER PLAN

QD01

MSFC/MAF MISHAP PREPAREDNESS AND CONTINGENCY PLAN

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Document History Log

Status (Baseline/ Change/ Revalidation/ Revision)	Revision/ Change	Effective Date	Description
Baseline		1/14/2016	Mishap Preparedness and Contingency Plan for MSFC is being documented as a Marshall Center Plan.
Revision	A	3/16/2020	Complete rewrite in response to NCRs 1847, 1848, and 1853.

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1. PURPOSE

In accordance with NPR 8621.1, the MSFC Center Director and Program/Project Managers are responsible for developing mishap preparedness and contingency plans that provide requirements and procedures to cope with mishaps and close calls within their jurisdictions; to investigate, report the results, and to implement procedures that prevent recurrence.

1.1 This Mishap Preparedness and Contingency Plan (MPCP) provides information on required actions that personnel follow when a mishap or close call takes place on-site at MSFC, which includes both the Huntsville and Michoud Assembly Facility (MAF) locations. Requirements for reporting and investigating are established by Federal laws, NPR 8621.1 and MWI 8621.1.

1.2 Programs and projects, defined by NPR 7120.5, that operate offsite will have separate MPCPs that follow NPR 8621.1. These Program/Project MPCPs will include the requirements for the notification, reporting, investigation, and prevention policies for mishaps that occur offsite. The MSFC Industrial Safety Branch will review these program/project MPCPs and forward copies to the Office of Safety and Mission Assurance (OSMA) Mishap Investigation Program Executive after approval per NPR 8621.1.

2. APPLICABILITY

2.1 The provisions of this MPCP apply to all personnel who are involved in mishap and close call incidents as defined by NPR 8621.1 and MWI 8621.1, and that occur on-site at MSFC, either in Huntsville (referred to herein as ‘MSFC’) or at the Michoud Assembly Facility (referred to herein as ‘MAF’).

2.2 This MCP applies to personnel who have been designated to serve in the role of the MSFC/MAF Interim Response Team (IRT).

2.3 This MCP applies to the MAF.

2.4 This MCP applies as follows: all mandatory actions (i.e., requirements) are denoted by statements containing the term “shall.” The terms: “may” or “can” denote discretionary privilege or permission; “should” denotes a good practice and is recommended, but not required; “will” denotes expected outcome; and “are/is” denotes descriptive material.

2.5 This MCP applies the following: all document citations are assumed to be the latest version unless otherwise noted.

2.6 This MCP does not apply to Program/Project mishaps that occur offsite and are covered by a program/project MPCP.

2.7 Although this MPCP provides the framework for mishap or close call responses, it is not a substitute for the MSFC/MAF Emergency Management Plan (EMP) which addresses site-wide emergencies and provides procedures for preparedness, mitigation, response, and recovery

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efforts. Portions of both plans may occur simultaneously; however, the EMP will take precedence until the incident site has been declared safe by the Incident Commander (IC) and the incident command is turned over to the Interim Response Team (IRT) manager.

2.7.1 For emergencies that occur at MSFC, MCP 1040.2 describes the levels of response and actions to be taken in case of emergency, to protect life, Government property, and the environment.

2.7.2 For emergencies that occur at MAF, MCP 1040.4 describes the levels of response and actions to be taken in case of emergency, to protect life, Government property, and the environment. It also describes the steps to be taken by MAF tenants and contractors to safeguard both Government, and their property during all hazards response to the MAF.

3. AUTHORITY DOCUMENTS

3.1 NPR 8621.1, NASA Procedural Requirements for Mishap and Close Call Reporting, Investigating, and Recordkeeping

3.2 MWI 8621.1, Mishap and Close Call Reporting and Investigation Program

4. APPLICABLE DOCUMENTS AND FORMS

4.1 Privacy Act of 1974, 5 U.S.C. 552a

4.2 Occupational Safety and Health Act of 1970, as amended, 29 U.S.C. 668, Section 19

4.3 Recording and Reporting Occupational Injuries and Illnesses (U.S. Department of Labor, Occupational Safety and Health Administration), 29 CFR Part 1904

4.4 Occupational Safety and Health Standards, Toxic and Hazardous Substances, 29 CFR 1910.1200 (A.0)(1)(2)

4.5 Basic Program Elements for Federal Employee Occupational Safety and Health Programs and Related Matters, 29 CFR Part 1960

4.6 29 CFR pt 1904, Recording and Reporting Occupational Injuries and Illness Accident Investigation, 29 CFR 1904

4.7 49 CFR Part 830.5, Immediate Notification

4.8 NFS 1807, Acquisition Planning

4.9 NFS 1852.223-70, Safety and Health Measures and Mishap Reporting

4.10 NPR 3792.1, NASA Plan for a Drug-Free Workplace

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- 4.11 NPR 8715.1, NASA Occupational Safety and Health Program
- 4.12 NRRS 1441.1, NASA Records Retention Schedules
- 4.13 MPR 1830.1, Notification and Assistance to Next of Kin
- 4.14 MPR 8715.1, MSFC Safety, Health, and Environmental (SHE) Program
- 4.15 MWI 8621.1, Mishap and Close Call Reporting and Investigation Program
- 4.16 MCP 1040.2, MSFC Emergency Management Plan
- 4.17 MCP 1040.4, MAF Emergency Management Plan
- 4.18 QD-IS-009, Mishap and Close Call Reporting, Response, Notification and Investigation Process
- 4.19 MSFC Form 4515, Mishap/Incident Investigation Form
- 4.20 OSHA Form 300A, Summary of Work-Related Injuries and Illnesses

5. PLAN

5.1 This MPCP shall take precedence over any program/project MPCP for program/project mishaps that occur on-site at MSFC or MAF.

