

**SPACE SHUTTLE EXPERIMENT OPPORTUNITY –
TIME CRITICAL**

Reservations are now being taken for cell biology and protein crystal growth experiments, among others, on the first **Commercial Reusable Experiments for Science & Technology (CREST-1)** mission, scheduled to fly aboard the historic last scheduled **Space Shuttle flight STS-134, launching 26 February 2011**. This is a time-critical opportunity; early reservation pricing is being maintained only until August 2nd.

American Aerospace Advisors, Inc. (American Aerospace) has developed the CREST program (www.american-aerospace.net/crest1.html) to provide academic, government and industrial research communities with routine, low cost access to the space environment for experimentation and commercial development.

The CREST-1 mission provides investigators with several flight-proven, miniature laboratories that are capable of simultaneously accommodating up to 120 separate investigations. By dividing the cost of the mission across numerous experiments, meaningful scientific research can be performed at exceptionally low prices. This on-orbit research opportunity is provided by American Aerospace through NanoRacks LLC (www.nanoracksllc.com), which has signed a **Space Act Agreement** with NASA to develop utilization of the International Space Station as a National Laboratory.

CREST-1 utilizes the flight-proven **Materials Dispersion Apparatus (MDA)** from Instrumentation Technology Associates, Inc., which was successfully flown on six prior Space Shuttle missions. The MDA has been used for applications such as protein crystal growth, cell biology, zeolite crystal growth, collagen assembly, fluid sciences, thin film membrane casting, micro-encapsulation of drugs, industrial processes, and other applications.

Another device included on the mission is the **Liquids Mixing Apparatus (LMA)**, which provides a 2nd proven platform for microgravity research, having flown successfully on five prior shuttle missions. By accommodating up to 16 separate experiments in each of several LMA units being launched, the LMA significantly reduces the cost to each participant.

CREST-1 also provides for late loading of samples, launch, sample return and early retrieval from our laboratory near Kennedy Space Center.

Apart from offering experimental slots to industry researchers, American Aerospace is interested in maximizing participation by university and Grade 5-12 students through two education-oriented programs.

The **Student Spaceflight Experiments Program (SSEP)** is a new U.S. national STEM initiative for grades 5-12, developed in cooperation with the National Center for Earth and Space Science Education, designed to inspire the next generation of spaceflight engineers and space scientists. More information can be found on the program's website: ssep.ncesse.org/.

The **CREST-1 University Student Spaceflight Program (CUSSP)** is aimed at fostering participation of university student teams, assisted by a faculty advisor. More information can be found in the CUSSP announcement: [CREST-1 CUSSP program.pdf](#).

Act now to participate in this historic opportunity to be part of the last Space Shuttle flight. For more information, including pricing, or to reserve your experiment opportunity, please contact Alex Howerton before August 2nd :

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