GSAW 2008 Tutorial B:

Special Topics in Ground Systems for Satellite Operations

Length: Full day

Overview:
Tutorial Detailed Objectives

Ground Systems Overview
- Increased awareness and understanding of:
    - Major functional areas within Ground Segments
    - Interrelationship between major functions
    - Modes of operations

Ground Systems Transmit and Receive Functions
- Become familiar with the basic functions for transmit and receive
- Gain exposure to common transmit and receive elements and subsystems
    - The relationship between the functionality and the elements and subsystems

COTS Lessons Learned
- Case studies on past problems when using COTS components
- Case study on how you can successfully use COTS in development

Current and Future Ground Systems Trends
- Case studies on current ground system architectures
- Discussion on future technology trends and implications for ground system architectures

Instructors: James Anderson, Jim Shneer, Donald Town, Scott Turner, The Aerospace Corporation

Biographies:
Corporation technical staff.
The average years of industry experience for the team is 30.

J. V. Anderson:
B.S. in Information Technology, University of Phoenix
27 years experience in management; interface control; modeling and simulation; test planning, definition, and execution; and requirements analysis for various acquisition programs of communications systems.

J. Shneer:
B.S. in Mathematics, George Washington University
Over 40 years of experience in program management and systems engineering. Responsible for requirements definition, source selection, site selection, system and software design, development, test, deployment, operations and retirement for over a dozen major satellite ground systems and public safety computer-assisted communications systems.

D. Town:
Ph.D. M.S. B. S.
Twelve years industry experience in the development of embedded computer systems for aerospace applications.
Twenty years experience at Aerospace, including the management of research programs in computer systems development and assurance, advanced technology development, satellite systems and remote sensing payload acquisition, ground systems acquisition, and software assurance and applications development.

S. Turner:
B.S. in Computer Science, Washington University, St. Louis
M.S. in Computer Science, University of California at Los Angeles
Ph.D. in Computer Science (Artificial Intelligence), UCLA
Nineteen years experience at the Aerospace Corporation in software acquisition, software and system architecture, and satellite ground systems. He was the architect and primary developer of STARS, the corporate system for monitoring launch vehicle telemetry. He has numerous technical publications, including several books, and had given keynote presentations at several major conferences.
Prior to joining Aerospace he worked at McDonnell-Douglas, Texas Instruments and the Rand Corporation. Dr. Turner has also been a teaching assistant and lecturer at UCLA

Who Should Attend:
Personnel responsible for the staffing, management, acquisition, development, and/or maintenance of ground systems. Personnel who deal with COTS in system development. Attendees would benefit from having taken the "Ground Systems for Satellite Operations Primer and Acquisition Considerations" tutorial presented at GSAW 2006 and 2007, but it is not necessary.