



FACT SHEET

NASA AMES RESEARCH CENTER UNIVERSITY AFFILIATED RESEARCH CENTER (UARC)

September 22, 2003

Background

Over the last five years, Ames has experienced a transformation from a broad, discipline-specific research base to a tightly-coupled, multidisciplinary research base in information technology, biotechnology, nanotechnology, computer science, aerospace operations, astrobiology and fundamental biology directed towards NASA's missions. The grand challenge of NASA's mission to explore space and study the origin and role of life in the universe is driving the Agency's focus on the technology triad of information technology, biotechnology and nanotechnology.



Ames Research Center's primary goal - to increase the science output, safety and effectiveness of NASA's missions through the infusion of new technologies and scientific techniques in an effective and efficient manner - includes the recruitment of a critical mass of top-tier researchers, the creation of an "excellence-driven" research environment, and the establishment of collaborations with organizations that are the "best" in their fields.

University Affiliated Research Center Contract Award

On September 16th, NASA Ames Research Center took a bold step towards this goal in awarding a ten-year task order contract valued at more than \$330 million to the University of California (UC) system to establish and operate a University Affiliated Research Center (UARC). The University of California, Santa Cruz will manage the UARC contract.

The UARC moves NASA and university collaborations in a whole new direction. Typically, universities focus on fundamental research. The UARC breaks down traditional institutional barriers to collaborate on mission-driven research that is on NASA's critical path.

The new UARC will provide Ames Research Center with additional research capabilities to fulfill NASA's mission requirements. The UARC's educational mission will enable students and university researchers to work side-by-side with Ames researchers on mission critical problems to benefit the Agency and the nation. Overall, the UARC will provide long-term continuity of top-tier research talent focused on NASA's growing multidisciplinary mission needs.

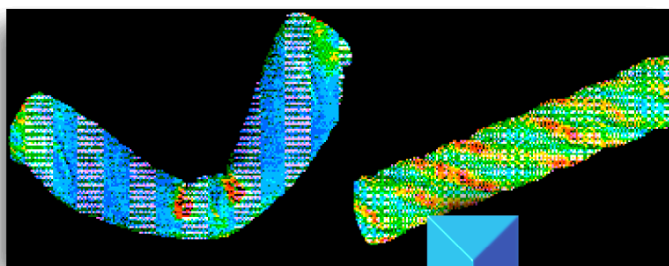


The award of the UARC contract culminates over two years of intensive efforts at NASA Ames. From bold concept to award, the UARC development process embraced new ways of doing business. Eighteen months ago, an eight-month public comment period began when a thirty-five page Draft Acquisition Plan was posted on the web. Over one hundred and fifty formal and informal questions and comments were received from a broad spectrum of industry, academia, and Government organizations including NASA Ames employees. Responses were posted on the web and improvements in the Government's approach were made. The RFP with a fourteen page Statement of Work was posted initiating a year long, competitive, procurement process culminating in this first-of-its-kind award for NASA.

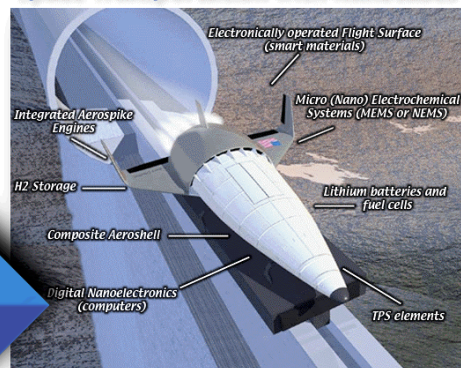
The UARC coupled with the Ames civil servant core will provide the agility and the long-term continuity essential to NASA's pursuit of emerging technologies. The close collaboration with one of the nation's largest university systems will enable the UARC to offer career opportunities to attract and retain the best researchers focused on NASA's multidisciplinary mission needs. The UARC contract will substantially expand university participation from fundamental research under grants and cooperative agreements to mission-driven research under task order contracts.

