

Utah astronomy. Physicists at the University of Utah hope that a new 32-inch telescope helps kick-start the introduction of an astronomy major and advanced astronomy degrees in their department, and that it becomes the basis for a high-altitude observatory in southern Utah.

The Willard L. Eccles Charitable Foundation, based in Salt Lake City, has given the University of Utah \$600 000 for an optical robotic telescope, which will be used for research on variable objects and for public outreach. A search for a site has begun, and the telescope is supposed to be up and running in 2008.

State-owned land in southern Utah has already undergone required environmental studies and building the observatory there would not face opposition from environmentalists or Native Americans, as has become commonplace in other parts of the country, says Utah physicist David Kieda. "The nice thing about Utah is that we have high, dry sites—up to 12 000 feet." A good site, he adds, could attract optical, IR, and gamma-ray telescopes and cosmic-ray detectors.

The university will offer a minor in astronomy starting this fall, and physics faculty members are lobbying to hire observational astronomers. **TF**

NASA makes a statement. When he added the phrase "to understand and protect our home planet" to NASA's mission statement in 2002, then-NASA Administrator Sean O'Keefe said, "We have come to understand that the only way to really comprehend our climate and to protect the scarce resources of our little blue planet is to look at the Earth as a single, whole system." O'Keefe left NASA in 2004, and now the phrase "to understand and protect our home planet" is gone as well.

In February 2006, NASA rewrote the mission statement without consulting with its scientists, *New York Times* writer Andrew Revkin reported. The new mission statement, included in the space agency's fiscal year 2007 budget proposal, says, "To pioneer the future in space exploration, scientific discovery, and aeronautics research."

A NASA spokesman said the change reflected President Bush's focus on returning humans to the Moon and eventually to Mars. The lack of internal discussions about changing the mission statement reflected the management style of NASA's current administrator, Michael Griffin, the spokesman said. **JLD**

Hays gets OSTP nod. Biochemist Sharon Hays, a Capitol Hill veteran who is currently the chief of staff at the Office of Sci-

ence and Technology Policy, was nominated by President Bush in late July to become OSTP's associate director of science. Before moving to OSTP in 2002, Hays was the staff director of the House Committee on Science's subcommittee on research, and she worked in the office of Representative Vernon Ehlers (R-MI) as an American Association for the Advancement of Science congressional fellow.

After she is confirmed by the Senate, Hays will fill a post that has been vacant since Kathie Olsen left OSTP a year ago to become deputy director of NSF. Hays received her PhD in biochemistry from Stanford University in 1997. **JLD**

AMO physics needs funding. In its second report in recent months dealing with the future of physics, the National Research Council said that while atomic, molecular, and optical (AMO) science is thriving in the US, it faces six scientific "grand challenges" that require "reinforced" federal funding. "Although the [US] has led much of this research and development so far, the new questions in the field are more daunting than ever," said Robert Eisenstein, co-chair of the NRC's Committee on AMO 2010, which wrote the report, entitled *Controlling the Quantum World*. "We will

not be able to maintain world leadership without a strong commitment to basic research in this area." Stanford University physicist Philip Bucksbaum is the other co-chair.

The six challenges that need support, the report says, are new methods to measure the nature of space and time with high precision, the new field of coherent quantum gases, the development of new x-ray free-electron lasers and other high-intensity and short-wavelength sources, ultrafast quantum control, atom-by-atom control of quantum structures, and new approaches to quantum computing and communication.

The opportunities presented by these challenges, according to the report, are based on the "rapid and astounding" developments in federally funded AMO research.

The AMO report, released in July, comes on the heels of an NRC report on the outlook for elementary-particle physics (see *PHYSICS TODAY*, June 2006, page 26). That report noted that US leadership in particle-physics research is "not secure" and called for the federal government to "do what is necessary to mount a compelling bid to build the proposed International Linear Collider on U.S. soil." **JLD ■**

web watch

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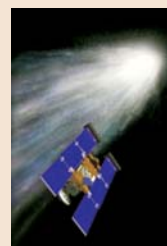
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By 1791, Farkas Kempelen had perfected one of the most remarkable instruments of the 18th century: a mechanical device for reproducing the sounds of human speech. More than two centuries later, Gábor Olaszky and Péter Nikléczy followed Kempelen's design and replicated his device. To learn more about the project, watch **In memoriam Kempelen Farkas**, a flash animation created by Olaszky's graduate student Tamás Bohm.

<http://planetary.org/programs/projects/stardustathome/>

Before it returned to Earth in January, NASA's *Stardust* spacecraft trawled interplanetary space for tiny dust grains. The modest catch is stuck invisibly to the wispy filaments of the detector medium, an aerogel. For the first step in gathering the grains, scientists at Berkeley's Space Sciences Lab have filmed the aerogel with micron resolution. The second step involves the computer-owning public. Visit **Stardust@home** to download a screensaver that sifts through the 700 000 or so movie clips one by one to locate the precious cargo.



<http://www.npl.uiuc.edu/~a-nathan/pob>

On his website **The Physics of Baseball**, Alan Nathan has collected more than 30 articles and audio and video clips concerning the science of America's venerable sport. Among the items in Nathan's compilation is Hit Tracker, which calculates how far from home plate a home run would have landed if it could reach the ground unimpeded.