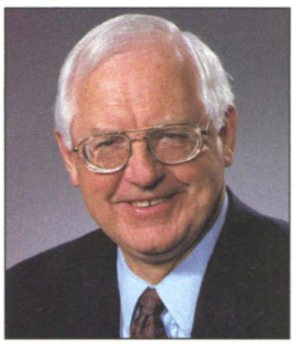
ronmental Health (NCEH). Earlier this month, the government put 11 new members on a 16-member committee, according to a roster obtained by *Science*, apparently without consulting NCEH Director Richard Jackson. Jackson could not be reached for comment, but an HHS official confirms that HHS Secretary Tommy Thompson's staff has assembled a new roster of advisers.

"The last time anything like this [overhaul] happened was under [former President Ronald] Reagan," says departing committee member Ellen Silbergeld, a toxicologist at the Johns Hopkins University Bloomberg School of Public Health in Baltimore, Maryland. Silbergeld, who has worked with environmental groups, maintains that the new lineup is weighted with people who take a jaundiced view of environmental regulations and that similar Reagan-era changes at the Environmental Protection Agency were "demoralizing to the people being advised."

But HHS spokesperson William Pierce says it's disingenuous to criticize the Bush Administration for installing like-thinking individuals "when every Administration does that. ... That's like saying, 'Gosh, there's gambling going on in this casino.'"



CREDITS: (LEFT TO RIGHT) R. A. FLYNN; JHU BLOOMBERG SCHOOL OF PUBLIC HEALTH

NCEH coordinates responses to public-health dangers from anthrax to hurricanes. In doing so, it investigates everything from microbes to radiation. The old committee, according to its chair, Thomas Burke of the Hopkins School of Public Health, was "very activist in support of" NCEH. During his 5-year watch, NCEH launched a major expansion of the Environmental Public Health Tracking program, which tests for human exposure to synthetic chemicals. Its first report, issued in March, detailed widespread low-level exposure to organophosphate insecticides and chemicals called phthalates, used in fragrances and cosmetics. According to Silbergeld, the tracking program offers "a revolutionary opportunity to make health policy based on data." But the report also rankled some pesticide and chemical manufacturers.

> **"I'm offended if anybody thinks I represent any constituency other than the best possible science."**
>
> —Roger McClellan

The new NCEH advisers include a number of prominent industry consultants and critics of federal regulation. Among them are toxicologist Roger McClellan, an Albuquerque, New Mexico–based consultant and former director of the Chemical Industry Institute of Toxicology; Becky Norton Dunlop, a vice president of the conservative Heritage Foundation who battled federal environmental regulators as a Virginia official; and Lois Swirsky Gold, an expert on risk assessments who has minimized reports linking environmental pollutants and cancer. The new panel is expected to hold its first meeting in November.

Advocates of strong federal regulations seem most upset by the inclusion of Dennis Paustenbach, a California-based toxicologist whose firm conducts paid risk assessments for industry. Paustenbach, for example, was an expert witness for California utility Pacific Gas and Electric in a trial involving allegations that the company had poisoned drinking water with a deadly form of chromium—the theme of the movie *Erin Brockovich*. But Paustenbach rejects the critics' claim that he echoes industry views. Pierce says that the names of McClellan and Paustenbach were put forward by John Graham of the Office of Management and Budget, who is himself a target of environmentalists (*Science*, 14 December 2001, p. 2277).

Barry Bloom, dean of Harvard School of Public Health in Boston, says that it's essential to involve industry in environmental research that affects them. "But everyone should have scientific credentials," says Bloom, who serves on another CDC advisory committee. Pierce says that the new appointees are qualified and "committed to the mission of the center." McClellan, a member of the Institute of Medicine, says, "I'm offended if anybody thinks I represent any constituency other than the best possible science."

NCEH's Jackson appears not to have played a role in the selection process. Silbergeld says Jackson called her on 9 August to say that "a whole new board ... has been selected for me." She recalled: "We both noted how unusual that was." Pierce, however, says that Thompson's staff gave the committee no special scrutiny.

> **"The last time anything like this happened was under Reagan."**
>
> —Ellen Silbergeld

Critics are worried that the new advisory committee will push NCEH toward policies that favor industry, but Pierce and others point out that the center's director is free to ignore the committee's advice. More important, says Burke, is to avoid having the committee and NCEH work at cross purposes: "A supportive committee is essential" to public health.

–DAN FERBER

COSMOLOGY

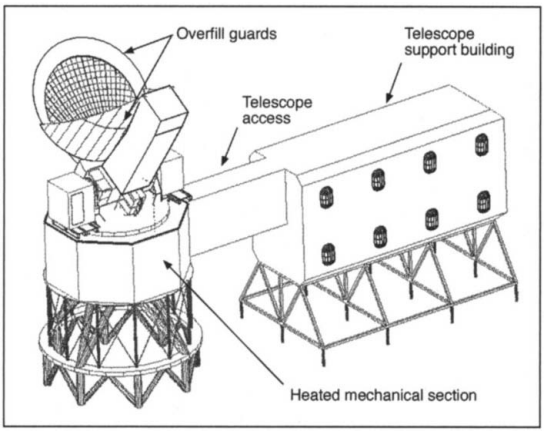
NSF Funds South Pole Microwave Telescope

Cosmologists will soon look at the sky in a new way. The U.S. National Science Foundation (NSF) has agreed to fund a $17 million microwave telescope at the South Pole that offers a novel approach to mapping the distribution of matter in the universe.

On 15 August, the National Science Board, NSF's governing body, approved a proposal to build the as-yet-unnamed telescope to survey the heavens. "It will be a real revolution in cosmology," says Antony Stark of the Harvard-Smithsonian Center for Astrophysics in Cambridge, Massachusetts, one of the co-investigators of the telescope project.

