



NOAA/NESDIS



NESDIS-PD-1010.1 NESDIS Critical Event Reporting Policy

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COMPLIANCE IS MANDATORY



Prepared by:

U.S. Department of Commerce

National Oceanic and Atmospheric Administration (NOAA)

National Environmental Satellite, Data, and Information Service (NESDIS)



**NESDIS
Policy
Directive**

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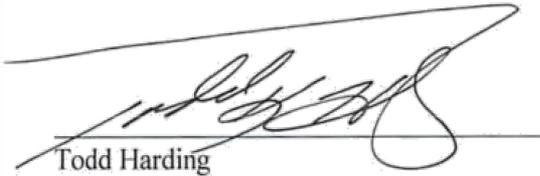
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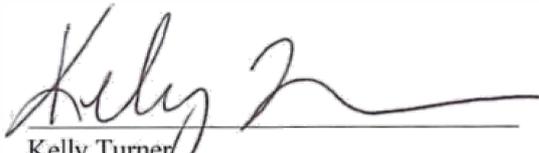
Prepared by:



Todd Harding
Deputy Chief of Staff

3 November 2017
Date

Approved by:



Kelly Turner
Chief of Staff

11/27/17
Date



Stephen Volz
NESDIS Assistant Administrator for Satellite and
Information Services

11/28/17
Date



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1. PURPOSE

This directive outlines policy and procedure for NOAA Environmental Satellite Data and Information Service (NESDIS) offices to report critical events to higher headquarters, users and other stakeholders. This policy supersedes the NESDIS Satellite Anomaly Reporting Policy dated July 8, 2011.

2. SCOPE

This directive applies to all NESDIS offices as defined in Appendix A, satellite or ground system operations, and/or satellite data production, delivery, and archival anomalies. Other anomalies, not meeting the criteria set forth in this directive, are reported through other methods such as Environmental Satellite Processing Center (ESPC) Help Desk Notifications, and OSPO Weekly and Monthly Reports.

3. GENERAL POLICY AND GUIDANCE

- a. NESDIS employees are required, through their Office Directors, to provide NESDIS Headquarters with an initial situation report and follow up reports (as required) regarding significant events adversely affecting continuity of NESDIS satellite operations. These events are determined by their impacts on satellite and ground system operations, and/or satellite data production, delivery, and archival. Satellite anomaly reports received by NESDIS Headquarters will be used to brief high level NOAA and/or DOC officials, and, at times, Congressional delegates and staff. This NESDIS policy and procedures can be used for recommendations for reporting above NESDIS, but do not replace, nor preclude reporting, investigating and tracking mishaps or close calls consistent with NOAA or DOC policy or procedures.
- b. It is recognized that during the initial phases of an anomaly, it is often difficult to predict the severity. The primary purpose of early reporting is to give NESDIS management notification that a potentially serious event has occurred. Appendix A describes the different categories of anomalies and the thresholds that trigger reporting to NESDIS HQ along with recommendations for reporting to NOAA, DOC, and Congress. A reportable anomaly that constitutes an IT security incident must also be reported through existing NOAA IT security procedures.
- c. Key definitions, including the particular types of critical events that require reporting, are documented in Appendix A.
- d. Specific procedures for reporting critical events, along with reporting timelines, are documented in Appendix B.
- e. Specific satellite operational anomaly reporting guidelines are documented in Appendix C.



APPENDIX A

Definitions

NESDIS Enterprise: Satellite Systems Acquisition, Operations and Maintenance, Science, Data Stewardship and Preservation required to execute NOAA's mission in support of NOAA's Primary Mission Essential Functions. (Derived from NESDIS-PD-1000.1, NESDIS Governance and Strategic Management.)

NESDIS Office(s): A term used in the widest sense to include NESDIS Headquarters elements, NESDIS Operations and Acquisitions offices, the Center for Satellite Applications and Research (STAR), and the National Centers for Environmental Information (NCEI).

Satellite Operational Anomaly: A satellite anomaly is any unexpected and/or unplanned and/or unwanted deviation from normal satellite or ground system operations, and/or satellite data production, delivery, and archival systems.

Reportable Satellite Operational Anomaly: A satellite operational anomaly must be reported when the anomaly meets one or more of the following criteria:

- a. Could cause NOAA to not meet Congressional, Administration or partner commitments; Involves the loss, damage or destruction of satellites and other capital equipment; or Significantly interrupts the flow or quality of data, data products, archival, or services (including to or from non-NOAA and international observing systems) to end users; or,
- b. Breaches or threatens physical or information security.



