reef recovery program that combines education with more careful management. But "climate change is a tragedy not of our making," says Sarwono Kusmaatmadsa, Indonesia's Minister of Maritime Affairs and Fisheries, calling on the industrialized world to shoulder more responsibility for the causes of global warming. Although potentially costly to industrialized nations, such efforts would be good for local economies, conferees noted. Indeed, coral reefs provide the basis for an estimated $400 billion fishing and tourism industry around the world. That figure provides another—and for some more compelling—reason to protect coral ecosystems.

–DENNIS NORMILE

2001 BUDGET

NSF and NASA Score Last-Minute Victories

Moved to generosity by the impending elections and a big budget surplus, Congress last week gave both NASA and the National Science Foundation (NSF) significant hikes for 2001. After traveling a rocky road to reach this point, legislators gave NSF $4.42 billion, a $522 million boost over this year that nearly matched NSF's 17% request. NASA received $14.3 billion, nearly twice the White House's request for a 3% boost—but with hundreds of millions of dollars in earmarks added on.

When the House and Senate differ on funding, they usually produce a final budget by splitting the difference. But this year leaders "compromised" on a total for both NSF and NASA that exceeded the earlier levels set by either body. "I really like Congress's math this year," quipped NSF director Rita Colwell. "I'm thrilled with the outcome." Leaders greased the legislative process by adding in numerous last-minute increases requested by such key members of the Appropriations Committee as Senators Barbara Mikulski (D–MD), Robert Byrd (D–WV), and Ted Stevens (R–AK).

The Senate had been considering a NASA bill nearly $200 million below the Administration's request, which would have required the space agency to scale back many programs (*Science*, 22 September, p. 2018). The House version was lower, at a whopping $377 million less than the request and just slightly above the 2000 level. The final bill, however, leaves space science with a $2.5 billion budget—$100 million more than requested and well above the $2.2 billion spent in 2000.

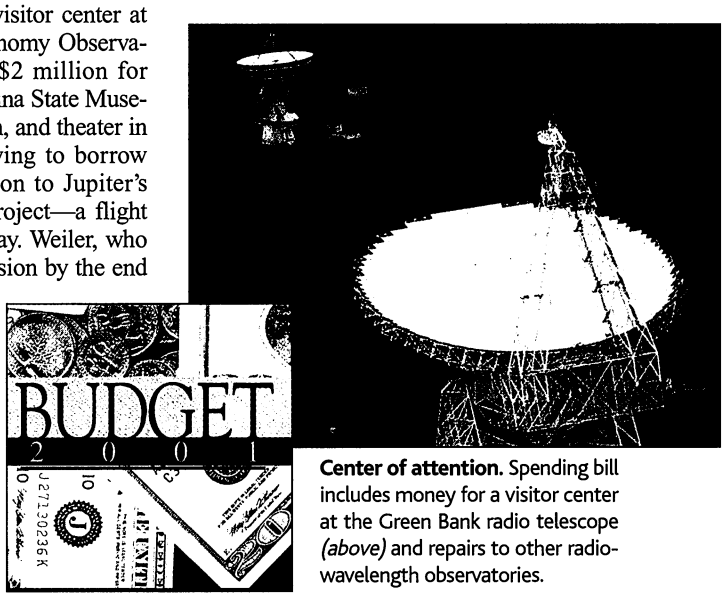
Ed Weiler, NASA's space science chief, cautions that the boost won't give him much wiggle room to cope with inflation in planetary missions, several of which are likely to cost more than promised. The flexibility disappeared because much of the new money will go to pork-barrel projects, such as $10.5 million for education centers on Mauna Kea in Hawaii, $4 million for a visitor center at the Green Bank Radio Astronomy Observatory in West Virginia, and $2 million for equipment at the South Carolina State Museum's observatory, planetarium, and theater in Columbia. But Weiler is trying to borrow funds from a planned mission to Jupiter's moon Europa to keep one project—a flight to Pluto—from a lengthy delay. Weiler, who aims to rule on the Pluto mission by the end of November, acknowledges its scientific merit but notes that "Europa is clearly the priority of the White House."

In contrast to the small increase NASA requested, NSF asked for a record $675 million boost in 2001, or 17%. In June the House voted for a rise of just 4%, and last month the Senate approved a 10% hike, so the final 13.3% boost made NSF officials very happy. Even so, Congress failed to fully support several key initiatives. The bill provides $215 million of a $327 million request for information technology research, $150 million of the $217 million sought for nanotechnology, and $75 million of the $136 million planned for biocomplexity.