5.1.1 The program/project IRTs shall provide support to the MSFC or MAF IRT when requested and may assume control of the mishap site only when control is relinquished by the MSFC or MAF IRT.

5.1.2 Instructions for notifying, reporting, and investigating mishaps/close calls that occur at the Booster Fabrication Facility (BFF) and Hangar AF located at Kennedy Space Center will follow the program/project MPCP that governs the activities taking place at the BFF and Hangar AF.

5.2 KEY ROLES AND ORGANIZATIONAL RESPONSIBILITIES

5.2.1 Center Director

The Center Director has authority for all mishaps and close calls that involve programs and activities that fall under his/her responsibility. This includes determining the classification level for all mishaps and obtaining concurrence from the NASA Chief of OSMA for Type A, Type B, and high visibility mishaps and close calls.

5.2.1.1 The Center Director can assign a designee for the aforementioned responsibilities.

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5.2.1.2 The Center Director may serve as an Appointing Official (AO) who determines the Investigating Authority (IA).

5.2.2 Appointing Official (AO)

The Appointing Official is the official authorized to appoint the IA for a mishap or close call, to accept the investigation of another authority, to receive endorsements and comments from endorsing officials, and to approve the mishap report. The determination of who serves as the AO is described in NPR 8621.1, and this MPCP.

5.2.2.1 The NASA Administrator may elect to be the AO for Type A mishaps, or delegate to the Associate Administrator, Mission Directorate Associate Administrator, Center Director, or other designee.

5.2.2.2 The Center Director is the AO for Type B mishaps and high visibility close-calls, but may delegate this authority to the SMA Director.

5.2.2.3 For Type C or D mishaps or close calls that are high-visibility mishaps, for which a Mishap Investigation Team (MIT) or Mishap Investigation Board (MIB) is appointed, the SMA Director is the AO at MSFC and MAF.

5.2.2.4 For onsite (both MSFC and MAF) Type C or D mishaps, or close calls, that are not designated as high-visibility, the AO is delegated to the Mishap Investigation Program Manager (MIPM). See section 5.4.

5.2.2.5 The AO shall ensure that personnel who participate in investigations that involve classified information possess or obtain required access levels and security clearances.

5.2.3 Investigating Authority (IA)

The Investigating Authority is the individual mishap investigator, mishap investigation team, or mishap investigation board authorized to conduct an investigation for NASA. This includes the mishap investigation board chairperson, voting members and an ex officio but does not include the advisors and consultants.

5.2.3.1 The IA member selection shall follow the guidelines defined in NPR 8621.1. The duties of the IA are also defined in NPR 8621.1.

5.2.3.2 The Center's Investigation AO will determine if an appointed IA is necessary, in consultation with the MIPM.

5.2.3.3 If an appointed IA is determined necessary, the organization management where the mishap/close call occurred may be contacted by the AO for their assistance in recommending

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employees having the technical knowledge and expertise of the subject to participate in the subsequent investigation.

5.2.4 Mishap Investigation Program Manager (MIPM)

The MIPM provides advice, support, and oversight for MSFC mishap investigations. The MIPM also manages the Interim Response Team (IRT) and ensures that the resources are available to preserve evidence and protect the IRT at the incident scene. For Type C and Type D mishaps and close calls, the MIPM duties also include ensuring that the mishap investigation appointment and corrective action memorandum conforms to NPR 8621.1 and the mishap investigation reports are critiqued for content and compliance with NPR 8621.1.

5.2.4.1 The MIPM supports the formation of the IA for Type A, Type B, and high visibility mishaps and high visibility close calls.

5.2.4.2 The MIPM is delegated as AO for Type C and D mishaps and close calls that are not designated as high-visibility.

5.2.4.3 The initial information and facts gathered during the Center’s Safety Office preliminary investigation assists the MSFCs MIPM in determining if appointment of a formal IA is needed for incidents classified as a Type C, Type D mishaps, and those not considered as high-visibility close calls.

5.2.4.4 The MSFC MIPM will discuss the preliminary investigation information with the Center’s Investigation AO in cases where the Center’s MIPM feels a more in-depth investigation may be needed.

5.2.5 Interim Response Team (IRT)

The IRT gathers and protects all evidence for the IA. The IRT does not have an active role in safing the mishap site. IRT activities are crucial to the success of investigations. Their quick response, attention to detail, and collection and preservation of evidence provides valuable information to help the IA determine cause. The IRT manager and team leads are Government employees, but support contractors play key roles in the gathering and analysis of information. See Section 5.7 of this Instruction for additional IRT information.

5.2.5.1 At MSFC, the IRT consists of all the Safety Specialists.

5.2.5.2 At MAF, the IRT consists of Industrial Safety Specialist, SMA Mission Services contractor, MAF facility operations contractor and Emergency Management Specialist.

