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UNH Space Science Center To Dedicate New Small Satellite Test Facility Oct. 9

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REPORTERS AND EDITORS: The dedication ceremony for the new laboratory will take place Thursday, Oct. 9, 2008, at 11 a.m. in the Morse Hall atrium on the UNH Durham campus. A brief presentation on UNH’s long and varied history in satellite missions will follow.

DURHAM, N.H. – On Thursday, Oct. 9, 2008, the University of New Hampshire’s Space Science Center (SSC) will officially open its Space Science Small Satellite Test Laboratory – a new, state-of-the-art facility that will allow quicker, more economical turnaround in testing satellite components built at the SSC.

The new laboratory will provide UNH space scientists, students, and industrial partners with onsite thermal vacuum testing and clean-room assembly of small satellite payloads. Thursday’s events, which start at 11 a.m. in the Morse Hall atrium, will include an opening ceremony and presentations on the details of the new lab and the Space Science Center's rich history in satellite missions going back to the dawn of the space age.

“This laboratory allows UNH to build on our experience in space hardware technology and fabrication and to remain a key player in developing technologies for design and instrumentation of small space-borne payloads,” says SSC scientist Roy Torbert. “The lab also opens the way for greater collaboration between UNH and industrial partners such as BAE Systems and others.”

For the opening, UNH officials will be joined by representatives from the Sensor Systems Line of Business of BAE Systems, Nashua, which works in partnership with UNH and will use the laboratory for testing instrumentation. Among other joint ventures, BAE funds a Space Systems Fellowship program for UNH students. The new lab, which contains a thermal-vacuum chamber in which satellite components can be tested in space-like conditions, will provide a valuable educational tool for students.

Torbert is the principal investigator for UNH’s role in NASA’s Magnetospheric Multiscale Mission (MMS) – a complex, four-satellite mission set to launch in 2014 to study phenomena in Earth’s magnetosphere. As part of an international team dedicated to the mission, UNH has been awarded $61 million from NASA to help build two instruments for each of the four spacecraft. In addition, UNH will construct the central electronic controls for all the instruments being built to measure the spectrum of electromagnetic fields around the spacecraft. This "FIELDS" instrument suite will be comprised of six sensors per spacecraft and will be centrally managed by UNH.
The Space Science Small Satellite Test Laboratory will play a crucial role in testing components for MMS, other satellite missions UNH scientists are currently working on – including the GOES-R weather satellite and the Radiation Belt Storm Probe satellites, and future missions.

UNH has a history of building instruments for satellite missions going back decades. UNH-built components have flown on more than 20 missions to date, the most recent being the twin STEREO satellites launched by NASA in 2006 to study the Sun. UNH scientists, engineers, and students also designed and built instruments for the Interstellar Boundary Explorer (IBEX) satellite that is slated for launch Oct. 19, 2008. An historical tour of UNH’s contributions to space missions will be part of the new lab dedication.

Funding for the thermal-vacuum chamber was provided by a Research Infrastructure Improvement grant from the National Science Foundation’s EPSCoR program. Since New Hampshire became an EPSCoR (Experimental Program to Stimulate Competitive Research) state in 2004, more than $14.2 million in grants have been awarded from NSF, NASA, DOD and DOE.

For more on the Space Science Center and current satellite missions, visit http://www.eos.unh.edu/resctr/ssc.shtml. For information on BAE Space Systems, visit www.baesystems.com/sse.