



2011 – 2012 Awards Banquet

The Central Florida Section

of the

American Institute

of Aeronautics and Astronautics

*Cordially invites you to join us in a celebration of achievement and accomplishment
for the year of 2011 – 2012.*



April 19th, 2012

at the Orlando Science Center, Founders Room at 6:00 PM.

*Dinner will be served from 6:30 pm to 7:15 pm with the presentation of awards to
commence thereafter. Dress will be business casual. Paul Bevilaqua will be presenting*

“Inventing the Joint Strike Fighter”

Entrée: Pulled Chicken or Pork

Student Members: \$10

Sides: BBQ Beans or Coleslaw

Student Non-members: \$12

Dessert: Bluberry Cobbler or

Members: \$20

Chocolate Awesomeness

Non-members: \$25

*Payment may be made at the door via cash or check. Food is paid for in advance, so
no-shows will still be charged. Please RSVP no later than April 13th, 2012. RSVPs
may be submitted to the following link: <http://www.surveymonkey.com/s/Q77L5YV>*

Paul Bevilaqua



Biography:

Dr. Paul Bevilaqua has spent much of his career developing Vertical Take Off and Landing aircraft. He joined Lockheed Martin as Chief Aeronautical Scientist of the Lockheed Advanced Aeronautics Company, and became Chief Engineer of Advanced Development Projects in the Lockheed Martin Skunk Works. During this time, he played a leading role in creating the Joint Strike Fighter Program. He invented the Lift Fan Propulsion System that made it possible to build a stealthy, supersonic VTOL aircraft, and led the engineering team that demonstrated the feasibility of building variants of this aircraft for the Air Force, Marines, and Royal Navy.

Prior to joining Lockheed Martin, he was Manager of Advanced Programs at Rockwell International's Navy aircraft plant. He began his career as a Captain in the U.S. Air Force and Deputy Director of the Energy Conversion Laboratory at Wright Patterson Air Force Base. He has a BS in Aerospace Engineering from the University of Notre Dame, and MS and PhD degrees in Aeronautics and Astronautics from Purdue University.

He is a member of the National Academy of Engineering and a Fellow of the American Institute of Aeronautics and Astronautics, and he is the recipient of a USAF Scientific Achievement Award, AIAA and SAE Aircraft Design Awards, AIAA and AHS VSTOL Awards, and Lockheed Martin AeroStar and Nova Awards.

Abstract: "Inventing the Joint Strike Fighter"

A team led by Lockheed Martin recently won the contract to develop the F-35 Joint Strike Fighter, a single airplane that will be built in three different variants. The Air Force variant is a supersonic strike fighter designed to operate from conventional runways. The Navy variant will launch and recover from aircraft carriers, while the Marine Corps variant will make vertical takeoffs and landings. The key to developing this family of aircraft is a new dual cycle propulsion system, which can be switched from a turbofan cycle to a turbo shaft cycle to increase thrust for vertical takeoff and landing. This propulsion system enabled the X-35 to become the first aircraft in history to fly at supersonic speeds, hover, and land vertically. The development team won the Collier Trophy, that recognizes "the greatest achievement in aeronautics or astronautics in America demonstrated during the preceding year," for this accomplishment. This presentation will describe the Joint Strike Fighter Competition and the development of this innovative engine, showing how a novel idea can grow into a new aircraft program.