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5.2.5 Industrial Safety Branch

5.2.6.1 The Industrial Safety Branch performs the roles and responsibilities of the ‘Cognizant Safety Office’ from NPR 8621.1.

5.2.6.2 The individual Industrial Safety Specialist (or their backup) will serve as the IRT lead for their assigned zone in which the incident occurred.

5.2.6.3 The MAF Safety Manager is the NASA Federal employee serving as IRT lead (cognizant safety representative) and impound coordinator. He or she will initiate collection of witness statement documentation. Even as these duties may not require immediate presence at the mishap scene, they nevertheless include accountability for collected and preserved evidence.

5.3 TRAINING

5.3.1 The IRT, IA, voting members (at least one), ex officios, Human Factors members, advisors, and Safety members will meet the training requirements defined in section 1.4 of NPR 8621.1.

5.3.1.1 All MSFC IRT members shall complete MSFC specific IRT training. Training can be completed just in-time and will be specific to the event and location.

5.3.1.2 At time of incident, the lead IRT member will coordinate with the responsible organization to ensure that all IRT members have been trained or briefed on any unique hazards associated with that particular site or facility.

5.3.1.3 All MSFC IRT and IA members shall complete the following training:

- a. SMA-002-07 Overview of Mishap Investigations,
- b. SMA-002-08 Mishap Investigation Roles and Responsibilities,
- c. SMA-002-009 Completing the Investigation and Mishap Report,
- d. SMA-002-10 Introduction to Root Cause Analysis (valid for two years), and
- e. SMA-002-11 Interim Response Team Training.

5.3.1.4 Voting and ex officio members of IA shall complete SMA-SAFE-OSMA-4003 NASA Root Cause Analysis (within the last five years).

5.3.1.5 Human factor and ex officio members of IA shall complete:

- a. SMA-001-07 Introduction to Human Factors in Mishap and Close Call Investigation, and
- b. SMA-SAFE-OSMA-4004 Human Factors in Mishap Investigation (within the last five years).

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5.3.2 Physical and mental stress recognition training will be provided to IRT members, if needed. This training can be completed just in time and will be specific to the event and location.

5.4 INCIDENT CLASSIFICATION

An incident is a general term used to describe an unexpected event, mishap, or close call.

Classification Level	Property Damage	Injury
Type A Mishap	Total direct cost of mission failure and property damage equal to or greater than \$2,000,000, or Crewed aircraft hull loss has occurred, or Unexpected crewed aircraft departure from controlled flight has occurred, except when departure from controlled flight has been pre-briefed or mitigated through the flight test process inherent at each Center.	Occupational injury or illness that resulted in: a fatality or a permanent total disability.
Type B Mishap	Total direct cost of mission failure and property damage equal to or greater than \$500,000 but less than \$2,000,000	Occupational injury or illness resulting in: A permanent partial disability or Hospitalization for inpatient care of three or more people within 30 workdays of the mishap.
Type C Mishap	Total direct cost of mission failure and property damage equal to or greater than \$50,000 but less than \$500,000	Nonfatal occupational injury or illness that resulted in: Days away from work, not including the day or shift on which it occurred, or Restricted work, or transfer to another job, not including the day or shift on which it occurred, or Hospitalization for inpatient care of one or two people within 30 workdays of the mishap.
Type D Mishap	Total direct cost of mission failure and property damage equal to or	Any nonfatal, OSHA-recordable occupational injury or illness that does not

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	greater than \$20,000 but less than \$50,000	meet the definition of a Type C mishap.
Close Call	An event in which there is no equipment or property damage, or minor equipment or property damage of less than \$20,000, but which possesses a potential to cause a mishap.	No injury or only minor injury requiring first aid, but which possesses a potential to cause a mishap.

5.5 INCIDENT REPORTING

5.5.1 All personnel shall report emergencies.

5.5.1.1 At MSFC, report emergencies by calling 911. If you are calling from a non-MSFC network phone, inform the operator that you are located on MSFC and provide a location such as a building number or street name.

5.5.1.2 At MAF, report emergencies by calling 911. If the communication to EM is via a cellular phone to an outside 911 EM service, the calling party shall notify dispatch that the emergency is at the MAF and relate their location and information.

- a. The notifying party will relate to dispatch their location (building number, floor, column number and brief description of the nature of the emergency).
- b. Dispatch will notify the MAF Fire and Security forces to respond to the emergency.
- c. Dispatch will notify the MAF Safety department via radio of an ensuing emergency.

5.5.2 Report non-emergencies by any of the following methods:

5.5.2.1 At MSFC:

- a. Call the Safety Hotline at 4-HELP (4357) and select the “safety” option, or call (256) 544-0046.
- b. Use online submittal via MSFC’s “Explornet Homepage,” under “Support” select “Report a Safety Concern, Mishap or Close Call.” The link provides access to NASA Mishap Information System (NMIS). Reports may be directly input to the NASA NMIS via <http://nmis.sma.nasa.gov>.

5.5.2.2 At MAF:

Call the MAF Safety Office at (504)257-2333 or 7-2333 if using a MAF desk phone and provide building number, floor, column number and brief description of the nature of the emergency.

