



**NPD 1080.1B**  
Effective Date: July 09, 2008  
Expiration Date: July 09, 2013

**COMPLIANCE IS MANDATORY**

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## **Subject: Policy for the Conduct of NASA Research and Technology (R&T)**

**Responsible Office: Science Mission Directorate**

### **1. POLICY**

a. Purpose: This NASA Policy Directive (NPD), in conjunction with NPD 7120.4, Program/Project Management, establishes the policy and responsibilities for the conduct of NASA's Research and Technology (R&T) programs and associated projects. This policy is meant to be flexible, adaptable and conformable to the diverse nature of R&T programs that NASA conducts and manages. b. Definition: NASA's R&T programs include aeronautics and space research and analysis programs encompassing the traditional disciplines, such as astrophysics, planetary science, heliophysics, Earth science, space medicine, and biological and physical sciences. NASA's space flight and ground support systems technology development programs, basic aeronautics and flight research programs, and research programs in education are also included. c. Scope: As mandated in the National Aeronautics and Space Act of 1958, as amended, two of NASA's objectives are the expansion of human knowledge and the establishment of long-range studies of aeronautic and space activities for peaceful and scientific purposes. Therefore NASA shall undertake only R&T programs whose objectives are clearly defined and consistent with the Agency's vision and mission, as defined by NPD 1001.0, NASA Strategic Plan.

### **2. APPLICABILITY**

This NPD is applicable to NASA Headquarters and NASA Centers, including Component Facilities and Technical and Service Support Centers. This language applies to the Jet Propulsion Laboratory (JPL), other contractors, grant recipients, or parties to agreements only to the extent specified or referenced in the appropriate contracts, grants, or agreements.

### **3. AUTHORITY**

42 U.S.C. 2473 (c) (I), Section 203 (c) (I) of the National Aeronautics and Space Act of 1958, as amended.

### **4. REFERENCES**

a. NPD 1001.0, NASA Strategic Plan. b. NPD 1000.0, NASA Strategic Management and Governance Handbook. c. NPD 1360.2, Initiation and Development of International Cooperation in Space and Aeronautics Programs. d. NPR 1080.1, NASA Research and Technology Management e. NPD 2200.1, Management of NASA Scientific and Technical Information f. NPR 2200.2, Requirements for Documentation, Approval, and Dissemination of NASA Scientific and Technical Information g. NPR 5100.4, Federal Acquisition Regulation Supplement (NASA/FAR Supplement) [48 CFR 1800-1899] h. NPR 5800.1, Grant and Cooperative Agreement Handbook i. NPD 7120.4, Program/Project Management j. NPR 7120.5, NASA Space Flight Program and Project Management Requirements. k. NPR 7120.8, NASA Research and Technology Program and Project Management Requirements. l. 14 CFR, Aeronautics and Space, Part 1275 Research Misconduct m. 48 CFR, Federal Acquisition Regulations

### **5. RESPONSIBILITY**

Implementation of NASA's R&T policy involves planning, selection, management, oversight, review, and evaluation processes. Specific implementation responsibilities falling upon NASA offices, officials, and individual researchers

are identified in NPR 1080.1, NASA Research and Technology Management, and in NPR 7120.8, NASA Research and Technology Program and Project Management Requirements. NASA solicits proposals for R&T investigations using Broad Agency Announcements (BAAs), such as Announcements of Opportunity (AOs) and NASA Research Announcements (NRAs), or NASA Cooperative Agreement Notices (CANs). AOs and NRAs are described in NPR 5100.4, Federal Acquisition Regulation Supplement (NASA/FAR Supplement); CANs are described in NPR 5800.1, Grant and Cooperative Agreement Handbook. Advisory committees and other external groups composed of independent stakeholders are also important to the formulation and oversight of NASA's R&T programs to ensure that programs represent the highest quality research and technology efforts in the national interest. NASA seeks external advice from a diverse range of institutions representing a variety of perspectives and backgrounds.

