



To the top. New observatory would study Earth's northern aurora, imaged here from space.

NSF Tips Its Polar Cap

The National Science Foundation (NSF) wants to help upper atmospheric scientists take it to the max—the solar max, that is—the peak period in the sun's 11-year emission cycle.

Science has learned that next year's proposed NSF budget, to

be unveiled on 6 February as part of the Clinton Administration's spending request for 1998, will contain a \$25 million Polar Cap Observatory (PCO) to be built near the magnetic North Pole in Canada. A radar and optical observatory, PCO will study the interaction of the sun and Earth's upper atmosphere, an electrical and magnetic coupling that may affect global climate, disrupt telecommunications, and cause the aurora borealis. "How the energy in the solar wind is dissipated is a major question for researchers," says Cornell University geophysicist Michael Kelley. PCO would also top off a chain of five NSF-funded radar facilities that runs from eastern

Peru to Greenland and is used to study the upper atmosphere.

If PCO is completed by 2001, it would allow geophysicists to home in on the sun's activity at its peak, predicted by some to be the most disruptive in 50 years. The observatory will also complement a \$125 million NASA satellite, to be launched in January 2000, that will collect data from the same region—60 to 120 kilometers above the Earth—that PCO will study.

The prospect of maxing out appeals to Tim Killeen, head of the University of Michigan's space-physics lab, who hopes to build instruments for both facilities. "We're poised for rapid advances in upper atmospheric science," he says. "These really are exciting times."

Bioethics Panel: Big Agenda, Small Budget

The president's advisers on bioethics met this month and planned to explore hot issues in genetics and clinical research in 1997, but the most urgent question they may face is: Where will their budget come from?

The National Bioethics Advisory Commission (NBAC), created in 1995, met in Washington, D.C., on 9 to 10 January to set its priorities. The subcommittee on genetics, for example, will study how U.S. medical institutions collect, store, and make use of human tissue samples, as well as how to protect personal privacy. The chair of this group—Thomas Murray, director of the Center for Biomedical Ethics at Case Western Reserve University—says he would like to commission papers on such topics as cultural attitudes toward tissue donations and research standards in other countries. Murray would also like to sample public opinion, perhaps through focus groups. Another subcommittee, chaired by James Childress, professor of religious studies at the University of Virginia, plans to update standards for obtaining consent from hu-

man subjects in research. Their first topic: how to obtain consent from the "cognitively impaired."

The background work for these projects will cost money, however, and at present, NBAC is living on a shoestring budget. The White House's initial plan was to fund NBAC with payments from all agencies that sponsor research on human subjects. But so far, only

Health and Human Services has kicked in, giving less than \$1 million. White House officials are still rounding up other sponsors, while seeking to extend the panel's charter beyond its official ending date of October 1997. Panel members are optimistic: Murray, for one, says his group will write a report by October, "on the assumption we will have the money."

Resolved: More R&D Spending

This week Senator Phil Gramm (R-TX) made a big pitch for increased federal spending on civilian research, proposing a Senate resolution to double civilian research spending over 10 years. While the measure, even if passed, would not be binding, it is seen as a shot in the arm for an R&D budget already under heavy fire from efforts to wipe out the federal deficit.

The resolution, first reported by the American Physical Society's Robert Park in the electronic newsletter "What's New," was introduced on 21 January, one day after President Clinton was inaugurated and as the new 105th Congress settled down to business. Ironically, it came on the heels of the formal introduction of the Republican majority's top legislative priority: a balanced budget amendment, which would have to be ratified by three-quarters of the states.

Gramm's resolution, which requires only a simple majority to become "the sense of the Senate," would cover most civilian research agencies. (The final list was still being worked out as *Science* went to press.) Several science lobbyists said they were unaware of the pat on the back from Gramm, who last year talked about spending more on biomedical research. The lobbyists welcome his support, however, and say the resolution would help persuade legislators to meet or exceed the R&D spending levels in Clinton's 1998 budget request, which will be released next month.

Storm Brewing Over Misconduct Definition

An interagency White House panel has been laboring behind closed doors since last spring on a new federal definition of scientific misconduct, and no one is willing to say where it's headed. But according to a source close to the issue, the draft definition is much narrower than current rules—so much so that National Science Foundation (NSF) staffers expressed concern when they were briefed on it last month.

The new definition is being written by a White House group called the Committee on Fundamental Science; it will replace the disparate versions now used by several agencies. The panel's draft, completed last month, is being kept under tight wraps. But a source involved in several high-profile misconduct cases has heard that the definition is going to be controversial: It is limited to fabrication or falsification of data and plagiarism (FFP), and drops a fourth general category of "other serious deviations" that is now part of NSF and Department of Health and Human Services (HHS) definitions. NSF staffers say they can't comment until the proposal is public, but NSF has vigorously defended the "other" category in the past.

Pittsburgh misconduct lawyer Deborah Parrish says that for the fraud police—HHS's Office of Research Integrity and NSF's inspector-general—dropping the "other" prong would mean big changes. NSF considers all scientific misconduct, including FFP, to be "serious deviations" and has pursued "other" cases such as sexual harassment. And although ORI limits its investigations to FFP, it has compelled universities to investigate "other" misdeeds such as breaching confidential peer review, Parrish says.

Ernest Moniz of the White House Office of Science and Technology Policy says his office expects to brief other agencies on the new definition in the coming weeks.