



Aerospace Control and Guidance Systems Committee Short Course

NASA's First Hypersonic Research Aircraft: *The X-15's Lessons for GN&C, Safety, and Systems Engineering* Instructor: Dr. Jeb Orr, Mclaurin Aerospace

Date: 24 March 2020

Time: 8:00 AM - 5:00 PM

Location: Bahia Resort Hotel
998 W. Mission Bay Dr.
San Diego, CA, 92109
(858)-539-7700



Cost *: \$275.00

- Short course fee includes class notes, continental breakfast and lunch

How to Register: www.acgsc.org for registration links

(If you have trouble registering or for any questions please email secretary@acgsc.org)

Registration Deadline: March 9, 2020

Course Synopsis:

This short course focuses on the Lessons-Learned from an in-depth retrospective analysis of the X-15 test program and fatal crash. The lessons in safety culture, guidance & control, systems engineering, programmatics and testing remain current and applicable across aerospace applications, as well as the emerging field of hypersonics.

The first segment will introduce the aircraft, mission profiles, systems and GN&C, while the second segment provides in-depth analysis with the lessons from the 1967 accident that aerospace professionals can apply to avoid pitfalls of the past in systems of the future.

Instructor Background:

Dr. Jeb S. Orr is a Principal Staff Engineer at Mclaurin Aerospace, where he performs analysis and design of flight control systems for launch vehicles and spacecraft. Dr. Orr serves as the Space Launch System (SLS) flight control Technical Specialist at NASA Marshall Space Flight Center. He holds a BSE in Computer Engineering and an MSE and PhD in Control from the University of Alabama in Huntsville. He is an instrument-rated private pilot with more than 1000 flight hours in 10 types of aircraft.

In 2014, Dr. Orr served as the technical lead for an independent assessment of the 1967 X-15 accident by the NASA Engineering and Safety Center (NESC).