**NID 2830.117**

**Effective: September 11, 2018**

**Expiration: September 2019**

**Subject: NASA Interim Directive: Enterprise Protection Program**

**Responsible Office: Office of the Administrator**

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**PREFACE**

**P.1 Purpose**

This National Aeronautics and Space Administration (NASA) Interim Directive (NID) establishes the responsibilities and requirements of the Principal Advisor for Enterprise Protection (PAEP), the Enterprise Protection Program (EPP), and the Enterprise Protection Board (EPB) in accordance with the NASA Associate Administrator’s memorandum establishing the Position of Principal Advisor for Enterprise Protection, dated August 18, 2016.

**P.2 Applicability**

a. This interim directive is applicable to NASA Headquarters and NASA Centers, including Component Facilities, Technical and Service Support Centers, and the Jet Propulsion Laboratory (JPL), (NASA’s Federally Funded Research and Development Center). This language also applies to NASA contractors (including the contractor operating the JPL), recipients of grants and cooperative agreements, and parties to other agreements only to the extent specified or referenced in the applicable contracts, grants, or agreements.

b. This interim directive applies to all NASA space and aeronautical flight programs and projects, including spacecraft, launch vehicles, aircraft, and instruments developed for flight programs and projects; research and technology projects funded by and to be incorporated into space or aeronautical flight programs and projects; critical technical facilities specifically developed or significantly modified for space or aeronautical flight systems; mission operations systems; communications systems; and network systems. This interim directive also applies to reimbursable space and aeronautical flight programs and projects performed for non-NASA sponsors, and to NASA contributions to space flight programs and projects performed with international and interagency partners.

c. This interim directive can be applied to other NASA investments at the discretion of the NASA Associate Administrator.

d. In this interim directive, 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.

e. In this interim directive, all document citations are assumed to be the latest version unless otherwise noted.

**P.3 Authority**

a. National Aeronautics and Space Act, as amended, 51 U.S.C. §20113 and §20132.

b. NPD 1000.0, NASA Governance and Strategic Management Handbook.

c. NPD 1000.3, The NASA Organization.

d. Memorandum from the NASA Associate Administrator to Officials-in-Charge of Headquarters Offices and Directors, NASA Centers, Establishing the Position of Principal Advisor for Enterprise Protection, dated August 18, 2016.

e. Presidential Policy Directive 4: National Space Policy of the United States of America

f. Presidential Policy Directive 21: Critical Infrastructure Security and Resilience

g. Clinger-Cohen Act of 1996.

**P.4 Applicable Documents and Forms**

a. NPR 7120.5, NASA Space Flight Program and Project Management Requirements.

b. NPR 7120.8, NASA Research and Technology Program and Project Management Requirements.

c. Federal Information Technology Acquisition Reform Act.

d. Federal Information Security Modernization Act (2014).

e. NPR 2810.1, Security of Information Technology.

f.. Memorandum from NASA Chief Engineer, Space Asset Protection Requirements, dated February 26, 2016.

g. NASA Charter (NC) 1000.40, NASA Enterprise Protection Board Charter (accessible at [*https://nodis3.gsfc.nasa.gov/OPD\_docs/NC\_1000\_40\_.pdf*](https://nodis3.gsfc.nasa.gov/OPD_docs/NC_1000_40_.pdf)*).*

**P.5 Measurement/Verification**

Compliance with this interim directive is verified through oversight by the governing Program Management Council (PMC) and NASA internal controls described in NPD 1200.1, NASA Internal Control and Accountability. Special audits are performed per NPD 1000.0, Strategic Management and Governance Handbook.

**P.6 Cancellation**

None.

**CHAPTER 1. Introduction**

**1.1 Background**

1.1.1 Current trends in the proliferation of technology and technical information, accessibility to space, globalization of space programs and industries, and foreign knowledge about U.S. space and aeronautical systems increase the threat environment to NASA flight systems, ground systems, and supporting infrastructure. This heightened threat environment increases the possibility that NASA flight systems, ground systems, and supporting infrastructure could be subject to a disrupted, degraded, or denied environment or potentially a direct attack through a variety of means and methodologies.

1.1.2 To address these challenges, the NASA Associate Administrator established the position of PAEP as a direct report to the Associate Administrator. The PAEP provides advice and recommendations regarding the protection of the NASA enterprise, especially for cross-Agency or complex threats to flight systems, ground systems, or infrastructure. The PAEP also provides recommendations relating to matters potentially affecting critical U.S Government or security functions that NASA systems support. This memorandum also established the EPP and the EPB, and established the PAEP as the NASA representative to the Space Security and Defense Program (SSDP) and similar entities and functions.

**1.2 Overview**

1.2.1 The PAEP leads the cross-Agency EPP to provide advice and recommendations on threats and associated Agency vulnerabilities, risks, mitigations, and protection of NASA programs, projects, and activities. The PAEP also serves as Executive of the EPB under the authority of the Agency Program Management Council (APMC).

1.2.2 The PAEP and the EPP integrate Agency protection efforts. The PAEP and EPP focus on threats that are cross-Agency, that may impact national security, or that may impact a system critical to NASA or the U.S. Government. As an integrator, the PAEP will facilitate discussions with external agencies on threats, risks, and mitigations. The PAEP does not supplant the authorities or responsibilities of Mission Directorate Associate Administrators or Officials-in-Charge for the protection of systems under their cognizance.

1.2.3 The PAEP and EPP will use threat information, including classified threat information, and insight into system protection activities of Mission Directorates and Offices, to integrate system protection work across the Agency. This information and insight will inform the work and recommendations of the PAEP and EPP to ensure resilience of the enterprise.

