

Presentation Abstract

Presentation Title	DOLILU rules, a reference model for verification of ascent guidance and flight control
Author(s)	Daniel Mccaugherty
Point of Contact (POC)	Phil Loftis
POC E-mail	Philip.D.Loftis@nasa.gov
POC Fax	304.367.2035
Presentation Abstract	<p>The Space Shuttle day of launch I-load update (DOLILU) system generates shuttle first stage open loop guidance parameters optimized for day of launch winds. The DOLILU QA Rules were developed to specify the properties of an acceptable shuttle ascent trajectory. These rules were implemented within the DOLILU system to automate the verification of the simulated guidance and flight control performance during the hours prior to launch and also to verify the ability of the trajectory optimization software to reliably generate acceptable trajectories. This briefing examines the QA rules and the extent to which the methods used to develop the rules could serve as a suitable technique for developing reference models for complex control systems.</p>