

GSAW 2006 Tutorial A:

Ground Systems for Satellite Operations Primer & Acquisition Considerations

Length: Full day

Overview:

Tutorial Detailed Objectives

- Increased awareness and understanding of:
 - Major functional areas within Ground Segments
 - Interrelationship between major functions
 - Modes of operations
- Become familiar with a systems engineering view of ground systems
- Gain exposure to common ground system elements and subsystems
 - The relationship between different ground system elements and subsystems
 - The relationship between the functionality and the elements and subsystems
- Develop an acquirer's view of ground systems throughout the lifecycle with focus on the special characteristics of ground systems for requirements, design, and verification phases
- Gain an appreciation for the wide variety of issues that must be addressed during the placement and design of ground systems
- Be able to name the considerations in addressing each of the key issues and the describe interplay among them where appropriate
- Become exposed to the types of tools that are available within Aerospace and the industry that allow the designer to address specific technical trades and the interplay among two or more design factors

(The tutorial will not cover launch.)

Instructors: Sheri Benator, Mel Cutler, Marilyn Dubas, Jim Shneer, David Bart, The Aerospace Corporation
(Contributor: Samuel Gasster, The Aerospace Corporation)

Biographies:

The instructor team includes senior members of the Aerospace Corporation technical staff. The average years of industry experience for the team is 30.

Benator:

M.S. in Mathematics, University of Florida
B.S. in Math Education, University of Florida

Over 25 years of experience in software engineering organizations as a technical manager, analyst, and developer in software and database applications.

Cutler:

Ph.D. in Computer Science, University of California, Los Angeles
M.S. in Computer Science, University of California, Los Angeles
B. S. in Electrical Engineering, Cornell University

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.

Dubas:

M.A. in Mathematics, University of Washington

B. S. in Mathematics, Pepperdine University

Thirty-seven years at the Aerospace Corporation with engineering experience in satellite ground system acquisition support, Independent Readiness Reviews, space system concept development studies, and scientific applications software development.

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.

Description of Intended Students and Prerequisites:

Newcomers to ground systems. Personnel responsible for the acquisition, development, and/or maintenance of ground systems.