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5.5.3 The government supervisors of an employee involved in an incident or directly responsible for the facility/operation where the incident occurred, or the responsible safety manager for a contract shall ensure the incident is reported to the MSFC/MAF Safety Office within the following timelines:

5.5.3.1 No later than 1 hour of occurrence or awareness for an incident identified to include any of the following:

- a. An occupational injury or illness resulting in a fatality, permanent or partial disability, hospitalization for inpatient care of three or more people within 30 workdays of the incident;
- b. A potential total direct cost of mission failure or property damage equal to or greater than \$500,000; or
- c. Incident may be considered as a high-visibility event for NASA.

5.5.3.2 No later than 4 hours of occurrence or awareness for an incident identified to include any of the following:

- a. An occupational injury or illness resulting in a non-serious injury or first aid treatment;
- b. A potential total direct cost of mission failure or property damage less than \$500,000; or
- c. Incident not considered as a high-visibility event for NASA.

5.5.4 Employees who report incidents are encouraged to provide, at a minimum, the following information in their initial notification:

- a. Location and time of mishap.
- b. Number of fatalities and hospitalized or injured employees (if known).
- c. Company or MSFC organization contact person and phone number (if known).
- d. A brief description of what happened.

5.5.5 A safety specialist from the MSFC/MAF Industrial Safety Branch will determine the preliminary magnitude of the incident and will notify applicable NASA or Government officials in accordance with section 5.6 of this plan.

5.6. INCIDENT NOTIFICATION

5.6.1 Notify OSMA. After emergency response has been initiated and within one hour of a Type A or Type B mishap or a high-visibility mishap or close call, the Industrial Safety Branch shall

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notify OSMA by calling 1-321-861-2312, or, if no answer, by calling the NASA Headquarters After Hours Contact Center at 1-866-230-6272. During this notification, provide the following information:

- a. Center name.
- b. Location of incident.
- c. Time of incident.
- d. Number of fatalities, if known.
- e. Number of hospitalized employees, if known.
- f. Type of injury, if known.
- g. Type and estimate of damage, if known.
- h. Contact person and telephone number.
- i. Brief description of the mishap.

5.6.1.1 For Type A and Type B mishaps and high-visibility mishaps and close calls, also send an electronic notification to OSMA containing the information described above.

5.6.2 The NASA Administrator shall be notified within 24 hours when it becomes known there is a work-related fatality or serious injury/illness to a NASA employee, resident non-NASA employee, or resident contractor, NASA reportable Type A, Type B or high-visibility mishap/close call. The Center Director or designee may notify the NASA Administrator by phone and/or email.

5.6.3 The Occupational Safety and Health Administration (OSHA) shall be notified by the Industrial Safety Branch if a mishap/close call is determined to be a work-related OSHA reportable injury/illness and results in a death following the process described in NPR 8621.1.

5.6.4 OSHA shall be notified by the Contractor for contractor-related mishaps that require notification to OSHA following the process described in 29 CFR Part 1904. This notification is in addition to the notification to the Center's Safety Office. After notifying OSHA, inform OSMA that an oral report has been provided to OSHA.

5.6.5 The Center's Safety Office will notify the Center's Public Affairs Office of casualties, damages, and any potential hazards to the public when a Center incident may create a hazardous

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condition to areas outside of the Center’s jurisdiction. The Center’s Public Affairs Office will ensure mishap/close call and/or investigation information released to the public follows the process described in NPR 8621.1 and NASA regulations.

5.6.6 In cases where a mishap/close call is believed to be a result of criminal activity, the Center’s Safety Office shall ensure the Center’s Office of Chief Counsel and NASA Office of Inspector General are notified.

5.6.7 Center Program/Project management shall ensure post-mishap/close call notifications are made following the processes described in their Center Program/Project MPCP.

5.6.8 The supervisor(s) directly responsible for the facility/operation where the incident occurred and organization’s SHE Point of contact (POC) and/or organization’s NMIS POC shall ensure their organization’s Director/Manager and deputies are notified of the incident.

5.6.9 The organization’s SHE POC or organization’s NMIS POC will be notified of the mishap/close call by the Center’s Safety Office.

5.6.10 In cases when a mishap/close call occurs in an area outside of an organization’s assigned area, the supervisor directly responsible for the activity that caused or contributed to the mishap/close call shall ensure the organizational management assigned the area is informed of the incident.

5.6.11 Notification of a Center Program/Project-related incident will be provided to the Center Program/Project manager following the process described in NPR 8621.1 and the specific Program/Project MPCP.

5.6.12 Contractor notification timelines are described in the contract DRD for Mishap and Statistics Reporting (MSR) for NASA reportable mishaps/close calls as specified by NASA FAR Supplement (NFS) 1852.223-70 or other applicable NFS or Federal Acquisition Regulation clause included in their contract. (See NPR 8621.1 for more information.)

5.6.13 Reporting Requirements for Contractor and Partnership incidents.

5.6.13.1 At MSFC, Center organizations providing support or equipment/systems to a non-NASA outside organization that is on Center through a lease, Space Act Agreement, Cooperative Agreement or grant shall notify the Center’s Safety Office of the non-NASA organization’s incident as specified by the lease, Space Act Agreement, Cooperative Agreement or grant.

