



## JeTSI GSAW 2015

**February 27, 2015**

**Herndon, Virginia**– Jeffries Technology Solutions, Inc. (JeTSI) is pleased to announce that Mr. Robert Morgenstern, the Mission Systems Engineer for the NASA Joint Polar Satellite System (JPSS) and JeTSI team members Mr. Alan Jeffries, Mr. Jeffrey Hayden, and Mr. Patrick Barnes were selected to provide a presentation on model-based engineering at GSAW 2015 to be held in Los Angeles, California next week.

The presentation, entitled “Assisting Test Development with Architecting Techniques” will be presented by Mr. Robert Morgenstern during Session 3 on Tuesday, March 3.

The presentation will describe architecting techniques and test scenarios used on the JPSS Project to model and test its operations and systems. The DoDAF 2.02 and UPDM 2.1 methods used to help clarify the interrelationships and data flows among system functions of this large and complex system of systems will be described. An overall system function hierarchy SV-4 was generated for the JPSS Project. Systems and functions in the hierarchy were then used in the SV-4 system functional flow diagrams to clarify which functions initiate data, route data, process data, and those that consume the data to more clearly identify verification test points in the systems. An extensive model was created with the use of that hierarchy to maintain coherence across all model diagrams. SV-4 diagrams are being created for all testing scenarios to be utilized by the test teams. These test scenario system views describe all data flows between systems, personnel, and external entities, as well as any requirement constraints placed on those flows. The testing teams will use the model, and these test scenario SV-4s in particular, to perform their testing procedures to ensure the JPSS ground system is performing appropriately. Mr. Morgenstern will describe the architecting techniques used to create these test scenario SV-4 diagrams including some MBSE methodology, hierarchical breakdown of OV-5b to SV-4, and where we plan to take the modeling as we move further into the JPSS lifecycle.

The presentation slides will be posted on our website after the conference is held. You will be able to find them in the Published Papers link at [www.jetsi.com](http://www.jetsi.com).

JeTSI is a woman-owned engineering consulting firm specializing in the aerospace industry. It provides diverse services in systems engineering and architecture, program management, cost analysis & estimation, software development, and custom hardware solutions.

For more information about JeTSI, visit [www.jetsi.com](http://www.jetsi.com).

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