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# NASA Policy Directive

**NPD 8900.5B**Effective Date: December 22,  
2011Expiration Date: December 22,  
2016**COMPLIANCE IS MANDATORY**[Printable Format \(PDF\)](#)

Request Notification of Change (NASA Only)

## **Subject: NASA Health and Medical Policy for Human Space Exploration**

**Responsible Office: Office of the Chief Health & Medical Officer**

### **1. POLICY**

It is NASA's policy to: a. Provide a healthy and safe environment for crewmembers to enable successful human space exploration. b. Provide health and medical care systems for crewmembers for all mission phases--prior, during, and after space flights. (Note: Health is defined as encompassing physiological, psychological, and dental well-being. Medical refers to the treatment of illness and injury.) c. Update crewmember health and medical services based on best supporting evidence and current standards of medical practice, lessons learned, risk management, and expert recommendations. d. Design initial and recurrent health and medical training for crewmembers, consistent with mission requirements and commensurate with available resources and priorities. e. Establish space flight health and medical standards that address: (1) Health and medical screening, evaluation, and certification (including medical selection and retention standards). (2) Health and medical diagnosis, intervention, and care (including management and training). (3) Health maintenance, preventive programs, and countermeasures (including permissible exposure limits, permissible outcome limits, and fitness for duty standards). (4) Habitability, environmental health, planetary protection considerations, and human performance guidelines and standards, as appropriate. f. Sponsor health and medical clinical research to enable human space exploration.

### **2. APPLICABILITY**

This NASA Policy Directive (NPD) is applicable to NASA Headquarters and all NASA Centers, including Component Facilities and Technical and Service Support Centers. This language applies to the Jet Propulsion Laboratory and other contractors to the extent specified or referenced in the appropriate contracts or agreements.

### **3. AUTHORITY**

a. The National Aeronautics and Space Act, as amended, 51 U.S.C. 20113(a). b. NPD 1000.0, NASA Governance and Strategic Management Handbook. c. NPD 1000.3, The NASA Organization.

### **4. APPLICABLE DOCUMENTS AND FORMS**

a. NPD 8020.7, Biological Contamination Control for Outbound and Inbound Planetary Spacecraft (Revalidated 11/25/08). b. NPD 8700.1E, NASA Policy for Safety and Mission Success. c. NPD 8900.1G, Medical Operations Responsibilities in Support of Human Space Flight Programs. d. NASA Procedural Requirements (NPR) 7120.11, NASA Health and Medical Technical Authority (HMTA) Implementation. e. NPR 8705.2, Human-Rating Requirements for Space Systems. f. NPR 8900.1, Health and Medical Requirements for Human Space Exploration. g. NASA-STD-3001, NASA Space Flight Human System Standard - Vol. 1, 2.

## **5. RESPONSIBILITY**

a. The Chief Health and Medical Officer (CHMO) shall: (1) Promulgate health and medical policy for Human Space Exploration. (2) Serve as NASA's independent HMTA. (3) Ensure Agency-wide implementation of HMTA as described in NPR 7120.11, NASA Health and Medical Technical Authority (HMTA) Implementation. (4) Establish and maintain human health and medical standards for space flight. (5) Define appropriate levels of health and medical care for space flight. (6) Review and approve all human health-related and medical requirements for space exploration. (7) Review and approve all human health-related research requirements and deliverables from applicable Mission Directorates and Offices. (Note: Human health research deliverables are biomedical knowledge, pharmaceuticals, procedures, protocols, hardware, software, health or medical devices, or technology developed to directly affect the health and performance of crewmembers derived from completed research studies that are ready for transfer to the appropriate operational community.) (8) Approve operational implementation of human health and performance-related research deliverables that enable human space exploration. (9) Approve operational use of health and medical systems and technologies prior to their use in space exploration. (10) Consult and coordinate with the Associate Administrator for the Science Mission Directorate, or the designee for planetary protection, regarding planetary protection issues related to health and medical requirements to ensure coordination with existing NASA planetary protection policy. b. The Associate Administrator for the Human Exploration and Operations Mission Directorate shall: (1) Formulate Directorate-level requirements for Exploration Systems, including health-related and medical requirements, based on Agency-level exploration requirements and NASA standards. (2) Develop and mature targeted human health and medical research and technologies aimed at enabling sustained and affordable human and robotic exploration to an appropriate stage of readiness level for final review, approval, and implementation. (3) Manage flight crew health and safety to include the following: (a) Implementation of crew health and medical care systems. (b) Compliance with health and medical requirements. (c) Management of in-flight research activities. (d) Crew participation in in-flight research, as appropriate. (e) Integration of and use of CHMO-approved health and medical technologies for extravehicular and intravehicular activity. c. The Deputy Chief Technologist shall be responsible for integrating, coordinating, and tracking the technology investments across the Agency, including the mission-focused investments (e.g., NASA health, medical, and performance technologies) made by the NASA mission directorates. d. The Associate Administrator for the Science Mission Directorate, or the designee for planetary protection, shall be responsible for coordinating with the CHMO regarding health and medical issues related to planetary protection for human space exploration.

## **6. DELEGATION OF AUTHORITY**

None.

## **7. MEASUREMENTS**

The Office of the Chief Health and Medical Officer will determine adherence to this policy through assessments of related activities and operations.

## **8. CANCELLATION**

NPD 8900.5A, NASA Health and Medical Policy for Human Space Exploration, dated May 16, 2006.

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**/s/ Charles F. Bolden, Jr.  
Administrator**

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**ATTACHMENT A: (TEXT)**

None.

**(URL for Graphic)**

None.

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