NASA Human Integration Design Handbook (HIDH)
Revitalization of Space-Related Human Factors, Environmental, and Habitability Data and Design Guidance

STANDARDS

NASA Human Integration Design Handbook (HIDH)
Provides guidance and data to aid vehicle / habitat designers in human-system integration
• Provides guidance and data to aid vehicle / habitat designers in human-system integration requirements from SFHSS Standards

HANDBOOK

NASA-STD-3000
• Served as NASA’s first human factors standard
• Specified how to design systems to support human health, safety, and productivity during space flight
• Was written primarily for the International Space Station

EXAMPLE:
• Data on temperature effects on human physiology and performance
• Guidance for limits and implementation based on expertise, lessons learned

Handbook Chapters include:
• Anthropometry And Biomechanics
• Human Performance Capabilities
• Natural And Induced Environments
• Architecture
• User Interfaces
• Hardware And Equipment
• Facility Management
• Health Management
• Extra-Vehicular Activity (EVA)

EXAMPLE:
• The vehicle / habitat atmosphere including pressure, humidity, temperature, ... shall be controlled in a manner that yields a healthy comfortable environment of respirable air to the crew

PROGRAM-SPECIFIC REQUIREMENTS

These documents drive program-specific requirements

EXEMPLARY:
• The system shall maintain the atmospheric temperature within the range of 18 °C (64.4 °F) to 27 °C (80.6 °F) during all nominal flight operations, excluding suited operations, ascent, entry, landing, and post landing.

NASA Human Space Flight Human System Standard
• Updates crew health and performance standards to apply to all future systems with human crews (spacecraft, landers, habitats, rovers, EVA suits, etc.)
• Requires that program specific requirements be derived from the standard with guidance from the HIDH

Human Integration Design Handbook (HIDH)
• Provides guidance and data to aid vehicle / habitat designers in human-system integration

NASA-JSC HIDH development team has finalized the format and began developing section with subject matter experts. Handbook expansion and maintenance is planned to assure its retention as a resource for human spaceflight. If you are interested in participating in the writing, reviewing, enhancing of this document, contact any of the below:
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WE INVITE YOUR PARTICIPATION!

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NASA Space Flight Human System Standard
Volume 1
Cross-Health
http://ntrs.nasa.gov/search.jsp?
Volume 2
Habitability and Environmental Health
http://ntrs.nasa.gov/search.jsp?