

Chapter 21 - Mishap and Close Call Reporting, Investigating, and Recordkeeping

21.1 Overview

21.1.1 This chapter defines NASA and GRC requirements for reporting, investigating, and documenting mishaps, close calls, and previously unidentified serious workplace hazards.

21.2 Scope

21.2.1 The scope of this chapter includes activities at both Lewis Field & Plumbrook Station. It does not include activities covered by the GRC Emergency Preparedness and Response Program.

21.3 Mishap Reporting & Notification Protocol

21.3.1 Emergency Reporting & Notification

a. Lewis Field - Call 911 on a NASA phone or by pulling the nearest manual fire alarm box. From pay phone or cell phone dial (216) 433-8888

b. Plumbrook Station - Dial (419) 621-3222

21.3.2 Reporting Non Emergencies

21.3.2.1 Employees, at a minimum, shall inform their supervisors of any mishaps, close calls or otherwise unsafe situations.

21.3.2.2 Call the Glenn Environmental Health & Safety Help Line at (216) 433-8848. The Help Line is available 24 hours a day, 7 days a week. This Help Line has been established for any environmental, health, or safety issues at Glenn.

21.3.2.3 NASA Incident Reporting Information System (IRIS)

a. Medical Services - shall notify the Safety Branch via IRIS of all reportable injury incidents and lost workday mishaps within 24 hours of the occurrence. Medical Services shall provide any medical information that is pertinent to a mishap investigation and that is within their legal authority to release.

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b. General Lab Population – IRIS can be used by anyone at GRC for reporting any mishap that occurs during Glenn operations, including a close call, if NASA or contractor personnel, the public, and/or NASA property are involved. This can be done at the following link

https://nasa.ex3host.com/iris/quickincident/safety_default.asp

21.3.2.4 Inspector General - All NASA and NASA contractor employees are encouraged to alert the OIG to crime, fraud, waste, and mismanagement in NASA's programs. The OIG Hotline offers a confidential means for reporting this important information. **NASA OIG HOTLINE 1-800-424-9183 or write**

NASA Office of Inspector General
P.O. Box 23089
L'Enfant Plaza Station
Washington, D.C. 20026

21.3.2.5 NASA Safety Reporting System (NSRS) - A confidential, voluntary, and responsive safety reporting system that provides a direct channel for NASA employees and contractors to notify the NASA Safety and Risk Management Division of safety concerns. The NSRS enables safety personnel to identify safety problems and implement corrective actions independently. The NSRS forms can be found at each building in a designated area. The link to the NSRS web site is at <http://www.hq.nasa.gov/nsrs>

21.4 Investigation Process

21.4.1 The procedures for investigating Mishaps or Close Calls are defined in NPR 8621.1B and will depend on the type of Mishap (A, B, C or D).

21.4.2 For Type A and B Mishaps the Investigation Team is generally appointed by NASA Headquarters

21.4.3 For Type C and D Mishaps the responsibility for any investigation is that of the Supervisor of the Individual affected or the work area or process involved. There will also be a Glenn Safety Branch (GSB) Point of Contact (POC) assigned to each mishap to provide assistance to the supervisor.

21.4.4 There are eight steps involved in all Mishap Investigations (Reference 8621.1 for specific details):

- a. Prepare for the investigation
- b. Verify mishap site and any evidence are secure.
- c. Gather physical evidence and facts
- d. Interview witnesses

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- e. Review and analyze data
- f. Draw conclusions and document findings
- g. Generate a Corrective Action Plan (CAP)
- h. Complete and Document CAP.
- i. Complete Mishap Report in IRIS.

21.4.5 Supervisors are responsible for addressing any and all recommendations in the CAP. Safety Office POC's are responsible for verification of all corrective actions that were implemented.

21.4.6 Lessons learned should be documented at <http://llis.gsfc.nasa.gov/>.

21.4.7 The Chief of the Glenn Safety Branch is responsible for signing off that the mishap report is complete.

21.5 - Recordkeeping

21.5.1 Mishap reports and associated records will be retained in IRIS in accordance with NPG 1441.1C, "[NASA Records Retention Schedules](#)". Testimony data will be retained in a confidential/privileged file in IRIS.