5.6.13.2 At MAF, contractors shall notify the MAF Safety Manager within an hour of the onset of an emergency. As a minimum, a "Flash Report" will be issued describing: what was the nature of the emergency, who was involved, when it happened, where it happened, and how.

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5.6.13.3 If there are injuries to personnel and, or damages to Government issued equipment, a brief description of injuries and damages shall be included.

5.6.14 Reporting Requirements for Incidents Involving Aircraft.

5.6.14.1 Industrial Safety Branch shall immediately notify MSFC Aviation Operations (in the MSFC SMA Directorate) of any incident (mishap or close call) that involves aircraft, including unmanned aircraft systems.

5.6.14.2 MSFC Aviation Operations will determine if the incident meets the criteria for a National Transportation Safety Board (NTSB)-defined accident (as defined in 49 CFR Part 830.5), and if so, coordinate with the appropriate authorities to accomplish the NTSB notification and reporting requirements, in accordance with NPR 8621.1.

5.7 THE INTERIM RESPONSE TEAM (IRT)

5.7.1 The MSFC and MAF IRTs exist to respond in the event of an onsite NASA Type A, Type B, or high visibility mishaps. The IRT is activated immediately when the incident is reported to the Safety Office.

5.7.2 The IRT provides support to emergency responders when directed by the IC and assumes control of the mishap site when control is relinquished by the IC.

5.7.3 Until the IA has been formed and selected support resources, the IRT will be responsible for impounding and preserving all data pertaining to the incident. The IA may choose not to continue using the IRT as its field investigation resource.

5.7.4 IRT personnel are assigned primary responsibilities, but those responsibilities can be changed based on availability, incident size, and number of active investigations. The role of the IRT manager can be reassigned by the respective manager or designee.

5.7.4.1 A Federal employee will serve as the IRT lead and impound lead and will initiate collection of witness statement documentation.

5.7.4.2 The IRT key positions are:

- a. IRT Lead
- b. Impound Lead
- c. Photographic Support
- d. Safety Support

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5.7.5 For Type C and Type D mishaps, and close-calls that are not high visibility, the Industrial Safety Branch will perform the role of both IRT and IA with the IRT lead performing all duties.

5.7.7 Upon activation the IRT shall:

5.7.7.1 Report to the Incident Command Post (ICP), where they will await instructions. Once the emergency is contained and an all clear is given by the Incident Commander (IC), the IRT will commence to evaluate the scene to determine the magnitude of the incident.

5.7.7.2 Conduct evidence preservation actions without affecting essential safety operations, document the scene, obtain witness statements, and collect debris.

5.7.7.3 Collect and impound, with cognizant Safety Office, supervisors, and PSO support, appropriate data, records, equipment, witness statements, and facilities that may be involved in the mishap.

5.7.7.4 Assist the IA to coordinate with the appropriate Contracting Officer prior to accessing the site, impounding contractor data, and interviewing contractor personnel as permitted by the contract.

5.7.8 The IRT will relinquish control of the mishap site to the IA chairperson when directed by the AO or the SMA Director.

5.7.9 IRT and IA Required Security Clearances:

5.7.9.1 One-time exceptions may be granted for minimum number of personnel and periods of time in response to incidents that involve hazards, serious injury, loss of life, or significant property damage. The Office of Protective Services will make this determination after the emergency phase.

5.7.9.2 The MIPM or IRT Manager will ensure that personnel who participate in investigations that involve classified information possess required access levels and security clearance.

5.7.10 IRT Medical Requirements:

IRT members' safety and wellness are of primary importance to the investigation process. The following provisions are required by the Chief Health and Medical Officer (CHMO).

5.7.10.1 Physical Examination: Complete examination every 3 years noting chronic conditions that may be incompatible with remote assignments (e.g. diabetes type 1 or heart disease).

5.7.10.2 Immunizations: Complete the following immunizations.

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- a. Current Hepatitis A
- b. Current Hepatitis B
- c. Tetanus within 10 years
- d. Diphtheria within 10 years
- e. Influenza—most current available
- f. Tuberculosis (TB) skin test (PPD) within last 6 months
- g. Additional immunizations/medications should be considered on location-specific basis

5.8 THE MISHAP AND CLOSE CALL PROCESS

The MIPM or the alternate MIPM will decide if an incident is a NASA mishap.

5.8.1 Type A, Type B, and High Visibility Mishaps

5.8.1 Type A, Type B, and high visibility mishaps will follow the processes described in NPR 8621.1 for initial response, reporting, investigating, and documenting.

5.8.2 The AO shall determine if, and when, non-NASA experts and contractor support need to be appointed.

5.8.2 Type C and D Mishap and Close Call Investigations

5.8.2.1 At MSFC: The investigating authority for Types C and D mishaps and close calls are individual mishap investigators known as Industrial Safety Specialists (ISSs).

a. Each ISS is assigned a zones(s) and is responsible for investigating close calls and Type C and D mishaps in their individual zone(s) of responsibility.

b. They follow the process described in QD-IS-009 for initial response, reporting, investigating, and documenting.

5.8.2.2 At MAF: The functions performed by the ISS at MSFC are performed by the Syncom Space Services (S3) Safety Support Contractors at MAF.