But Congress responded with enthusiasm to projects that promised tangible benefits for local institutions and had strong backing from influential sectors of the scientific community. Although legislators avoided earmarks to individual institutions, they shelled out more than the Administration had requested for programs that support smaller states, graduate fellowships, and informal science education. They also rejected NSF's request for $29 million to begin two ground-based research networks, substituting $12.5 million to continue work on a high-altitude research plane that had fallen off NSF's list of priorities for 2001. And they added $15 million for badly needed upgrades and repairs to radio telescopes in West Virginia, New Mexico, and Puerto Rico.

One big winner is the agency's 20-year-old program to bolster the 20 states that traditionally receive the fewest federal research dollars. Long a congressional favorite, the Experimental Program to Stimulate Competitive Research (EPSCoR) this year received a 56% boost, to $75 million.

"Everybody's delighted," says Joe Danek, head of the nonprofit EPSCoR Foundation that represents the eligible states. The money will help NSF fund a competition now under way that will award up to $3 million a year to build research capacity in EPSCoR states and assist researchers applying for funding through regular channels.



Center of attention. Spending bill includes money for a visitor center at the Green Bank radio telescope *(above)* and repairs to other radio-wavelength observatories.

CREDIT: M. BAILEY/NRAO

President Bill Clinton is expected shortly to sign the bill, which was bundled with a $24 billion measure to fund the Department of Energy and various water and conservation projects.

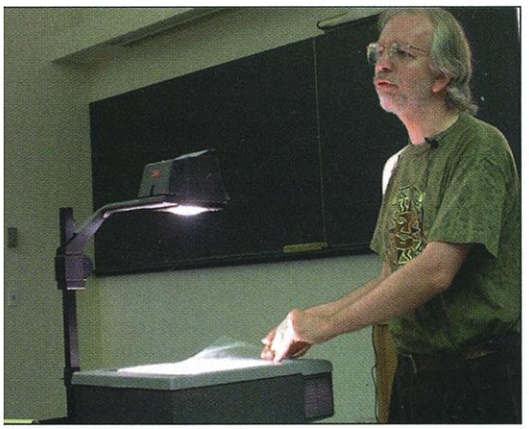
–ANDREW LAWLER AND JEFFREY MERVIS

ACADEMIC COMMUNITY

Institute Goes to Court To Remove Researcher

The Institute for Advanced Study (IAS) in Princeton, New Jersey, has served for 70 years as a peaceful haven for scholars, including Albert Einstein. But this fall it is embroiled in an uncharacteristically tense—and public—fight to remove one of its tenured professors.

The persona non grata is Piet Hut, a 47-year-old astrophysicist who was hired at the



In the spotlight. Piet Hut is fighting to keep his job at the Institute for Advanced Study.

precocious age of 32. This summer the institute asked a court to enforce a 1996 agreement in which Hut promised to leave by 2001. This month Hut countersued, saying that he was coerced into signing the document and that the institute is trampling on his academic freedom. The matter was first reported by *The New York Times*.

A number of scientists have come to Hut's defense; many feel that the institute is making a big mistake. "It's not Piet Hut's fault," says University of California, Berkeley, astronomer Frank Shu, who adds that "the institute made a gamble" when it appointed someone so young. "Now they have to either live with it or find some compromise." Alar Toomre, an applied mathematician at the Massachusetts Institute of Technology, says that IAS, by going to court, "is damaging its own reputation more than anything Piet Hut might have done."

The institute's director, Phillip Griffiths, issued a statement saying that the conflict is a contractual one and "not an issue regarding tenure or academic freedom." In its suit, filed on 25 July before the federal district court of New Jersey, IAS argues that Hut hasn't fulfilled his early promise and should abide by the 1996 agreement. Institute officials declined to comment further on the case.

IAS tapped Hut in 1985 as an up-and-coming assistant professor at Berkeley with a solid publication record in stellar dynamics. In 1986 he and an IAS postdoc, Joshua Barnes, published the famous Barnes-Hut "tree algorithm" that is widely used in computer simulations. By 1989, however, according to the institute's complaint, then-director Marvin Goldberger felt that Hut ought to "look for another position," and Hut agreed that "he was not performing … and … would never perform at the level … achieved by other faculty members."