The telescope will make use of the

Sunyaev-Zel'dovich (SZ) effect, named after Russian physicists Rashid Sunyaev and Yakov Zel'dovich. The SZ effect is a distortion in the energies of photons left over from the early ages of the universe and occurs when those photons bump into hot electrons in galaxy clusters. Submillimeter-wavelength telescopes can detect the telltale distortion of the SZ effect, helping cosmologists find galaxy clusters too distant or dim to be spotted by other means. Those observations, in turn, can help cosmologists figure out how the clusters evolved—and possibly identify the location of dark matter in the universe.



Polar explorer. Planned telescope, shown with lab building, will start scanning Antarctic skies about 2006.

The new 8-meter telescope will focus light from the sky on an array of sensitive heat-sensors called bolometers, allowing the telescope to map large areas of the sky at one time. "It will do several square degrees per day and hundreds of square degrees per year, depending on the weather," says Stark. "You will be able to see all significant clusters of galaxies in that area."

"We're really delighted" that the telescope has been approved, says John Carlstrom, an astronomer at the University of Chicago and principal investigator of the project. So are other cosmologists. "In 5 years, we'll have a much better understanding about the physics of the evolution of clusters," says August Evrard, a cosmologist at the University of Michigan, Ann Arbor, who explains that galaxy clusters, along with supernova data and cosmic microwave background (CMB) measurements, form a "triad" of crucial observations for cosmology. "We're really just opening the door on this kind of investigation."

Astronomers chose the pole because its altitude and extraordinarily cold, dry air preserve the very faint signal of the SZ effect that otherwise would be swamped by heat from the ground and atmosphere and scrambled by turbulence. "Being in the central Antarctic plateau is almost like being in the stratosphere," says Stark. "Antarctic astronomy has been a tremendous success." The new telescope will join about a dozen other NSF-funded astrophysical instruments installed at the pole in the past decade and operated by a consortium of universities.

Carlstrom expects that it will take about 4 years to build the telescope and get it into working order and another year before the first scientific data become available. In addition to resolving any technical problems in design and fabrication, scientists must also conquer the forbidding logistics of moving 60 tons of equipment to the pole. However, the SZ survey marks just the beginning of the telescope's life.

"This really is not a proposal to build a telescope," says Dennis Peacock, head of Antarctic research for NSF's Office of Polar Programs. "They're proposing to do a certain set of measurements of great importance, and they need the telescope to do those measurements." After the SZ survey is complete, he says, the telescope can take on new scientific challenges.

One likely target is the search for polarization in the CMB, one of the hottest areas in cosmology. Cosmologists suspect that the CMB is polarized—that incoming photons have preferred "orientations"—but scientists so far have not been able to see that polarization. The new telescope can easily be modified to search for a particularly faint polarization in the CMB, caused by gravitational waves that resulted from the rapid inflation of the early universe.

With funding assured, astronomers can now tackle another important item of business: finding a snazzy name for the instrument. "We have to get clever now," says Carlstrom. "We're open to suggestions."

–CHARLES SEIFE

CREDITS: (TOP TO BOTTOM) J. CARLSTROM/UNIVERSITY OF CHICAGO; NASA/JHU-APL/CORNELL UNIVERSITY

CELL BIOLOGY

Alliance Launched to Model *E. coli*

All cell biologists have at least "two cells of interest," wrote biologist Frederick Neidhardt of the University of Michigan, Ann Arbor, in 1996: "the one they are studying and *Escherichia coli*." The lowly intestinal bacterium has been an indispensable tool for half a century. Now it is the object of a mammoth international modeling effort that is expected to occupy hundreds of scientists for 10 years at a cost of at least $100 million.

Scientists around the world are busy computerizing models of parts of interesting cells, such as yeast and the *Haemophilus influenzae* bacterium. But as yet there is no comprehensive computer model of an entire

ScienceScope

Sensitive Meeting The White House is seeking science and university group views on new guidelines that could restrict access to "sensitive" government information. Bush Administration officials met last week with about a dozen research advocates to discuss the new rules, which could be out in draft form within a few months. "It was a listening session: a chance for [research advocates] to voice concerns," says Shana Dale, chief of staff at the White House Office of Science and Technology Policy (OSTP).

Several science lobbyists who attended say that Administration officials did not detail their thinking but did reassure the group that university-based basic research was not the target of the emerging policies, which aim to keep "sensitive homeland security information" generated by government scientists and contractors out of hostile hands. How the rules would affect more applied studies was less certain, they said.

"There are no clear answers yet," says Dale, who notes that the White House Office of Management and Budget hopes to release a proposal for public comment by the end of the year.

Contour 2? As hopes of recovering the comet-bound Contour spacecraft fade, NASA officials have named an admiral-studded panel to look into the disaster—and begun considering a second try at the nearly $100 million mission.

Mission director Robert Farquhar of Johns Hopkins University's Applied Physics Laboratory in Laurel, Maryland, says "we are not very optimistic" about the spacecraft, which apparently blew apart on 15 August when it began a rocket burn designed to lift it out of Earth's orbit (*Science*, 23 August, p. 1253). Telescopes have picked up evidence that it exploded into at least three pieces.

The investigation panel, which will be led by NASA chief engineer Theron Bradley and will include two retired admirals, is expected to report this fall. Engineers, meanwhile, are looking at building a replacement that would not require a solid rocket motor burn in orbit but might require a larger—and more expensive—launch vehicle. The Contour program does not have enough spare parts for a second spacecraft, so a new mission would be costly, although agency officials say it is too early to estimate a price.