



American Institute of
Aeronautics and Astronautics
Dayton-Cincinnati Section

Lunch 'n' Learn

HIFiRE-1

Hypersonic Flight Test

Guest Speaker:

Dr. Roger Kimmel

Air Force Research Laboratory

Friday 1 June 2012



The Hypersonic International Flight Research Experimentation (HIFiRE) program is a hypersonic flight test program executed by the Air Force Research Laboratory (AFRL) and the Australian Defence Science and Technology Organization (DSTO). Its purpose is to develop and validate technologies critical to next generation hypersonic aerospace systems. The primary experiment on HIFiRE flight 1 was boundary layer transition (BLT). BLT has important impacts on hypersonic vehicle aerodynamics and aerothermodynamics. It is an inherently challenging phenomenon to compute or ground test. Flight provides the ultimate benchmark for transition prediction. HIFiRE-1 successfully demonstrated affordable, high-quality hypersonic flight testing for BLT. This seminar will discuss why we need flight tests, how we acquired data on HIFiRE-1, and some of our major findings on BLT and other phenomena.

Dr. Kimmel is a Principal Engineer at the Air Force Air Vehicles Directorate, and served at the Principal Investigator for HIFiRE flight 1.

Time: 11:45 am

Location:

China Garden Buffet
112 Woodman Dr.
Dayton, OH 45431

Lunch:

*You will be able to
purchase the buffet*

