

## Ecologists count cost as wildfire ravages research station

**San Diego** A climate and ecosystem research facility in southern California has been torched by a wildfire raging through mountains north of San Diego. The Sky Oaks Field Station, in an area of chaparral shrubs, lost equipment and samples worth about \$1 million on 17 July, according to early estimates.

Research teams from San Diego State University (SDSU) and California State University, Los Angeles (CSULA) had been using robotic devices for seven years to test atmospheric gases in relation to plant respiration and photosynthesis at the site.

SDSU's Global Change Research Group, led by ecological physiologist Walter Oechel, will see how much research can be salvaged. Plant physiologist John Gamon of CSULA's Center for Environmental Analysis says that tramways used to move the robots across the site were wiped out. But he now hopes to add a study of the fire's impact on the chaparral ecosystem to his group's project.

## Court rules against NASA over Hawaiian telescope

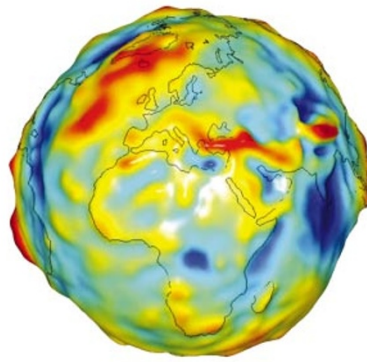
**Washington** More than a year after a Hawaiian state agency sued to stop construction of NASA telescopes on the traditionally sacred Hawaiian mountain of Mauna Kea, NASA has received the decision it was dreading. The US District Court in Hawaii ordered NASA on 15 July to prepare a full environmental-impact study before building new 'outrigger' telescopes for the Keck Observatory.

The proposed group of four to six small telescopes would improve Keck's ability to see fine detail, which NASA would use in the search for planets around other stars.

Spokesman Don Savage says that the agency is still evaluating its options. NASA may even scrap the project, which has been delayed by wrangling between astronomers and Hawaiian natives (see *Nature* 417, 5; 2002). An environmental-impact study is expected to take months and to add greatly to the \$20 million that NASA has already spent developing hardware for the outriggers.

## Gravity map gets to grips with planet's pull

**Washington** The most accurate map yet of Earth's gravitational field has been released — the first result of the Gravity Recovery and Climate Experiment (GRACE), run jointly by NASA and the DLR, Germany's aerospace research centre. Oceanographers hope to use the map to model deep oceanic currents and heat fluxes, and so better



Use the force: the raised, red areas in GRACE's gravity map show where Earth's pull is strongest.

understand their effects on global climate.

"It's an order of magnitude better than anything that's gone before," says Byron Tapley, the project's principal investigator and director of the Center for Space Research (CSR) at the University of Texas at Austin. The map, called GRACE Gravity Model 01, was based on a preliminary analysis of 111 days of mission data. It was published on the CSR website on 21 July, a few months ahead of the main phase of the mission.

The GRACE mission comprises two identical satellites, one 220 kilometres ahead of the other. The lead satellite encounters local variations in the gravity field first, and so temporarily pulls away from its partner (see *Nature* 416, 10–11; 2002). The map was created by following these minute changes in separation, which are measured to the nearest micrometre by onboard sensors.

## Row over junk DNA patents comes home to Australia

**Sydney** Genetic Technologies (GTG), the Melbourne-based biotech company that has patents on the use of non-coding DNA, has granted a research licence to the University of Sydney. This is the second of its academic licences, and the first on its home turf.

The company has drawn criticism for requiring academics to buy licences for the use of 'junk DNA' sequences in genetic

analyses (see *Nature* 423, 105; 2003). Francis Collins, who heads the National Human Genome Research Institute in Bethesda, Maryland, spoke out against GTG's policy at the International Congress of Genetics in Melbourne last month.

GTG charged US\$1,000 each for the two licences sold so far. "Our intention is simply to regularize researchers' activities so they are no longer infringing our patent," says Mervyn Jacobson, chairman of GTG. "We separate research licences for academics from commercial licences for organizations selling products in the marketplace — we are not planning to profit off academic researchers."

The University of Utah in Salt Lake City was the first to buy a research licence, in May. Other institutions are also seeking licences, says Jacobson.

## Mammal experts get networking opportunity

**San Diego** Data on 1.4 million specimens from mammal collections throughout the United States, Canada and Mexico are to be linked by a new computer network.

The Mammal Networked Information System will allow researchers to retrieve data remotely from any of the 17 participating institutions. The system should help users to monitor ecosystems, identify invasive species and track diseases that move from mammals to humans. Researchers studying a 1993 hantavirus outbreak in the US southwest, for example, used samples from mammal collections in the region to trace the strain to the deer mouse, a common North American rodent.

The project is led by the Museum of Vertebrate Zoology at the University of California, Berkeley, aided by a \$1.4-million grant from the National Science Foundation. Eleven of the mammal collections are now online, with the remainder to be included by early next year.

♦ <http://elib.cs.berkeley.edu/manis>

## Endangered footage finds an online ark

**London** Recorded images and sounds of endangered species are often as threatened as the animals and plants themselves. Wildlife films, for example, are often lost when production houses close or technology changes.

But a major digital storage project called ARKive is now giving such records a permanent and safe home. ARKive aims to accumulate records on all 11,000 species listed by the World Conservation Union as at risk of extinction, and make them available online.

The project, based in Bristol, UK, is funded by Britain's Heritage Lottery Fund and by Hewlett-Packard Research Laboratories Europe.

Highlights already stored in ARKive include the



only film of the extinct Tasmanian tiger (pictured), and images of the coelacanth, a fish that has roamed the seas since the days of the dinosaurs.

♦ [www.arkive.org](http://www.arkive.org)