

# Polytechnic University Inaugurates New Aerospace Lab With First Full Motion Flight Simulator In Puerto Rico <sup>[1]</sup>

Submitted on 8 February 2013 - 2:20pm

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## Original Source:

Universidad Politécnica de Puerto Rico

## By:



**San Juan, Puerto Rico, February 7, 2013** – The **Polytechnic University of Puerto Rico (PUPR)** School of Engineering and Geomatic Sciences inaugurated today its new Aerospace Laboratory located at its Hato Rey campus. This new lab includes a wind tunnel, a helicopter turbine, a nozzle station, a vibration-measuring station, as well as the first **MOTUS 622i Flight Simulator** in Puerto Rico, the only one in its class with full motion capability, valued in over \$250,000.

The **MOTUS 622i** is the most sophisticated equipment on the Island, with 6 degrees of freedom of movement, for a more realistic and faithful flight recreation and dynamic simulation. This advanced aviation training device (Advanced ATD) is approved by the Federal Aviation Administration (FAA) and allows students to research existing aircrafts in the market and develop new designs. It also allows students and researchers to evaluate a myriad of elements in these aircrafts, including panel, fuselage, weight, balance, engine, and flight dynamics.

The inaugural acts took place in the premises of the **PUPR** Hato Rey campus, which were attended by Astronaut Joseph M. Acaba, Doctor Honoris Causa of the **PUPR**, as well as leading figures from the aerospace industry in Puerto Rico.

*“For over 46 years, our institution has opened the doors of knowledge to thousands of students with an important mission in mind: the development of professionals and leaders who will forge a dynamic and innovative progress for Puerto Rico and the world,”* said Ernesto Vazquez Barquet, **PUPR** president. *“With this mission as our north, we continue to develop our educational tools and technologies through the launch of our new Aerospace Laboratory.”*

The new Aerospace Laboratory is part of the research and practice areas of the Bachelor of Science in Mechanical Engineering with a major in Aerospace Engineering Program offered by the Department of Mechanical Engineering of the School of Engineering and Geomatic Sciences. The lab was developed as part of the initiatives of the **PUPR** Title V Office. The Laboratory is under the direction of Dr. Carlos Alvarado Diaz and Prof. Rafael Jimenez Velez, both professors of said department. The equipment will complement the courses in mechanical engineering and aerospace engineering, such as aerospace structures, mechanical and aerospace systems and controls, high speed aerodynamics, stability and vibration of systems, composite materials, computational fluid dynamics, and turbo machine theory, as well as offering flight hours for pilot certification.

*“The MOTUS 622i Flight Simulator will allow our students to enter the simulator cabin and experience, first hand, the viability of their designs in the most realistic simulated flight training environments in the market,”* noted Dr. Alvarado. *“Similarly, all students interested in developing skills as a pilot can rely on this tool for registered flying experience. The MOTUS 622i allows us to offer 2.5 hours of flight experience for private pilot certificates, 50 hours of flight experience for commercial pilot certificates, and 25 hours of flight experience for airline transport pilot certificates.”*

For more information on the Aerospace Laboratory, the **MOTUS 622i** Flight Simulator, or any other labs and tools of the School of Engineering and Geomatic Sciences Department of Mechanical Engineering at the University of Puerto Rico, call 787-622-8000 ext. 323 or visit the website <http://www.pupr.edu/departament/mechanical/> [2].

*The Polytechnic University of Puerto Rico (PUPR) was founded in 1966 as a private nonprofit education institution specialized in Engineering and Geomatic Sciences, Architecture, Landscape Architecture, and Business Administration. With an annual enrollment of over 5,000 students, the PUPR is the largest private institution in the United States specialized in Engineering and related technical fields for Hispanics. Since its beginnings, the PUPR has specialized in Engineering and Surveying degrees. The main campus of the institution is located in Hato Rey, in the heart of San Juan. In the years 2001 and 2002, The Polytechnic University opened new campuses in the*

*cities of Miami and Orlando, respectively. Eight of the nine PUPR School of Engineering and Geomatic Sciences programs are accredited by the Accreditation Board for Engineering and Technology (ABET)\*, the recognized independent institution for the accreditation of universities and colleges specialized in Sciences, Computers, Engineering and Technology. The School of Management of the PUPR is the only one in Puerto Rico accredited by the International Assembly for Collegiate Business Education (IACBE) and the Architecture School count with the accreditation of the National Architectural Accrediting Board (NAAB). The specialized accrediting body of the Landscape Architectural Accreditation Board (LAAB) recently accredited the School of Landscape Architecture. The PUPR was also recently designated National Center of Academic Excellence in Education of Information Security (CAE/IAE) for the years 2009-14, by the National Security Agency (NSA) and the Department of Homeland Security (DHS), reflecting by this way the quality of security in information education of the UPPR.*

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