



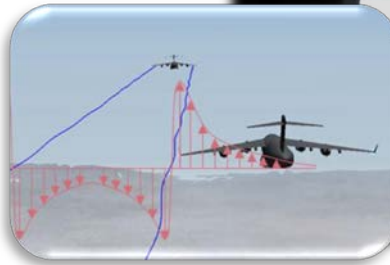
*American Institute of
Aeronautics and Astronautics
Dayton-Cincinnati Section*

**Lunch 'n' Learn
Friday 27 June 2014**

“\$urfing Aircraft Vortices for Energy”

Guest Speaker:

**William Blake
AFRL**



One of the more innovative ideas for saving fuel is to fly airplanes in bird-like formations to take advantage of the beneficial upwash from the wake of the lead aircraft. The Air Force Research Laboratory (AFRL) completed flight demonstrations of this concept in 2012 and 2013 using two C-17s. The latter demo included a round trip mission from California to Hawaii, where fuel flow reductions in excess of 10% were found. The USAF Air Mobility Command (AMC) has nicknamed this idea \$AVE (\$urfing Aircraft Vortices for Energy). This presentation will discuss the overall \$AVE concept, earlier flight test attempts, the recent C-17 tests, and future plans.

Mr. William Blake is an Aerospace Engineer in the Air Force Research Laboratory's Aerospace Systems Directorate. He has over 30 years of experience including 5 years active duty in the USAF and is currently the \$AVE Program Manager. He received a BS from Rensselaer Polytechnic Institute and an MS from the University of Dayton. He is an Associate Fellow of the AIAA, winner of the 2006 AIAA Aerodynamics Award, and was recently named the 2013 AIAA Engineer of the Year.

Time: 11:45 am

Location:
*China Garden Buffet
112 Woodman Dr.
Dayton, OH 45431*

Lunch:
*You will be able to
purchase the buffet*

