

ABSTRACT AND BIOGRAPHY

Managing Technical Issues In Complex, High Risk Projects

Large scale, complex projects are often challenged with a daily flood of technical issues that represent a wide range of safety, schedule, and cost risks. Clear and efficient methods for documenting, assessing, and resolving these issues are vital in order to achieve project milestones and mitigate failure impacts without inappropriately down-playing or over-rating their importance.

In this presentation, a basic understanding of how to categorize technical issues is provided, along with a straight-forward discussion of methods for identification, documentation, review, and resolution. This will include a discussion of the different types of issues that may be encountered in various technologies (electrical, mechanical, fluid, structural, and software) and how to successfully differentiate between true failures and off-nominal but appropriate behavior. Differentiation between technological problems, procedural errors, and human errors will also be addressed, along with an discussion of how to perform problem triage in order to focus an appropriate level of attention on each issue.

Because the different elements of any large project, such as engineering, operations, and logistics, each have unique failure response requirements, tailoring of problem resolution practices to meet the needs of a specific project element or task will be addressed, as well as the larger scale integration of multiple element problem resolution systems into the overall project. Conflict between organizations with competing problem resolution requirements will be discussed, with an aim to understanding and balancing the needs of all organizations. By the end of the presentation, attendees should come away with a basic understanding of how to appropriately balance the need to thoroughly and safely resolve technological issues against the realities of schedule and budget.

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Mr. Wagster is the USA Vehicle Manager for the Space Shuttle Orbiter Endeavour, responsible for addressing and integrating multiple requirements for vehicle checkout, modification, anomaly resolution and repair in order to meet program goals.

Prior to this position, Mr. Wagster was a lead engineer in the Mission Evaluation Room in the Mission Control Center at the Johnson Space Center, managing engineering team activities in the real-time evaluation and resolution of Orbiter in-flight anomalies. He supported a similar task at the Rockwell Mission Support Room in Downey California from 1987 to 1993, and was a B-1B bomber flight control test engineer at Palmdale California

Mr. Wagster has a Bachelor's degree in Mechanical Engineering, a Master's degree in Space Science, and is a licensed professional engineer in the state of Texas.