a. Process: (1) Plan and Prioritize: NASA's focus in selection and program planning of R&T is on excellence. The Agency will achieve excellence by selecting the best ideas to be carried out by the most capable people, thereby providing the American public the greatest return on its investment in NASA R&T programs. Additionally, NASA's role as an R&T Agency requires a high-quality internal R&T capability and knowledgeable civil service personnel working at the forefront of research and technology. R&T program planning shall be consistent with the Agency's vision and mission, as defined by NPD 1001.0, NASA Strategic Plan and with the Administration's stated priorities. (2) R&T Management: NASA shall formulate and execute R&T in accordance with the requirements of NPR 7120.8, NASA Research and Technology Program and Project Management Requirements and NPR 1080.1, NASA Research and Technology Management. (3) Solicitation, Review, and Selection of R&T Proposals: (a) Open competition and peer review (the technical review of proposals by qualified, unbiased personnel) shall be the standard method of ensuring that the most qualified R&T proposals are selected. A process employing less than full and open solicitation and selection of proposals may be used when the MDAA determines that one or more activities can best be implemented by a known, existing capability. The specific process of the solicitation may vary depending on program requirements, and proposals may be received other than through a solicitation. (b) The solicitation shall state the evaluation factors used to evaluate proposals and provide a clear description of the research areas of interest. (c) Selection officials shall make selection decisions based on the published criteria. (d) The solicitation, review, and selection process for R&T proposals shall be properly documented. (4) Misconduct: NASA shall handle allegations of R&T misconduct following processes established in NPR 1080.1, NASA Research and Technology Management and 14 CFR Part 1275, Research Misconduct. (5) Oversight and Evaluation: (a) Assessments of the quality, effectiveness, and impact shall be made on a regular basis through all phases of an R&T program. The minimum criteria for these assessments are defined in NPR 7120.8, NASA Research and Technology Program and Project Management Requirements. (b) When possible, the assessments shall be based on measurable, including quantitative, criteria; it is recognized, however, that quantification is sometimes not possible for fundamental research. Other assessments based on government-wide mandates, such as the Government Performance and Results Act (GPRA) and Program Assessment and Rating Tool (PART) are described in NPR 1080.1, NASA Research and Technology Management. (6) Form Partnerships: NASA shall encourage the participation of scientists, engineers, technologists and students from industry, other Government agencies, academia, NASA Centers, industrial firms and nonprofit organizations in NASA's R&T programs. (7) Establish International Collaborations: (a) International coordination and the mutually beneficial conduct of international cooperation programs, projects, and activities are encouraged when such participation is consistent with NASA's mission and has technical, scientific, economic, or foreign policy benefits for NASA or the United States. (b) Arrangements for cooperative international projects shall take into consideration NASA's fiduciary responsibility to ensure adequate technical insight to maximize the probability of mission success. (c) NASA shall lead where appropriate, but will also join partnerships led by other countries and those partnerships in which leadership is shared. NASA will follow the policy set forth in NPD 1360.2, Initiation and Development of International Cooperation in Space and Aeronautics Programs, in conducting international collaborations. (8) Data Availability: (a) Per NPD 2200.1, NASA is required to provide for the widest practicable and appropriate dissemination of the Scientific and Technical Information (STI) resulting from NASA's R&T efforts, while precluding the inappropriate dissemination of sensitive but unclassified information. (b) Per NPD 2200.1, NASA is required to disseminate STI in a manner consistent with U.S. laws and regulations, Federal information policy, intellectual property rights, technology transfer protection requirements, and budgetary and technological limitations.

## 6. DELEGATION OF AUTHORITY

None.

## 7. MEASUREMENTS

Many different mechanisms are available for assessing and ensuring quality. Each of these mechanisms can play a significant role at some stage in the decision making and evaluation processes. The cognizant Mission Directorates and Mission Support Offices shall periodically review and make recommendations on the metrics that are used for inclusion in the Agency's budgetary, performance planning, and review documents and for other evaluative purposes.

## 8. CANCELLATION

NPD 1080.1A, NASA Science Policy, dated September 30, 2003

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**/s/ Michael D. Griffin, Administrator**

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**ATTACHMENT A: (TEXT)**

None.

**(URL for Graphic)**

None.

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