

HUMAN SPACE ENDEAVOURS SYMPOSIUM (B3)  
Overview Session (Present and Near-Term Human Space Flight Programs) (1)

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THE INTERNATIONAL SPACE STATION AS A TRUE TEST BED

**Abstract**

For more than ten years, the International Space Station has been assembled in space, while serving as an orbiting laboratory for biomedical, Earth observation, and materials research. 2010 has seen the completion of all major assembly operations, as NASA's Space Shuttle program completes outfitting the ISS before its retirement. With this goal accomplished, NASA has announced an ambitious new program to expand use the ISS as a test bed for conducting research, development test and evaluation (RDTE) of technologies, instruments, and spacecraft systems and components. Research areas will include a variety of disciplines, from spacecraft servicing to communications, robotics demonstrations to the regenerative environmental control systems currently being utilized onboard, new power systems to advanced propulsion. The ISS can also serve as a proving ground and market for new commercial space activities. These are but a few examples of the possibilities available to future users of the ISS, and opportunities exist in nearly every area for users from academia, industry, and government. This new effort, spread across NASA and beyond, will help develop the key technologies necessary to expand the influence and knowledge of humanity, both on Earth and deeper into space.