

MAE Graduate Seminar

Preparation and Preliminary Results from NASA's Hybrid Wing Body Acoustics Test

Dr. Michael Doty Assistant Branch Head for Aeroacoustics NASA Langley Research Center, Hampton, VA

Friday, April 25, 2014 ECSB 1310 11:00 am to 12:00 pm

NASA's Environmentally Responsible Aviation (ERA) Project has been investigating a Hybrid Wing Body (HWB) aircraft as a possible configuration for meeting N+2 system level goals for noise, emissions, and fuel burn. A recently completed NRA led by Boeing Research and Technology resulted in a full-scale aircraft design and wind tunnel model. This model was tested acoustically in NASA Langley's 14-by 22-Foot Subsonic Tunnel during late 2012/early 2013. The preparations leading up to this large test and preliminary results will be discussed with particular emphasis on the unique Compact Jet Engine Simulator units developed and used during the test. A general discussion of NASA Langley's Aeroacoustics Branch will precede the HWB portion of the talk.



Short Biography:

Dr. Michael Doty is a research engineer in the Aeroacoustics Branch at NASA Langley Research Center. He received a B.S. in aerospace engineering from the University of Notre Dame and an M.S. and Ph.D. from The Pennsylvania State University. Dr. Doty worked as an NRC post-doc at NASA Langley for two years before joining Rolls-Royce North American Technologies in Indianapolis, Indiana. After 5 years at Rolls-Royce, Mike rejoined NASA Langley in 2009. He was recently selected to serve a detail assignment as the Assistant Branch Head for Aeroacoustics.