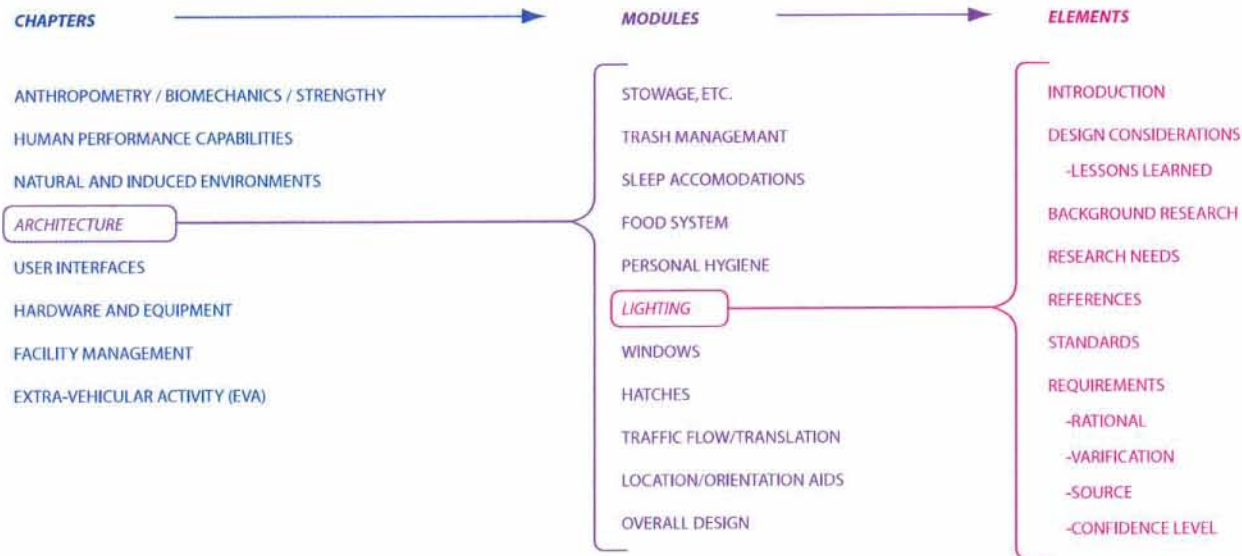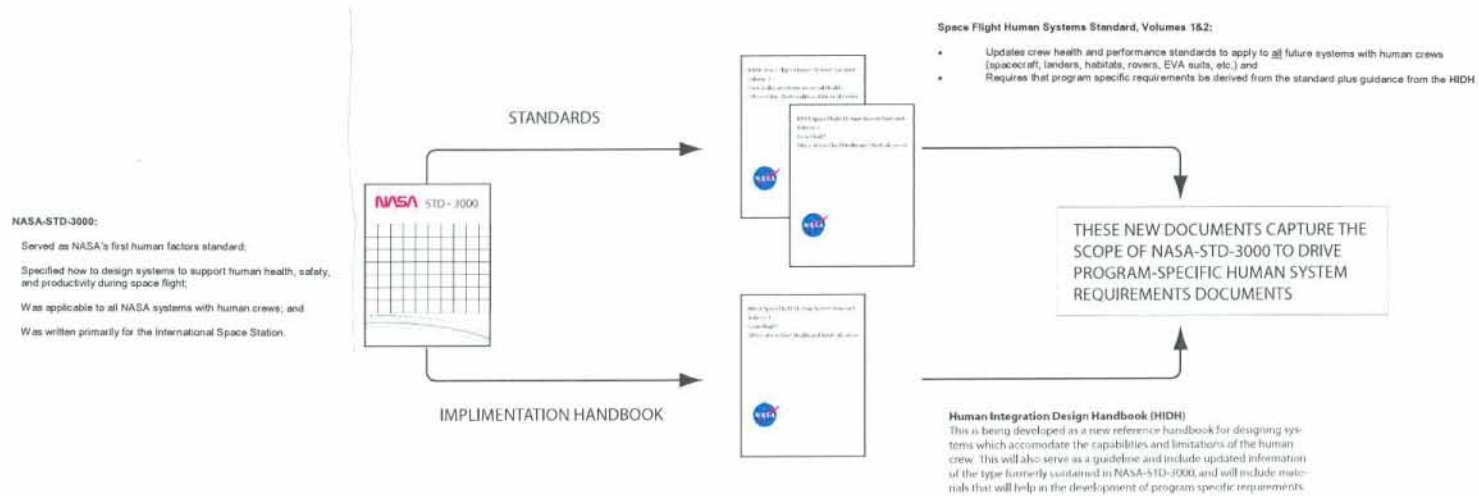# NASA Human Integration Design Handbook (HIDH)

Revitalization of Space-Related Human Factors, Environmental and Habitability Data

Dane Russo, Lynn Pickett, Barry Tillman, Tico Foley

NASA?JSC, Mail Code SF, 2101 NASA Parkway, Houston, TX 77058

Space Flight Human Systems Standard, Volumes 1&2:

- Updates crew health and performance standards to apply to _all_ future systems with human crews (spacecraft, landers, habitats, rovers, EVA suits, etc.) and
- Requires that program specific requirements be derived from the standard plus guidance from the HIDH.

STANDARDS

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 applicable to all NASA systems with human crews; and

Was written primarily for the International Space Station.

NASA STD - 3000

THESE NEW DOCUMENTS CAPTURE THE SCOPE OF NASA-STD-3000 TO DRIVE PROGRAM-SPECIFIC HUMAN SYSTEM REQUIREMENTS DOCUMENTS

IMPLIMENTATION HANDBOOK

Human Integration Design Handbook (HIDH)
This is being developed as a new reference handbook for designing systems which accomodate the capabilities and limitations of the human crew. This will also serve as a guideline and include updated information of the type formerly contained in NASA-STD-3000, and will include materials that will help in the development of program specific requirements.

CHAPTERS	MODULES	ELEMENTS
ANTHROPOMETRY / BIOMECHANICS / STRENGTHY	STOWAGE, ETC.	INTRODUCTION
HUMAN PERFORMANCE CAPABILITIES	TRASH MANAGEMANT	DESIGN CONSIDERATIONS
NATURAL AND INDUCED ENVIRONMENTS	SLEEP ACCOMODATIONS	-LESSONS LEARNED
ARCHITECTURE	FOOD SYSTEM	BACKGROUND RESEARCH
USER INTERFACES	PERSONAL HYGIENE	RESEARCH NEEDS
HARDWARE AND EQUIPMENT	LIGHTING	REFERENCES
FACILITY MANAGEMENT	WINDOWS	STANDARDS
EXTRA-VEHICULAR ACTIVITY (EVA)	HATCHES	REQUIREMENTS
	TRAFFIC FLOW/TRANSLATION	-RATIONAL
	LOCATION/ORIENTATION AIDS	-VARIFICATION
	OVERALL DESIGN	-SOURCE
		-CONFIDENCE LEVEL

WE INVITE YOUR PARTICIPATION !

NASA-JSC HIDH development team is finalizing the format, prioritizing topic areas for expansion and update, and inviting subject matter experts to contribute. Handbook expansion and maintenance is planned to assure its retention as a resource for human factors and human spaceflight. If you are interested in participating in the writing of this document, contact any of the below:

Dane Russo 281.483.3705 / Janis Connolly 281.483.2318 / Barry Tillman 281.483.7131