5.8.2.3 After the investigation is completed by ISS or S3, a mishap investigation report is completed and documented on MSFC Form 4515. The completed Form 4515 is uploaded into the NASA Mishap Information System (NMIS) by the responsible ISS.

5.8.2.4 The MIPM or alternate MIPM reviews the mishap report/MSFC Form 4515 and is responsible for accepting or rejecting the report.

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- a. If the mishap report is accepted, the ISS is relieved of their duties; the assigned responsible organization will begin work on their Corrective Action Plan (CAP) and track progress in NMIS at a minimum of every 30 days.
- b. If the report is rejected, the ISS will either make modifications or the Industrial Safety Specialists' Team Lead will assign a new ISS and the process will start anew.

5.9 RECORDING MISHAP AND CLOSE CALL INFORMATION

5.9.1 NASA recordable mishaps/close calls shall be entered into NMIS within 24 hours of awareness or initial notification to Center's Safety Office by the Center's NMIS Administrator or organization's NMIS POC following the process described in NPR 8621.1.

5.9.2 NMIS case files include, at a minimum:

5.9.2.1 The initial reported description of the mishap/close call;

5.9.2.2 The mishap/close call investigation report containing the information described in NPR 8621.1;

5.9.2.3 CAP and/or Action Requests; and

5.9.2.4 Other mishap/close call-related information gathered during the investigation and determined to be relevant to the NMIS case by the Center's NMIS Administrator or Center's MIPM.

5.9.3 NMIS case files will be updated by the Center's NMIS Administrator or organization's NMIS POC throughout the investigation as additional information (e.g., incident investigation report, pictures) becomes available following the process described in NPR 8621.1.

5.9.4 Medical information will be provided by the Center's Medical Center regarding the persons injured and nature of injuries as a result of the mishap/close call for inclusion in NMIS and the investigation report as needed.

5.9.5 Contractors may be required to identify an employee to serve in the role of the organization's NMIS POC for their company when identified in DRD MSR for their contract. This role includes entering, tracking, and closing NASA reportable mishap/close calls into NMIS for their company. Contractors should review their contract to determine if they are to provide an organization's NMIS POC.

5.9.6 The Center's OSHA Form 300A (used for recording Civil Service employee OSHA recordable injuries and illnesses) will be updated, posted and maintained by the Center's Safety Office following the processes described in 29 CFR pt. 1904, NPR 8715.1, and MPR 8715.1.

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5.9.7 Contractor OSHA Form 300A (used for recording Contractor employee OSHA recordable injuries and illnesses) will be updated, posted and maintained by the Contractor following the processes described in 29 CFR pt. 1904.

5.9.8 Mishap reports for Type A, Type B, and High Visibility mishap investigations shall follow the processes described in NPR 8621.1 for documentation and approval requirements.

5.9.9 Mishap reports for Type C, Type D, and mishaps and close calls that are not high visibility investigations shall follow the processes described in MWI 8621.1, sections 5.18 and 5.19, for documentation and approval requirements.

5.10 FUNDING

5.10.1 Funding for Type A, Type B, and High Visibility Mishaps

5.10.1.1 Funding for investigation-related activity and resource costs will be provided by the program or project including, but not limited to, travel, salaries, computer and/or video equipment, and supplies, without administrative delay.

5.10.1.2 Funding requests for incidentals associated with investigation activities will be made to the Office of the Chief Financial Officer (CFO).

5.10.1.3 An explanation for expenses over \$25,000 will be submitted to the Associate Administrator for approval. The Director of Safety and Mission Assurance will coordinate this request.

5.10.1.4 If the IRT requires additional procurements, this may be funded by the Safety and Mission Assurance (SMA) Directorate.

5.10.1.5 The CFO's office will determine current labor charging, contract task funding, and pricing for full time equivalents (FTEs) and work year equivalents (WYEs).

5.10.1.6 The MSFC SMA Director will obtain the following personnel information for each incident:

- a. Civil servants: number of FTE employees needed by organization code and current charge code.
- b. Contractors: total WYEs by contract and name of program that is funding the task.
- c. Travel Expenses.

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5.10.2 Funding for Types C and D Mishap Investigations

5.10.2.1 At MSFC, employees participating in close calls and Types C and D mishap investigations should charge their time to the charge code they normally use. If the existing budget cannot absorb these costs, the SMA Director, or designee, will coordinate the funding request with the Associate Director and CFO.

5.10.2.2 At MAF, funding for Incident Response Teams and Investigating Authorities will utilize their normal funding codes. If the existing budget cannot absorb these costs, the SMA and MAF Directors, or designees, will coordinate the funding request with the Associate Director and CFO.

5.11 DRUG TESTING PROCEDURES

5.11.1 Industrial Safety Branch, at the earliest opportunity, shall:

5.11.1.1 Advise the supervisor of a Federal employee if drug testing should be requested in accordance with NPR 3792.1, Plan for a Drug-Free Workplace.

Note: In accordance with NPR 3792.1, the supervisor will initiate drug testing after a mishap if the mishap results in a fatality or personal injury requiring immediate hospitalization or in damages estimated to be in excess of \$10,000 to Government or private property. This applies to Federal employees only.

5.11.1.2 Notify the Contracting Officer, or the Contracting Officer's Representative, if drug testing for contract personnel is to be implemented according to the contract or applicable agreements.