In 1993, a visiting committee called Hut's appointment a "mistake," according to the court document, and in 1995 the faculty of the School of Natural Sciences agreed at a meeting—attended by Hut—that "Hut's presence was having a detrimental effect" on the IAS. In 1996, the institute froze Hut's salary and got him to sign a letter agreeing to leave in 2001. In 1999, he signed a formal contract, but withdrew his consent during the 1-week period allowed by the contract.

Hut dismisses the negative job assessments, saying that there has been no formal evaluation of his work and that the visiting committee had little regard for his field of computational physics. He says the problem started with a 1993 dispute with string theorist Ed Witten over Hut's desire to buy an expensive supercomputer. Witten has declined to comment. Hut also says that the institute threatened to cut his salary and marginalize him if he didn't sign the 1996 letter. He says he went along initially because he saw no alternative.

Hut has no shortage of supporters. Computer scientist Joseph Traub of Columbia University and the Santa Fe Institute calls him "one of the most stimulating, creative, intelligent, serious scientists" he has known. More than a score of other scientists, including Princeton astrophysicists Edwin Turner and Bohdan Paczyński, have publicly defended Hut's scientific credentials and accused the IAS of violating his academic freedom. Hut also has many admirers among those working in the interface of science and religion, a subject that has attracted his interest in recent years.

As for his earlier work, Shu explains that stellar dynamics and computational modeling was a hot area in 1985 but that, "for whatever reasons, the subject suffered a decline" as cosmology and theoretical physics moved to the fore. Some of Hut's contributions, such as building a special-purpose chip for rapid calculations, are more valued in engineering than in physics, he adds.

Whether or not Hut belongs at IAS, many scientists think that the institute has committed a major blunder in going to court. "They're giving themselves and, to some extent, science a black eye," says Shu. "It's bad for everybody."

–CONSTANCE HOLDEN

CREDITS: (LEFT TO RIGHT) MITSU HADEISHI; AMY VEDDER AND A. WILLIAM WEBER

ECOLOGY

Pacific Salmon Run Hot and Cold

Overfishing. Dams. Disease. There's plenty to blame for the ups and downs of Pacific salmon—and humans are often the guilty party. But a new study spotlights another, more natural force driving salmon numbers: climate.

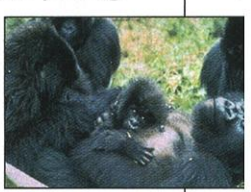
Using a novel technique, described on page 795, paleoceanographer Bruce Finney of the University of Alaska, Fairbanks, and his colleagues have been able to chart the

ScienceScope

Matchmaking A trio of leading Canadian science groups want to create a new "National Academies of Canada" that will provide expert advice to the government. Earlier this month, the heads of The Royal Society of Canada, the Canadian Academy of Engineering, and the Canadian Academy of Medicine (being established by the Canadian Institute of Academic Medicine) asked the government to spend $2 million a year to found the new body. That's less than other nations spend to obtain similar advice, says Royal Society president William Leiss.

But few politicians besides science czar Gilbert Normand have endorsed the idea. The lack of enthusiasm may stem from a consultant's 1994 conclusion that the Royal Society had failed a government-sponsored, $5 million, 5-year test to see if it could reposition itself as some form of national academy. Still, if the proposal matures, the new academy could fit snugly into the Interacademy Council, an international body being established "to do studies for the U.N., World Bank, and similar clients," says U.S. National Academy of Sciences president Bruce Alberts.

Great Apes Cash In Conservationists are jubilant over a new federal effort to protect great apes. After hearing how logging and illegal hunting are pushing several species to the brink of extinction, the Senate last week unanimously passed the Great Ape Conservation Act. The measure, already approved by the House and a sure bet for President Clinton to sign, authorizes the government to spend up to $5 million a year over the next 5 years to protect wild chimpanzees, gorillas (above), orangutans, gibbons, and bonobos.



Ape programs might not get any cash this year, however, as Congress has already finished work on the 2001 spending bill that covers the U.S. Fish and Wildlife Service, which will administer the fund, says Christine Wolf of the Fund for Animals in Silver Spring, Maryland. And although the bill allows the government to spend up to $5 million per year on apes, supporters will have to lobby hard to convince Congress to appropriate the full amount. Similar funds for elephant, rhino, and tiger protection routinely get no more than $1 million a year. But chimpanzee expert William McGrew of Miami University in Oxford, Ohio, isn't disappointed. Even $1 million, he says, could make a big difference to ape conservation in key African and Southeast Asian countries.