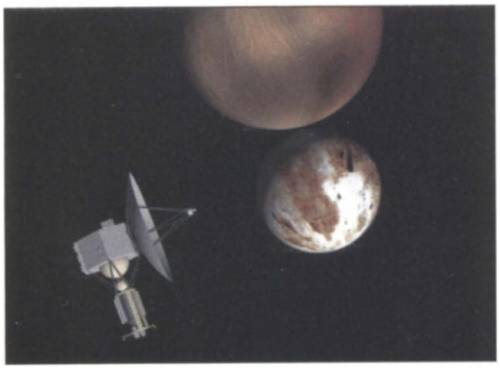

**Back from the dead.** A NASA mission to Pluto, shown arriving in 2015, got a boost last week from Congress.

Space Telescope, and chides the agency for backing away from materials science research on the space station.

The Pluto mission has been unpopular with both the Clinton and Bush administrations, which would prefer that NASA work on advanced propulsion systems that might eventually provide a faster trip to Pluto and the Kuiper belt. But Senator Barbara Mikulski (D–MD) has fought hard to restore funding, and last week the House panel matched the $105 million approved for Pluto by a Senate panel in late July (*Science*, 2 August, p. 755) for the 2003 fiscal year that began on 1 October. There's another $15 million for it as part of a new series of low-cost missions, leaving the project just $2 million shy of the amount supporters say is needed to keep it on track for a 2006 launch. Although Congress has fallen far behind in passing spending bills for the new year, the similar funding levels in both houses for the Pluto mission virtually ensures its continuation.

A 2006 launch would deliver the spacecraft to Pluto by 2015 and to the Kuiper belt by 2026. The date was picked to stay ahead of a projected freezing of the planet's thin atmosphere as it moves away from the sun, although last week astronomers reported new data suggesting that Pluto's atmosphere in fact might be warming rather than cooling. Administration officials say privately that a 2006 launch might be impossible because the spacecraft's nuclear-electric power system requires a complex approval process and a new launch vehicle might not be ready. But project manager Tom Coughlin of the Johns Hopkins University Applied Physics Laboratory in Laurel, Maryland, insists that neither problem is a showstopper.

The House panel also provided a $20 million boost to NASA's Mars exploration program to cover rising costs in planned robotic and orbiter missions. It also urged NASA to ignore the advice of a recent controversial report that ranked some materials science as a low priority aboard the space station. At the same time, lawmakers decided that equipment shortages on the orbiting base preclude a proposed $11 million biology project called Generations.

As for the Hubble, the committee told NASA to study an extension beyond 2010, when the instrument was scheduled to return to Earth aboard the space shuttle. Committee members fear that delays in launching the newly named James Webb Space Telescope could leave astronomers with a viewing gap. The new scheme would require an additional Hubble servicing mission in 2007.

–ANDREW LAWLER

BIOLOGICAL AND CHEMICAL WARFARE

## Secret Weapons Tests' Details Revealed

Documents released last week by the Pentagon about secret biological and chemical weapons tests have fueled the anger of veterans who say they were used as unwitting guinea pigs. But biological and chemical arms experts say that there are no major revelations in the documents—although they do illustrate the vast scope of the U.S. chemical and biological warfare program at the height of the Cold War.

The information was released as the Pentagon tries to document a series of 134 chemical and biological warfare studies that were planned in the 1960s. The tests came to light as the result of pressure from worried veterans—some of whom blame health problems on exposure to test agents—and members of Congress. Many of the trials were never carried out, but at least 46 trials took place, acknowledged William Winkenwerder, assistant secretary of defense for health affairs, last week at a press briefing. The newly released material pertains to 27 of them. The Department of Defense intends to produce and post online detailed fact sheets about all of the tests by next spring (deploymentlink.osd.mil).


**Guinea pigs aboard.** The U.S.S. *Power* was sprayed in 1965 with stand-ins for biowarfare agents.

CREDITS: (TOP TO BOTTOM) GSFC/NASA; NAVSOURCE ARCHIVES

## ScienceScope

**Budget-Delay Jitters** Supporters of the National Institutes of Health (NIH) are worried that new programs could be crippled if legislators don't pass the agency's 2003 budget soon.

Congress did not complete most appropriations bills before the fiscal year ended 30 September, instead approving a series of temporary resolutions to fund agencies at 2002 levels. NIH can stay on track if its budget—slated to complete a 5-year doubling to $27.2 billion—is adopted by mid-December, NIH Director Elias Zerhouni told a House appropriations panel last week. But further delay would force NIH to scale back grants, put off construction projects, and "greatly interfere with" $1.7 billion in new bioterrorism research and vaccine development, Zerhouni said. A delay until March—one worst case scenario—could shrink the number of new grants from about 9850 to 6800, according to some research advocates.

**Academic Fusion** Two of Britain's top universities have announced their engagement. Imperial College London and University College London (UCL) plan to merge into a single university, officials said this week.

Joining forces is the only way to compete in the knowledge economy, says Richard Sykes, the rector of Imperial, who is acting as marriage broker. Before coming to Imperial last year, Sykes was chief executive of Glaxo Wellcome, masterminding the 2000 megamerger of GlaxoSmithKline, now the world's largest pharmaceutical company (*Science*, 16 November 2001, p. 1443). The name of the new university has yet to be decided, and the British Parliament must approve the fusion, "but we'll start sharing resources by December," says Sykes.

Derek Roberts, provost of UCL, says the two institutions complement one another. For example, the 176-year-old UCL has a law school but no business school, whereas the 95-year-old Imperial trains executives but not lawyers. First up is a joint fundraising campaign to boost their combined $12 million endowment.