5.11.2 Supervisors shall initiate drug testing procedures as appropriate.

5.11.2.1 Civil servant supervisors shall contact NASA Shared Services Center (NSSC) at 877-677-2123.

5.11.2.2 Contracting Officers and Contracting Officers Representatives shall make the request for contractors in accordance with their respective contracts.

5.12 IMPOUNDMENT PROCESS

5.12.1 The Office of Center Operations will designate locations where impounded data, records, and equipment will be stored and secured during investigations.

5.12.2 The Office of Center Operations will comply with the Office of Protective Services' requirements for storage of property, documents, and other evidence.

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5.12.3 The Safety and Mission Assurance Directorate will initiate impoundment of evidence as part of IRT management, with the support from Protective Services Officer (PSO) to secure and protect the impounded materials.

5.12.4 All photographic evidence will be encrypted and controlled according to Personal Identification Information (PII), or applicable Center export control regulations.

5.12.5 MSFC Impoundment Locations

Building	Room	Comments
4732	161	QD12, Industrial Safety Specialist Office-for small items

5.12.6 MAF Impoundment Locations

Building	Room	Comments
320 - FACILITIES OPERATIONS BLDG	M-2	QD12, AST Industrial Safety Specialist Office -for small items
103 - MANUFACTURING BLDG	An available open area in Building 103, with security barriers installed and a security guard posted 24/7	For large items. If the area cannot be secured under lock and key, it will be provided with a Security Officer, 24/7. Contact SMA QD12 Industrial Safety Specialist for more details.

5.12.7 Release of Impounded Records and Equipment

Only the IA will release items from impoundment.

5.12.8 Data Impound at Contractor Sites

The IRT will work through the contracting officer, with guidance from legal counsel, to obtain and impound data at contractor and subcontractor sites.

5.13 MEDICAL JURISDICTION FOR FATALITIES/INJURIES OCCURRING AT MSFC

5.13.1 The MSFC Medical Officer has medical jurisdiction for injuries and fatalities that occur at MSFC. The MAF Medical Officer has medical jurisdiction for injuries and fatalities that occur at MAF.

5.13.2 At MSFC, seriously injured employees will be transported by Huntsville Emergency Medical Services Inc (HEMSI) as necessary.

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5.13.3 At MAF, seriously injured employees will be transported by the Emergency Medical Services (EMS) if necessary.

5.13.4 Employees with minor or non-life threatening injuries may report to the MSFC Medical Center/Building 4249 and MAF Medical Center/Building 320.

5.14 NOTIFICATION OF CASUALTIES INVOLVING NASA AND/OR CONTRACTOR EMPLOYEES

5.14.1 Notification of next of kin will be provided in accordance with MPR 1830.1, which establishes the MSFC procedural requirements regarding notification and assistance in matters related to on-the-job serious illness, injury or death of MSFC civil service employees and on-site contractor employees.

5.14.2 Notification for next of kin for casualties involving NASA civil servants, whether at MSFC or at MAF, will be provided by the heads of basic organizational units and the designated officials in the MSFC Office of Human Capital, in accordance with MPR 1830.1.

5.14.3 Notification for next of kin for casualties involving contractor employees will be provided by the contractor Program Manager, after being notified of the incident by the MSFC Office of Procurement, as described in MPR 1830.1. The notification shall comply with the rules and regulations of the specific contractor.

5.15 PERSONAL PROTECTIVE EQUIPMENT AND GO-KITS FOR IRT

5.15.1 Each individual on the IRT is responsible for maintaining their personal protective equipment.

5.15.2 Go-Kits must be examined and verified on a monthly basis to ensure that they are complete and that expiration dates have not passed.

5.15.3 Industrial Safety Specialists are also responsible for maintaining their go-kits. Minimal contents of go kits are as follows:

5.15.3.1 IRT Go-Kit suggested elements:

- a. Site Hazard Review Checklist
- b. Scene Diagram and Sketch Checklist
- c. Photo/Video Imagery Log
- d. Evidence Tags

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- e. Evidence Custody Document
- f. Witness Statement Form
- g. Witness Privilege Statement Form
- h. 24-72-Hour History Questionnaire

5.15.3.2 Forms are enclosed in the appendix section.

5.16 INVESTIGATION MEETING ROOM

5.16.1 The Office of Center Operations will provide a secure meeting room for the IA as soon as possible.

5.16.2 The room should meet the following criteria:

- 5.16.2.1 Blocked to all outside visibility, if possible
- 5.16.2.2 Locked access to restrict admittance to assigned IA participants
- 5.16.2.3 Contain electrical connections for computers
- 5.16.2.4 Have global telephone access
- 5.16.2.5 Have projector access
- 5.16.2.6 Have file cabinets with lock/keys
- 5.16.2.7 Available for use up to 75 days (depending on investigation level)

5.17 PHOTOGRAPHY AND VIDEOGRAPHY

5.17.1 MSFC and MAF photographic services will be available to provide professional photography and/or video support to preserve mishap evidence for the IRT and IA as requested by the IA.

5.17.2 Contact the Technical Representative (TR) and the Contracting Officers Representative (COR) to obtain services. If neither the TR nor the COR can be reached, Industrial Safety Branch directly.

