

HUMAN SPACEFLIGHT SYMPOSIUM (B3)  
Astronaut Training, Accommodation, and Operations in Space (5)

Author: Dr. Sandra Magnus  
American Institute of Aeronautics and Astronautics (AIAA), United States, sandym@aiaa.org

KEYNOTE: DESIGNING MISSIONS FOR LONG DURATION AND REMOTE DESTINATION  
SPACEFLIGHT

**Abstract**

The International Space Station, now continually crewed since 2000, has provided many valuable lessons that can be used to help define and shape beyond low Earth orbit exploration architecture. Certainly how mission operations are planned and executed will need to change as the mission duration and distance increase. Lessons from ISS range from how to design the hardware and train the crew to how to structure the program. In addition, the International Space Station is an example of how the world community can collaborate on long term, complex programs. The presentation will discuss lessons learned from living on the ISS and thoughts on how we may move forward to extend missions beyond low Earth orbit. In addition some thoughts on design philosophies for space hardware, mission operations, crew selection and training will be presented.