

## **IAASS Human Performance and Health Technical Committee Mandate**

### *Harmonized International Goals*

- Promote an internationally shared understanding among stakeholders (e.g., space agencies, educational institutions, industry) of processes, practices and technological goals needed for safe and productive manned missions (sub-orbital and orbital flights, orbital or deep-space celestial body sojourns,). This includes crew selection strategies, crew and ground personnel training, advanced technology requirements, computerized procedures, advanced procedures, shared data warehouse, etc.

### *Human-Systems Integration Directive*

- Assess, and increase awareness of, space mission effects on crew and ground personnel task performance and safety. This includes human-system integration best practices and lessons-learned from space missions as well as other safety-critical domains (e.g., medical, nuclear power, aviation, extreme environments).
- Assess, and disseminate, effective strategies that will advance Human Performance Support Systems (HPSS) development to help the crew and ground personnel to meet mission objectives. Examples include HPSS that can be efficiently learned and operated, that maintain or reduce workload, minimize human error and error consequences, maintain situation awareness, assist in timely task completion, and assist crew in maintaining sufficient clinical, cognitive, and behavioral health.

### *Space Medicine Directive*

- Assess, and increase awareness of, spaceflight-stressor effects on crew physiological and behavioral health (i.e., space medicine) including radiation, isolation and confinement, altered gravity, etc.
- Assess, and disseminate, effective crew health protection strategies and countermeasures to support crew survival, function, and performance during nominal and off-nominal operations. Examples include exercise regimens, dietary needs, food and medication degradation, injury treatment, etc.

### *Education Directive*

- Educate and train investigators, engineers, astronauts, and other stakeholders, giving them the opportunity to learn from experienced leaders and internationally agreed upon best practices, and to ensure rigorous, relevant, and internationally integrated research programs.