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5.18 SIMULATIONS

5.18.1 The Safety Office will coordinate with the Emergency Management Director (EMD) to participate in emergency simulations/exercises to verify the effectiveness of the Center's MPCP.

5.18.2 Training exercises for personnel designated to serve as MAF IRT members may be included with other training exercises performed on MSFC or MAF by other Center organizations, such as those performed by the MSFC or MAF Emergency Management Office.

5.18.3 Trainings exercises for mishaps are performed at least once a year.

5.18.4 The EMD determines the frequency and type of emergency exercises to be simulated/practiced.

5.18.5 Emergency procedures shall be periodically practiced to identify deficiencies and actions necessary to ensure the emergency procedures are effectively implemented in the event of an emergency following the process described in NPR 8621.1.

5.18.5.1 The Safety Office may participate in the simulation/practice of facility/operation/test owner emergency procedures to verify the effectiveness of the Center's MPCP for facility/operation/test emergencies.

5.18.5.2 The organization responsible for the emergency procedure shall determine the method of practicing the emergency procedure. The method of practicing may range from a review of the emergency section of a test procedure, a tabletop review/dry run or full enactment simulation, where possible.

5.19 RECORDS

The records associated with mishap planning and response will be maintained in accordance with the records schedules from NRRS 1441.1, as identified in MWI 8621.1.

6. CANCELLATION

MCP 8621.1Baseline, MSFC/MAF Mishap Preparedness and Contingency Plan, dated January 14, 2016.

Electronically approved by

Jody Singer
Director

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APPENDIX A DEFINITIONS

Additional definitions are contained in NPR 8621.1, MWI 8621.1 and MCP 1040.2.

Close Call A close call is an event that has a potential to cause a mishap, results in no injury or minor injury requiring first aid only, and less than \$20,000 in equipment and property damage.

Mishap A mishap is an incident/unplanned event caused by a MSFC operation or a MSFC-funded development and research project that results in at least one of the following:

- a. Occupational injury or occupational illness to non-NASA personnel.
- b. Damage to or destruction of public, private, or foreign property.
- c. Occupational injury or occupational illness to NASA personnel.
- d. NASA mission failure prior to scheduled completion of the planned primary mission.
- e. Destruction of, or damage to, NASA property, except for a malfunction or failure of component parts or systems that fail before their fixed useful life has been met, provided the following are true: (1) preventative maintenance was adequate and (2) the sole action is to replace or repair the component.

Non-Mishap A non-mishap is an incident/unplanned event that is not considered a NASA mishap or close call per NPR 8621.1. Non-mishaps include the following situations:

- a. Illness resulting in lost time and fatalities that are due to an employee's chronic health conditions and are unrelated to work environments.
- b. Attempted suicide or intentionally self-inflicted injuries.
- c. Injuries or fatalities resulting from altercations, assault (unless incurred in the performance of official duties, for example, criminal investigators), or homicide.
- d. Destruction of, or damage to, property, as a direct result of:
 - Weather conditions.
 - Commercial carriers that have full responsibility for packing, securing, or transporting NASA items.
 - Accidents involving civil aircraft owned by civil operators under contract for NASA missions that do not result in NASA property damage or civil servant injuries.
 - NASA equipment that resides offsite that is leased, on bailment, or loaned to contractors, commercial airlines, other Government agencies, or foreign governments when the lessee has assumed risk of damage or loss.
- e. For other examples of non-mishaps, refer to NPR 8621.1.

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APPENDIX B ACRONYMS

AO	Appointing Official
BFF	Booster Fabrication Facility
CFO	Chief Financial Officer
CHMO	Chief Health and Medical Officer
COR	Contracting Officers Representative
DRD	Data Requirements Description
EMS	Emergency Medical Services
EM	Emergency Management
EMD	Emergency Management Director
EMP	Emergency Management Plan
FTE	Full Time Equivalent
HEMSI	Huntsville Emergency Medical Services Inc
IA	Investigating Authority
IC	Incident Commander
ICP	Incident Command Post
IRT	Interim Response Team
IS	Industrial Safety
ISS	Industrial Safety Specialist
MAF	Michoud Assembly Facility
MCP	Marshall Center Plan
MIB	Mishap Investigation Board
MIPM	Mishap Investigation Program Manager
MIT	Mishap Investigation Team
MPCP	Mishap Preparedness and Contingency Plan
MPR	Marshall Procedural Requirement
MSFC	Marshall Space Flight Center
MSR	Mishap and Statistics Reporting
MWI	Marshall Work Instruction
NASA	National Aeronautics and Space Administration
NFS	NASA FAR Supplement
NMIS	NASA Mishap Information System
NPR	NASA Procedural Requirement
NSSC	NASA Shared Service Center
NTSB	National Transportation Safety Board
OSHA	Occupational Safety and Health Administration
OSMA	Office of Safety and Mission Assurance
PII	Personal Identification Information
POC	Point of Contact
PSO	Protective Services Office
QD	MSFC Safety and Mission Assurance Directorate organization code
S3	Syncom Space Service
SHE	Safety, Health and Environmental
SMA	Safety and Mission Assurance
TR	Technical Representative
WYE	Work Year Equivalent

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**APPENDIX C
REFERENCE**

NPR 7120.5, NASA Space Flight Program and Project Management Requirements