1.2.4 The effectiveness of the PAEP and EPP is highly dependent upon the quality and timeliness of information available from Mission Directorates and Offices, including the Office of Protective Services Intelligence Division and Counterintelligence Division. As a result, threat information, threat assessments, national security risks, and cybersecurity risks must be communicated promptly.

1.2.5 The relationship of the EPP to selected NASA organizations is shown in Figure 1.



**Figure 1, Relationship of Enterprise Protection Program to Other NASA Organizations**

1.2.6 The PAEP organizes and manages the EPB, chartered under the authority of the APMC.

1.2.7 The Associate Administrator is Chair of the EPB, and the PAEP serves as Executive of the EPB.

1.2.8 Much of the work of the PAEP and EPP involves the use of classified threat and technical information. As a result, the PAEP and NASA EPP representatives from Mission Directorates, Offices, and Centers will hold requisite security clearances.

**CHAPTER 2. Responsibilities**

*Note: This chapter defines the responsibilities of key officials in the EPP. The roles and responsibilities of senior NASA management, along with fundamental principles of governance, are defined in NPD 1000.0 and further described in NPD 1000.3.*

**2.1 Associate Administrator**

2.1.1 The Associate Administrator:

a. Is the Agency decision maker for enterprise protection decisions, actions, and direction that are not adjudicated at lower levels.

b. Chairs the EPB.

c. Provides resources for EPP implementation and operation, including budget and personnel.

**2.2 Principal Advisor for Enterprise Protection (PAEP)**

2.2.1 The PAEP:

a. Leads the cross-Agency EPP.

b. Manages and operates EPB.

c. Serves as the NASA representative to the Space Security and Defense Program and similar entities and functions.

d. Maintains awareness of the threat environment.

e. Identifies and proposes enterprise and system protection recommendations to existing policies, requirements, budgeting, acquisition, design, and development processes.

f. Integrates cross-Agency threat and protection issues by identifying cross-Agency gaps and vulnerabilities to enterprise or systems against threats.

g. Reviews U.S. Government national space protection policies and strategies for potential application to NASA enterprise and system protection.

h. Advises the Associate Administrator, EPB, Officials-in-Charge of Headquarters Offices, Mission Directorates Associate Administrators, Center Directors, Program Directors, Program Managers, and Project Managers on threats, vulnerabilities, susceptibilities, and mitigations for NASA programs, projects, and activities, with an emphasis on issues that are cross-Agency, pertain to national security, or pertain to systems critical to NASA or the U.S. Government,

i. Develops an EPP Execution Plan to describe and govern the operation of the EPP.

j. Obtains and directs subject matter experts for the EPP through reassignments, details, interagency support, and commercial services with requisite clearances.

k. Reviews and approves all proposed NASA activities with the Space Security and Defense Center and other entities with similar functions.

l. Develops the EPP annual workplan, including any related budget requests

**2.3 Officials-in-Charge of Headquarters Offices, Mission Directorates Associate Administrators, Center Directors, Program Directors, Program Managers, and Project Managers**

2.3.1 Officials-in-Charge of Headquarters Offices, Mission Directorates Associate Administrators, Center Directors, Program Directors, Program Managers, and Project Managers shall:

a. Maintain awareness of threats to the enterprise and to systems, including flight systems, ground systems, and supporting infrastructure systems, with emphasis on those systems under the responsibility or control of the Official-in-Charge, Mission Directorate Associate Administrators, Center Directors, Program Directors, Program Managers, or Project Managers.

b. Document in risk management systems the risks derived from threats, risk mitigation, and acceptance of residual risk to systems, including flight systems, ground systems, and supporting infrastructure systems.

c. Support the PAEP, EPP, and EPB in execution of the responsibilities and requirements of this interim directive for the protection of space systems, aeronautical systems, ground systems, and infrastructure systems.

d. Implement enterprise protection recommendations and requirements of the PAEP approved by the EPB, subject to statutory requirements.

d. Provide subject matter expert staffing to the EPP as requested or needed in a timely manner.

**2.4 NASA Agency Program Management Council (APMC)**

2.4.1 The APMC shall:

a. Charter the EPB.

b. Review and approve the EPP annual operating plan and budget.

**2.5 NASA Enterprise Protection Board (EPB)**

2.5.1 The EPB has the responsibility to operate in accordance with NC 1000.40.

*Note: Functions of the EPB are described in the Board’s charter accessible in the NODIS Document Library at* [*https://nodis3.gsfc.nasa.gov/OPD\_docs/NC\_1000\_40\_.pdf*](https://nodis3.gsfc.nasa.gov/OPD_docs/NC_1000_40_.pdf)*.*

**Appendix A. Definitions**

**System Protection**. Protection of a system, including flight system, ground system, or infrastructure system, from threats.

**Appendix B. Acronyms**

APMC Agency Program Management Council

ARMD Aeronautics Research Mission Directorate

EPB Enterprise Protection Board

EPP Enterprise Protection Program

HEOMD Human Exploration and Operations Mission Directorate

NASA National Aeronautics and Space Administration

NC NASA Charter

NID NASA Interim Directive

NPD NASA Policy Directive

NPR NASA Procedural Requirements

OCE Office of the Chief Engineer

OCIO Office of the Chief Information Officer

OPS Office of Protective Services

OSI Office of Strategic Infrastructure

OSMA Office of Safety and Mission Assurance

PAEP Principal Advisor for Enterprise Protection

SMD Science Mission Directorate

SSDP Space Security and Defense Program

STMD Space Technology Mission Directorate

U.S. United States

OIIR Office of Interagency and International Relations