

# Inventing the Joint Strike Fighter



## AIAA@UCSD Technical Talk

Guest Speaker:  
Dr. Paul Bevilaqua

Tuesday,  
March 4th, 2014  
5:30-7:00 PM  
CSE 1202

[aiaa.ucsd.edu](http://aiaa.ucsd.edu)

## Abstract:

The F-35 Joint Strike Fighter was developed to meet the multirole fighter requirements of the US Air Force, Navy, Marine Corps, and our allies. The Air Force variant is a supersonic, single engine stealth fighter. The Navy variant has a larger wing and more robust structure in order to operate from aircraft carriers, while the Marine Corps variant incorporates an innovative propulsion system that can be switched from a turbofan cycle to a turbo shaft cycle 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, which recognizes "the greatest achievement in aeronautics or astronautics in America" each year, for this accomplishment. This presentation will describe the technical and program challenges involved in developing the Joint Strike Fighter and show how an innovative idea became an international program with engineers from half a dozen countries developing a single replacement aircraft for multiple aircraft types.

## Event Details:

Light refreshments will be provided.  
Open to all UCSD students.