NASA Policy Directive

NPD 8074.1
Effective Date: August 11, 2009
Expiration Date: August 11, 2020

COMPLIANCE IS MANDATORY

Printable Format (PDF)

Request Notification of Change (NASA Only)

Subject: Management and Utilization of NASA's Space Communication and Navigation Infrastructure - Revalidated 2/27/15

Responsible Office: Human Exploration and Operations Mission Directorate

CHANGE HISTORY

Chg#	Date	Description/Comments
1	02/27/2015	Update to comply with 1400 Compliance,with administrative changes, update applicable documents, and added Attachment A for references.

1. POLICY

a. It is NASA's policy to maintain a unified process for the development and utilization of Agency space communications and navigation (C&N) infrastructure and for the enhancement of this infrastructure to enable new capabilities for the future. NASA's space C&N infrastructure includes the following:

(1) The ground and space-based facilities and assets of what are presently known as the Near Earth Network (NEN), the Deep Space Network (DSN), and the Space Network (SN).

(2) Communications networks around all heavenly bodies beyond Earth, including the Moon, Mars, or other planets, providing support to surface as well as orbital user missions.

2. APPLICABILITY

This directive is applicable to NASA Headquarters and NASA Centers, including Component Facilities and Technical and Service Support Centers. This directive applies to the Jet Propulsion Laboratory, a Federally-Funded Research and Development Center, and other contractors only to the extent specified or referenced in the appropriate contracts.

3. AUTHORITY

15 U.S.C. 272(b), Section 13, Functions of Secretary and Institute.

4. APPLICABLE DOCUMENTS AND FORMS

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

b. NPD 1000.3, The NASA Organization.

c. NPD 8070.6, Technical Standards.

d. OMB Circular A-119, Federal Participation in the Development and Use of Voluntary Consensus Standards.

5. RESPONSIBILITY

a. NASA's Human Exploration and Operations Mission Directorate shall manage the space C&N infrastructure through the Space Communications and Navigation (SCaN) Program Office, as prescribed by NPD 1000.0A, NASA Governance and Strategic Management Handbook, and NPD 1000.3, The NASA Organization.

b. The SCaN Program Office shall:

(1) Be the Agency's central authority for designing, developing, and implementing a single unified process for the Agency's space C&N infrastructure.

(2) Work closely with the Mission Directorates to identify future C&N requirements and resolve technical capability gaps.

(3) Develop the space C&N capabilities in anticipation of future requirements.

(4) Work closely with all technical standards used to implement C&N infrastructure with the Office of the Chief Engineer for adoption as NASA Technical Standards and inclusion in the overall set of NASA Standards, as prescribed by NPD 8070.6, Technical Standards, and OMB Circular A-119, Federal Participation in the Development and Use of Voluntary Consensus Standards.

(5) Provide the Agency Program Management Council (PMC) with an annual assessment of integrated, mission-based capability gaps and an update of new C&N technologies.

(6) Develop the architecture and standards necessary to enable the Agency's C&N infrastructure to be interoperable with those of other agencies and international partners.

(7) Coordinate with Mission Directorates in the planning of space C&N requirements for all new missions, projects, Announcements of Opportunity (AO) and NASA collaborations.

c. NASA Mission Directorates (MD) shall:

(1) Use SCaN networks to meet their communication and navigation requirements for human and robotic space missions. However, where appropriate and cost-effective for the Agency, MDs, consultation from with the SCaN Program Office, may use pre-existing infrastructure external to NASA for this purpose, provided that as no new facilities are constructed using NASA funds.

(2) Not design or develop space C&N infrastructures, to include the surface of the Moon, Mars, or other planets, independent of the SCaN Program.

(3) Work with the SCaN Program Office to identify and resolve capability gaps.

(4) In coordination with SCaN, develop space C&N technologies relevant to their operating platforms that are compatible and interoperable with SCaN infrastructure.

d. NASA's Office of the Chief Engineer shall:

(1) Provide oversight of the process by which capability gaps can be identified and present to the PMC if needed.

(2) In consultation with SCaN, create and maintain a set of NASA Standards that include those selected for implementation within NASA's space C&N infrastructure and specify mechanisms by which their use by NASA space fight programs/missions will be required.

6. DELEGATION OF AUTHORITY

None.

7. MEASUREMENTS/VERIFICATION

a. Compliance with the NPD will be evaluated on a continuous basis by the SCAN office in HEOMD at meetings regularly held throughout the year, they are:

(1) SCAN Quarterly Program Managers Review

(2) SCAN Board of Directors meeting

8. CANCELLATION

NPD 8074.1, Management and Utilization of NASA's Space Communication and Navigation Infrastructure, dated August 11, 2010.

Revalidated with change 1 2/27/15, original signed by:

/s/ Charles F. Bolden, Jr.,

Administrator

ATTACHMENT A: REFERENCES

A.1 NPD 2570.5E, NASA Electromagnetic Spectrum Management

A.2 NPR 2570.1B, NASA Radio Frequency (RF) Spectrum Management Manual

A.3 NPR 7120.10, Technical Standards for NASA Programs and Projects

(URL for Graphic)

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