Air Force Research Laboratory|AFRL

Science and Technology for Tomorrow's Air and Space Force

Success Story

PROPULSION DIRECTORATE MANAGER CHOSEN AS *AVIATION WEEK* LAUREATE

The February 4, 2002 issue of *Aviation Week and Space Technology* announced Mr. Robert A. Mercier, of the Propulsion Directorate's Aerospace Propulsion Office, as a laureate recipient for the magazine's 45th Annual Aerospace Laurels selections.

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Accomplishment

The magazine staff chose Mr. Mercier, Deputy for Technology for the Aerospace Propulsion Office, as a 2001 Laureate in the Aeronautics/ Propulsion category. This award honors individuals and teams who made significant contributions to the global field of aerospace during 2001.

Mr. Mercier earned this recognition for his role in the successful demonstration of a hydrocarbon-fueled scramjet engine known as the Performance Test Engine (PTE). The PTE is a heavyweight, demonstrator engine developed by Pratt & Whitney for the directorate's Hypersonic Technology (HyTech) program. The HyTech Team completed the free jet testing of the PTE in January 2001.

Team members receiving the award are Mr. Robert Faulkner, Mr. Joaquin Castro, and Mr. Curtis Berger of Pratt & Whitney Space Propulsion. The magazine will present the laureate trophy at a ceremony held at the National Air and Space Museum.

Background

The HyTech program is the latest in a long series of Air Force efforts to prove the viability and utility of the supersonic combustion ramjet engine. The objective of the HyTech program is to establish a scramjet technology base with near-term applications to hypersonic cruise missiles. Once in place, the HyTech Team can expand this technology base to include propulsion systems for reusable hypersonic vehicles such as strike/reconnaissance aircraft and affordable, on-demand access to space.

Following the success of the PTE and using a building block approach, the HyTech Team will test a Ground Demonstrator Engine (GDE). The GDE has the same flowpath as the PTE but differs in materials and fuel system components.

The team plans two versions of the GDE. The first version will demonstrate fuel cooling of the engine, which is made of flight-like engine materials, while the second version includes a flight-weight fuel system and a closed-loop engine controller.

Propulsion
Awards and Recognition

Additional information

To receive more information about this or other activities in the Air Force Research Laboratory, contact TECH CONNECT, AFRL/XPTC, (800) 203-6451 and you will be directed to the appropriate laboratory expert. (02-PR-05)