



American Institute of Aeronautics and Astronautics

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Web site: www.aiaa-houston.org

GN&C Technical Committee

“Lunch-and-Learn”

Use of ISS for Exploration

Michael L. Raftery

ISS Deputy Program Manager

Boeing



Tuesday, Nov. 8, 2011

Gilruth Center Lone Star Room

Noon to 1:00 PM

Lunch option available with RSVP at www.aiaa-houston.org by Nov. 2

NASA is hard at work developing the Multi-Purpose Crew Vehicle (MPCV) and the Space Launch System (SLS). These systems will enable missions beyond low earth orbit in the near future and plans for their use are ramping up. The Global Exploration Roadmap (GER) provides an International framework for exploration and a range of possible destinations. My presentation will describe one possible implementation of the GER which puts emphasis on use of ISS for exploration. We will also discuss low thrust trajectories using solar electric propulsion as a means to reduce the overall number of launches needed to accomplish these bold new missions. (image: NASA)

As the International Space Station (ISS) Deputy Program Manager, Michael Raftery leads Boeing in its role as prime integrating contractor for NASA's ISS program to design, test, launch, and operate the orbiting laboratory. Prior to this, Raftery was the ISS Vehicle Director in Houston responsible for performance of the ISS US segment hardware and systems. This included primary structures, electrical power, thermal control, life support, and mechanical systems. The KSC portion of the Vehicle team was responsible for pre-launch testing and processing of all US elements prior to their launch on the Shuttle. From 1998 to 2001, Raftery was the Director of Avionics and responsible for the design and delivery of the US data processing, communication, and GN&C systems for ISS. Part of this assignment was responsibility for end-to-end hardware / software integration (HSI) for ISS including interface testing with all International Partner data systems. From 1995 to 1998, he was the Systems Integration Lab manager and was responsible for the design and construction of the ISS systems integration lab (ISIL) and software verification facility (SVF) in Houston. Raftery joined the Boeing Company in 1980 on the 767 program. He worked on various Space Systems development programs including the Advanced Launch System (ALS), National Launch System (NLS), and Sea Launch programs before moving from Seattle to Houston in 1995.

This event is open to all interested attendees. Chicken salad or tuna salad sandwich, small dessert, and drink will be available for \$5 for members, \$7 for non-members with RSVP at www.aiaa-houston.org by Nov 2. The meal will be available starting at 11:45 AM. Professional Engineers earn one hour of credit toward Continuing Education requirements by attending this event. For additional information please contact Dr. Steven E. Everett, GN&C Technical Committee Chair at 281-226-8503 or steven.e.everett@boeing.com.