

Weapons task force sets sights on single US lab

The United States should consolidate its nuclear-weapons production facilities at a single centralized location, according to a Department of Energy panel. But all the nation's nuclear-weapons labs appear safe for the time being, as department officials are only now beginning to study the recommendations.

A six-member panel led by physicist David Overskei, president of a San Diego company called Decision Factors, released its report last week in draft form. It calls for all nuclear-weapons materials to be located at one site, where production, manufacturing, assembly and disassembly of weapons would all take place. There is no suggestion in the report of where that single facility should be located. Those jobs are currently scattered among several laboratories.

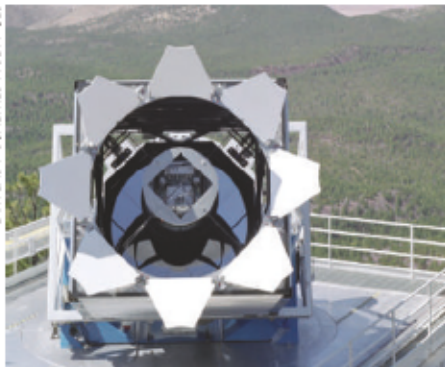
Any plan to move tasks away from existing labs would face an uphill battle in Washington, where congressional representatives from states such as California and New Mexico already fight each other for scarce energy funding.

Sky survey looks to starry future after cash boost

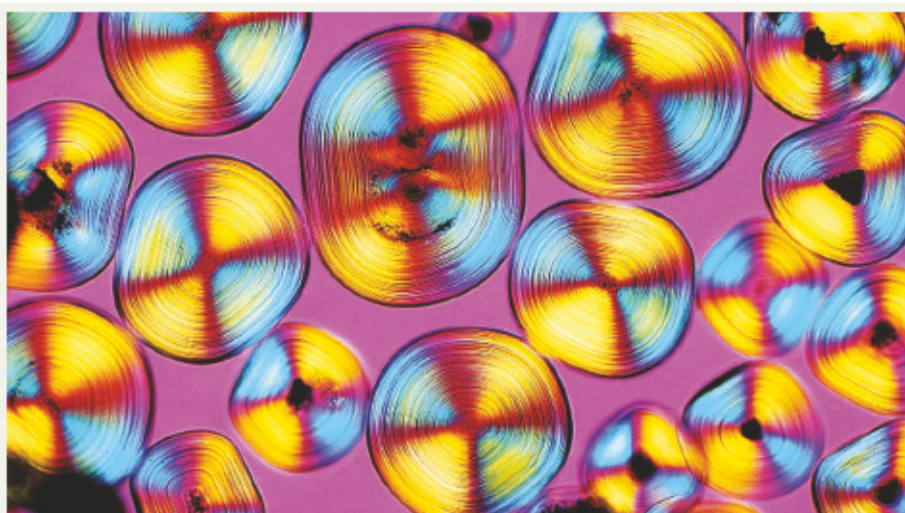
An astronomical project to map millions of celestial objects has received fresh funding to extend its mission for another three years.

The Sloan Digital Sky Survey (SDSS) surveys the night sky using a telescope at Apache Point Observatory in New Mexico. It has already given astronomers new insights into the three-dimensional structure and early make-up of the Universe.

A consortium of funding agencies in the United States, Japan and Germany has now awarded the project \$14.9 million over three years. The money will be used for the second phase of the project, SDSS-II, to study the structure and origins of the Milky Way, and the nature of dark energy.



Looking up: the Sloan Digital Sky Survey will now focus on the structure of the Milky Way.



Kidney stones add colour to scientist's image

A psychedelic beauty belies the pain that can be caused by these objects — common kidney stones, as seen through a microscope.

The concentric rings are layers of calcium oxalate that crystallized one after another, causing the stones to grow. The image is one

of several being exhibited at the 2005 Biomedical Image Awards at the Wellcome Trust in London.

The stones shown here are 0.2 to 0.35 micrometres across, and are thought to come from an animal, not a human.

Japanese law tackles welfare of lab animals

Japan's parliament has updated a law that aims to strengthen the protection of laboratory animals.

The current animal-welfare law, which dates from 1973, requires that researchers try to alleviate the suffering of animals — but it doesn't mention reducing the number of animal experiments or using alternatives where possible. The updated version includes all three key ethical principles, which are widely endorsed by the international community.

Many see the revisions, which are expected to come into effect by June 2006, as a step forward in clarifying Japan's position on animal research. But animal-rights activists point out that researchers will not be required to include the two new principles, only to consider including them.

The Japanese government also plans to set guidelines on how to conduct animal tests. Researchers are creating a third-party accreditation system of labs by monitoring each other's work or asking a US organization to oversee the tests.

China gears up to relaunch human space flight

Since Yang Liwei's historic trip to space in 2003, no Chinese astronaut has orbited the Earth. But that could be about to change, with the scheduled launch of a second mission this autumn.

The Shenzhou VI spacecraft will carry two astronauts into space in early October for five or six days, government officials told the *China Daily* newspaper last week. The astronauts will be chosen from a group of fighter pilots.

China has also spoken of launching at least two meteorological satellites before the 2008 Olympics in Beijing, to provide better weather forecasts for the event.

Europe names advisory board for research council

Some months before the proposed European Research Council (ERC) is given the expected official go-ahead, the European Commission has released the names of 22 high-level scientists, from 17 different countries, who will help to shape it.

Appointees to the newly formed Scientific Council include gene therapist Claudio Bordignon of the San Raffaele Institute in Milan, Italy; atmospheric chemist Paul Crutzen of the Netherlands, joint winner of the 1995 Nobel Prize in chemistry; Fotis Kafatos, former director of the European Molecular Biology Laboratory in Heidelberg, Germany; astrophysicist Maria Teresa Lago of the University of Porto, Portugal; and zoologist Robert May, president of the Royal Society in London.

The group is meant to serve as an independent advisory board to the ERC. If all goes as planned, the research council will serve as the first European-wide granting agency for basic research, beginning operations in 2007.