**Schön Papers Pulled** Jan Hendrik Schön, the Bell Labs physicist tagged for faking data (*Science*, 4 October, p. 30), and his coauthors earlier this week agreed to retract 16 papers faulted by an inquiry. European officials, meanwhile, have launched two new inquiries. Officials at the University of Konstanz are reexamining Schön's doctoral work. And the DFG, Germany's primary science funding agency, is studying whether grant money given to Schön while at Bell Labs was used to promote fraudulent data. Schön could not be reached for comment.

tery," says Booske. Jerby adds another low-tech application of his silent drill: concrete construction. "If you have ever had a neighbor drill into a concrete wall next to your apartment at midnight, you know what I mean," he says.

But don't expect to see the microwave drill during your next dental checkup. Although the lab model emits less radiation than a typical home microwave oven, Jerby says, "safety is still a big concern." To keep stray microwaves from cooking the internal organs of an unwary drill operator, production models of the microwave drill either will be completely enclosed, like an oven, or will use a shielding plate. –MARK SINCELL

Mark Sincell writes from Houston, Texas.

FISHERIES SCIENCE

## Miscue Raises Doubts About Survey Data

A misrigged trawling net has brought a haul of problems for the U.S. National Marine Fisheries Service (NMFS). The faulty net has been used for the past 2 years in NMFS surveys of Atlantic fish populations, which help regulators set catch limits for cod and other important species. Now, some commercial fishers and members of Congress want the government to delay controversial catch restrictions that they say might be based on flawed data.

**All wet?** Critics say mismarked trawl net (*above*) might have biased fish population counts.

The controversy, which some have dubbed Trawlgate, was triggered last month when NMFS officials disclosed that the 1000-meter-long cables aboard the government research vessel *Albatross IV* were mismarked. The cables are supposed to carry marks every 50 meters, so that researchers can repeatedly pull trawl nets evenly across the bottom in annual efforts to track population trends. But officials said that the uneven spacing caused one cable to be as much as 2 meters longer than the other during typical tows, in which the net is lowered 70 to 250 meters. That could make the trawl lopsided and possibly reduce catches. The admission, prompted by a tip from a commercial fisher who 2 years ago noticed contractors misapplying the marks, produced a hailstorm of criticism from fishing groups. NMFS quickly invited six critics on a 3-day cruise that examined the troubled net with underwater video cameras and called a 2-day summit between scientists and fishers. On 3 October, the two sides reported that the error had an as-yet-undetermined "effect" on at least eight surveys over the last 2 years.

Independent researchers say the scientific impact of the misrigging is likely to be minor. But the mishap has accelerated efforts to overhaul the 60-year-old Atlantic survey program, which senior NMFS researchers at the summit described as "broken." Government officials and commercial fishers are already discussing ways to gather more and better data by using upgraded government equipment and getting more help from commercial trawlers.

Until such improvements are in place, some critics say the government should drop plans to help some stocks recover from decades of overfishing by limiting catches in New England and elsewhere. A federal court, for instance, has ordered New England regulators to cut catches by one-third or more by next August (*Science*, 17 May, p. 1229), a deadline Representative Bill Delahunt (D–MA) now wants the judge to delay for up to 2 years. "Given the documented shortcomings of the research, the only sensible course is to pause for a deep breath," he says. NMFS officials, however, note that almost none of the potentially flawed data were used in formulating the recovery plan, and they say it should move ahead.

Government fisheries researchers, meanwhile, hope that the painful glitch will bolster their push for better—and better funded—stock-assessment efforts. "We've been wanting to make improvements for a while," says fisheries scientist Russell Brown of the Northeast Fisheries Science Center in Woods Hole, Massachusetts. "We just didn't expect to have to do it in this kind of charged atmosphere." –DAVID MALAKOFF

## ScienceScope

**Linear Leaders** The global competition to build the next huge linear electron-positron collider, a 30-kilometer-long machine aimed at answering fundamental questions in physics, appears to have become a two-horse race. Four teams are working on designs for the multibillion-dollar device, which would pick up the baton from the Large Hadron Collider now under construction at CERN near Geneva. But last week, at a meeting of the International Committee for Future Accelerators, Germany's TESLA collider and a joint bid from the Stanford Linear Accelerator Center (SLAC) in California and Japan's KEK particle physics lab emerged as the clear front-runners.

A panel that has spent 15 months vetting the four entries has identified about 30 R&D issues that must be addressed before physicists try to sell their favored design to funders. But panel chair Greg Loew of SLAC told *Science* that there are no apparent technical "show-stoppers" for the top two entries.

**Advancing Aurora** The European Space Agency (ESA) is getting ready to give potential funders their first look at blueprints for Aurora, a planetary research program that aims to send human explorers to the moon and Mars by 2030. As a first step, Aurora planners earlier this month commissioned studies of four robotic missions that would test the technologies needed to send a rover to Mars and return samples to Earth by 2009. In December, Aurora officials will present study results to ESA's 15 member nations and Canada. Funding decisions could come as early as next summer.

**Fire Fallout** In an ironic twist, the cost of fighting this year's record fires in the western United States has left many fire scientists without funding for studies aimed at preventing future burns. To pay for extinguishing fires on more than 2.5 million hectares, the U.S. Forest Service (USFS) has diverted at least $27 million designated for research. USFS officials say most of the money should be restored by spending bills pending in Congress. But for the moment, fire researchers have to cool their heels and possibly delay some planned projects.

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