APPENDIX B

Critical Event Reporting Procedures

1. NESDIS Office Directors must be advised of anomalies immediately according to internally established policies and procedures. The Office Director shall determine if the anomaly should be reported to NESDIS Headquarters (HQ) based on the criteria outlined in *Appendix A*. As there are always exceptions to the rules, Office Directors shall use their best judgement when reporting anomalies to NESDIS HQ.
2. If an IT security incident is suspected, call the NOAA Computer Incident Response (NCIRT) team immediately at 301-713-9111 before taking any action except to protect lives in immediate danger or prevent a catastrophic loss.
3. Reportable Satellite Operational Anomalies (command and control, data processing and distribution, archival, or services) shall be reported within 3 hours of awareness/determination of the event, including such anomalies occurring on weekends and holidays.
4. Reporting to NESDIS HQ should be by email, but if not possible, then by telephone. Telephone calls shall be followed promptly by an e-mail(s) as soon as possible to document the reporting.
5. E-mail reports should be in the following format and contain as much of the following information as possible:
 1. TO:
 2. FROM:
 3. DATE:
 4. PROGRAM/PROJECT:
 5. DATE/TIME OF ANOMALY:
 6. DESCRIPTION OF ANOMALY:
 7. RESOLUTION SUMMARY (AS APPLICABLE)
 8. IMPACT ON USERS, PROGRAM/PROJECT PERFORMANCE AND SCHEDULE:
 9. ACTION PLAN (OR DATE PLAN TO BE COMPLETED) TO FURTHER INVESTIGATE #6 AND #8, AS APPROPRIATE. (Additionally, an escalation recommendation should be provided based on the guidance in *Appendix C*.)
6. Reportable Satellite Operational Anomalies shall be reported (usually by OSPO or NCEI) to the Assistant Administrator (AA) with copies to anomaly.nesdis.primary@noaa.gov and:
 - a. Deputy Assistant Administrator (DAA)
 - b. Deputy Assistant Administrator for Systems (DAAS)
 - c. NESDIS Chief Information Officer (ACIO-S)
 - d. Chief of Staff (COS) and Deputy COS
 - e. Other NESDIS Offices as necessary



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- f. NWS Senior Duty Meteorologist
 - g. Director, NWS Office of Observations
7. The AA shall determine, using the guidelines in *Appendix C* and the escalation recommendation in the Anomaly Report, if the anomaly should be reported via e-mail to NOAA HQ. Copies of all anomalies reported to NOAA HQ shall be provided to anomaly.nesdis.secondary@noaa.gov and:
- a. NESDIS Program Coordination Officer (PCO)
 - b. NOAA Chief of Staff
 - c. NOAA Director of Legislative Affairs (LA) and action officer
 - d. NOAA Chief Financial Officer (CFO), Budget Director, Chief Information Officer (CIO), and action officer
 - e. NOAA Director of Public Affairs (PA) and action officer
 - f. NESDIS CFO, LA officer
 - g. Director and Deputy of the Office of International and Interagency Affairs (IIA)
 - h. National Weather Service (NWS) AA and DAA, CIO, and Director of the National Centers for Environmental Prediction (NCEP)
8. NESDIS Public Affairs will be responsible for all interactions with the media.
9. Continued Reporting: As significant details emerge, updates will be provided to the anomaly electronic distribution list.
10. After the completion of anomaly mitigation/restoration activities on an anomaly reported to NOAA level or higher, a final Close-Out Report shall be sent with the information and in format provided in Paragraph 5 above.



Appendix C

Satellite Operational Anomaly Reporting Guidelines

Satellite and Product Operational Anomalies:

Anomaly:	Recommended Notification Level			
	NESDIS HQ	NOAA HQ	DOC	Congress
o Permanent loss of critical mission data ¹	X	X	X	X
o Reduction to the expected mission lifetime of a spacecraft or instrument.	X	X	X	
o Switchover to a backup system due to the permanent loss of a primary spacecraft or sensor system	X	X		
o Loss, or expected loss, of GOES data for more than two hours	X	X		
o Loss, or expected loss, of ocean altimetry or polar satellite data for more than six hours ²	X			
o Risk Mitigation Maneuver (RMM) or potential conjunction with polar or GOES satellites ³	X			
o Operational(unscheduled) Failover to a COOP site	X	X		
o Loss, or expected loss, of primary Space Weather data for more than 2 hours	X	X		
o Loss of SARSAT data collection, processing, and distribution capability for more than 6 hours	X			
o Permanent significant loss of archival data (CLASS or NCEI)	X			



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o Loss, or expected loss of data from non-NOAA satellites for more than 24 hours.	x			
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- ¹ Critical mission data is defined as any data that significantly affects the ability of NOAA to meet its PMEFs or the National Weather Service ability to provide weather, water, and climate data, forecasts and warnings for the protection of life and property and enhancement of the national economy.
- ² For primary JPSS (S-NPP), POES, DMSP, Jason, or METOP satellites as measured by the production and delivery of 1b radiances. May not correspond to what NCEP or other users are currently assimilating into their models (e.g., they may be using secondary satellites operationally)
- ³ For conjunction events, notification shall be made 48 hours prior to expected conjunction time or upon planning a RMM (if applicable), whichever is greater. For polar satellites, a potential conjunction will be reported if probability of conjunction (P_c) is greater than 1×10^{-3} . For GOES satellites if total miss distance is less than 500 meters