21.6 Definitions

21.6.1 NASA Mishap – An unplanned event that results in at least one of the following:

- a. Injury to non-NASA personnel, caused by NASA operations.
- b. Damage to public or private property (including foreign property), caused by NASA operations or NASA funded development or research projects.
- c. Occupational injury or occupational illness to NASA personnel.
- d. NASA mission failure.
- e. Destruction of, or damage to, NASA property except for a malfunction or failure of component parts that are normally subject to fair wear and tear and have a fixed useful life that is less than the fixed useful life of the complete system or unit of equipment, provided that the following are true:
 - (1) there was adequate preventative maintenance
 - (2) the malfunction or failure was the only damage and the sole action is to replace or repair that component.

21.6.2 Type A Mishap - A mishap resulting in one or more of the following: (1) an occupational injury or illness resulting in a fatality, a permanent total disability, or the hospitalization for inpatient care of 3 or more people within 30 workdays of the mishap; (2) a total direct cost of mission failure and property damage of \$1 million or more; (3) a crewed aircraft hull loss; (4) an occurrence of an unexpected aircraft departure from

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controlled flight (except high performance jet/test aircraft such as F-15, F-16, F/A-18, T-38, and T-34, when engaged in flight test activities).

21.6.3 Type B Mishap - A mishap that caused an occupational injury or illness that resulted in a permanent partial disability, the hospitalization for inpatient care of 1-2 people within 30 workdays of the mishap, or a total direct cost of mission failure and property damage of at least \$250,000 but less than \$1,000,000.

21.6.4 Type C Mishap - A mishap resulting in a nonfatal occupational injury or illness that caused any days away from work, restricted duty, or transfer to another job beyond the day or shift on which it occurred, or a total direct cost of mission failure and property damage of at least \$25,000 but less than \$250,000.

21.6.5 Type D Mishap - A mishap that caused any nonfatal OSHA recordable occupational injury and/or illness that does not meet the definition of a Type C mishap, or a total direct cost of mission failure and property damage of at least \$1,000 but less than \$25,000.

21.6.6 Mission Failure – A mishap of whatever intrinsic severity that, in the judgment of the Enterprise Associate Administrator (EAA), program/project manager, or the Administrator, Associate Administrator, Office of Safety and Mission Assurance (AA/OSMA), prevents the achievement of primary NASA mission objectives as described in the mission operations report or equivalent document.

21.6.7 Close Call - An occurrence or a condition of employee concern in which there is no injury or only minor injury requiring first aid and no significant equipment/property damage/mission failure (less than \$1,000) but which possesses a potential to cause a mishap.

21.6.8 Corrective Actions – Changes to design processes, work instructions, workmanship practices, training, inspections, tests, procedures, specifications, drawings, tools, equipment, facilities, resources, or material that result in preventing, minimizing, or limiting the potential for recurrence of a mishap.

21.6.9 IRIS – NASA's Incident Reporting Information System

21.7 Mishap Reporting using IRIS

21.7.1 Accessing IRIS can be done at the following link for the general lab population

https://nasa.ex3host.com/iris/quickincident/safety_default.asp

21.7.2 GRC personnel (civil servants and contractors) should report mishaps or close calls by going to the above link and completing (at a minimum) all of the bold fields.

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IRIS will automatically notify the Glenn Safety Branch when this IRIS form is completed.

21.8 Mishap Follow-up using IRIS (GRC Supervisors Only)

21.8.1 To log into the system proceed to the following link

<https://nasa.ex3host.com/iris/newmenu/login.asp>

21.8.2 The Injury/Illness Module allows you to record, track, and report on the occupational and non-occupational injuries and illnesses that affect your organization.

- a. Use the eight Investigation sub tabs (General, Detail, Factors, Notes, OSHA, Action, Equipment and Condition) to record information collected during the course of investigating an incident
- b. The Chief of the Glenn Safety Branch is the only authorized individual who can declare an investigation closed

21.8.3 The Safety Incident Module tracks data related to various safety incident types.

- a. **Investigation Notes** - Allows investigators to create a log of notes related to the incident.
- b. **Attachments** – Attach electronic or scanned documents directly to record.