UARC Missions

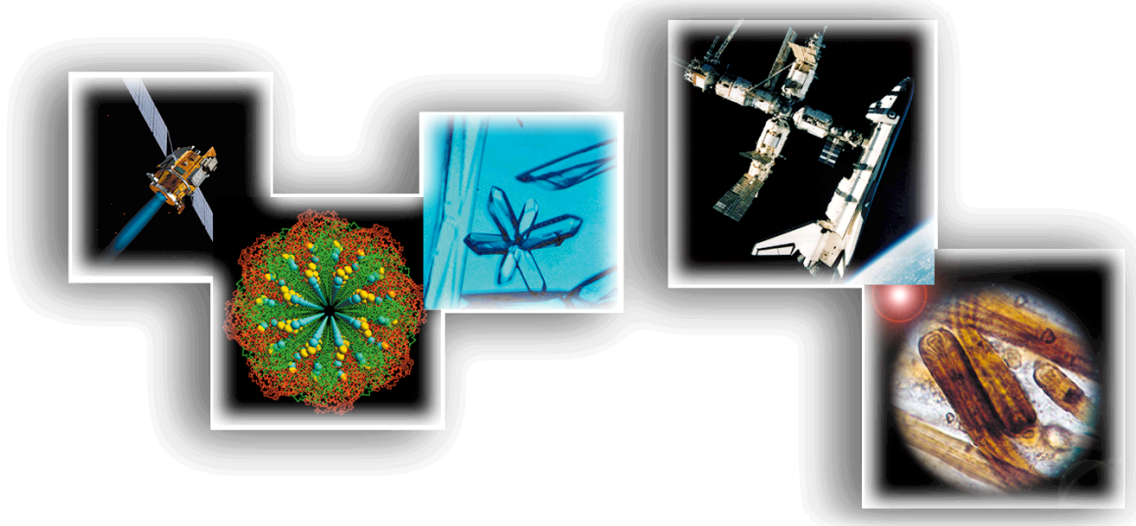
The UARC's mission will be to perform, in direct collaboration with Ames Research Center, strategic multi-disciplinary, integrative research and science that supports NASA's long-term mission requirements. Additionally, it will provide for educational interaction between university faculty, students and Ames researchers to develop future human resources in technology and science through a "Teaching Systems Institute." The UARC's program activities will extend from fundamental investigations through development and field-testing of prototype systems demonstrating new science and technological advances.



Faster, Better, Cheaper Space Transportation with Nanotubes



Fundamental Space Biology, and Computer Science. The UARC will have capabilities in the areas of Artificial Intelligence/Autonomous Reasoning, Human Factors/ Human-Centered Computing, Knowledge Engineering, Evolvable Hardware and Software, Biomolecular Technologies and Science, Nano-electronics and Computing, Exobiology, Astrophysics, Planetary Protections Science, Biology, Genomics, Proteomics, Cellomics, Operations Automation, System Simulation and Modeling, and the Engineering of Complex Systems. It is expected that many more new discoveries critical to NASA's mission will emerge from the innovative integration among these disciplines.



The "Systems Teaching Institute" will address the gaps between academic courses and complex applications. The gaps principally occur in three areas; (1) between academic courses and complex applications; (2) between faculty and practitioners; and (3) between reductionist and holistic approaches. These gaps are a particular problem in rapidly moving interdisciplinary fields like Info-Bio-Nano, which are of importance to NASA. The Systems Teaching Institute will be a pilot for global change in science and engineering education.

The UARC will benefit from the NASA Research Park (NRP). The UARC and the NRP are independent initiatives. The Park is intended to provide a world-class, shared use research and development campus in association with Government entities, academia, industry, and non-profits to enhance NASA's research leadership and educational outreach goals.

Future additional information will be available at the NASA Ames Research Center website.

