

says, "is a little premature."

But if Henry is right about the transit, the planet's orbit must be edge-on. Combining that orbital inclination with the wobbles in its parent star, the team could calculate its exact mass: 0.63 Jupiter masses, or 200 Earth masses. From the observed brightness drop, they estimate the diameter of the planet at 225,000 kilometers—60% larger than Jupiter. That puts the bloated planet's density at 0.21 grams per cubic centimeter, far less than that of water. "It has to be gaseous," says Marcy.

According to Marcy and Henry, the discovery puts to rest the nagging possibility that stellar wobbles aren't due to planets at all, but to rhythmic pulsations of the entire star or some other intrinsic cause. But with so much hanging on a single observation, Henry would like to dispel any doubts by repeating it. A second transit should have occurred on 11 November, but it took place during daylight in the United States and could not be observed. The third was predicted for last Sunday night, 14 November. Henry, Marcy, Butler, and Vogt had announced their discovery on 12 November, so that other astronomers could watch for the dimming. But both the Fairborn Observatory and Lick Observatory in California, where another team tried to observe the event, were clouded out that night.

Because upcoming transits will happen when the star is below the horizon of Fairborn observatory, confirmation will have to come from other teams. Marcy says he isn't worried. "We already believe it," he says. "The first brightness dip happened exactly at the predicted moment. If this was due to something else, Mother Nature would have played a horrible trick upon us." —GOVERT SCHILLING

Govert Schilling is an astronomy writer in Utrecht, the Netherlands.

NIH

Protests Win Changes to Peer-Review Proposal

Sometimes, it pays to fight City Hall. Biomedical researchers who protested that their fields were slighted in a proposed reorganization of the National Institutes of Health's (NIH's) peer-review system are winning at least some concessions. Responding to the complaints, NIH's Panel on Scientific Boundaries for Review last week penciled in changes to its blueprint that will give heightened prominence to AIDS, urological, and development research. It also made clear that further fine-tuning is likely before it issues its fi-

nal "Phase 1" report on the overall structure of the peer-review system in January.

The panel, headed by National Academy of Sciences president Bruce Alberts, originally proposed organizing the more than 100 study sections run by NIH's Center for Scientific Review (CSR) under 21 supercommittees known as integrated review groups (IRGs). Sixteen of these were to be centered on disease or organ systems and five on basic research whose relevance to specific diseases cannot yet be predicted. But in more than 800 e-mail and conventional comments on the draft proposal, many scientists argued that their fields were overlooked or downgraded. AIDS and urological researchers mounted what appeared to be organized letter-writing campaigns (*Science*, 5 November, p. 1074). So, at its 8 to 9 November meeting, the panel:

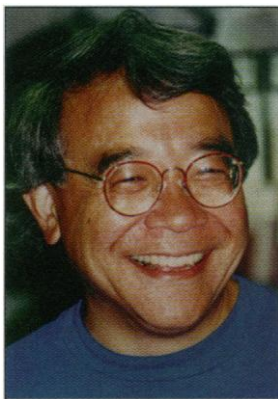
- Proposed creation of three additional IRGs—AIDS and AIDS-Related Research, Renal and Urological Sciences, and Biology of Development and Aging—bringing to 24, rather than 21, the number of IRGs in its proposed peer-review structure;

- Made clear that it is leaving intact—at least for the time being—the four new IRGs that were created in 1998 and earlier this year for neuroscience and behavioral research, completing the merger of the National Institute of Mental Health, the National Institute on Drug Abuse, and the National Institute on Alcohol Abuse and Alcoholism into NIH; and

- Promised a series of conference calls with experts in other fields to "further refine" its proposed IRG structure.

According to CSR director Ellie Ehrenfeld and molecular biologist Keith Yamamoto of the University of California, San Francisco, chair of the CSR Advisory Committee, the first targets of those phone calls will be leaders in fields whose practitioners felt scorned by the panel's initial draft. These areas include toxicology, nutrition, pediatrics, gerontology, dental and craniofacial sciences, radiation oncology, and surgical research.

On some issues, the panel simply has to explain itself better. For example, says Yamamoto, some chemists worry that the panel wants to force basic chemistry research into a physiology mode, whereas "our actual goal was to ensure a venue at NIH for fundamental chemistry." In addition, "some basic scientists are reading the draft report and saying, 'Oh, they're just going to make everything disease-based,'" Yamamoto says. "And some clinician-scientists are saying that the basic scientists are going to take over the whole review system."



Misunderstood? Yamamoto clarifies peer-review plan.

ScienceScope

Warning Shot NASA space science chief Ed Weiler (below) is losing patience with Gravity Probe B, the \$400 million spacecraft that would test Einstein's theory of general relativity by measuring the space-time curvature caused by Earth. Mission planners say they need an extra 11 months and \$30 million to fix problems with the probe, which was supposed to launch next October.

Weiler is ordering a technical review of the program, in the works for more than 2 decades, to determine what it will take to get the probe into orbit. "We've already spent hundreds of millions on this, and I don't want to spend hundreds of millions more," he says. If the review—due to be finished by the end of the year—concludes that \$30 million is sufficient to get the program back on track, Weiler says he will find the money. If that is not enough, he says, he may discuss terminating the program at a senior NASA managers meeting in February.

Killing Gravity Probe B—the brainchild of Stanford University scientists—would pose political dangers for NASA, however, given the strong support for the program from California's congressional delegation. But Weiler waves off that threat. "My job is to do the right thing for American taxpayers; someone else can worry about the politics."



Sharing the Weather Wealth India and the United States have moved to fill a meteorological monitoring gap that has handicapped weather forecasters and climate scientists. Researchers from both nations gathered this week in New Delhi to inaugurate a data-sharing center that will immediately transmit information gathered only by Indian satellites to users worldwide. In the works for 16 years, the data-sharing agreement "is a dream come true," says James Dodge of NASA's earth sciences program.

India has historically denied prompt international access to its weather data, including Indian Ocean cloud-cover images and temperature records, saying that potential enemies might use it to better target missiles or time attacks (*Science*, 17 October 1997, p. 379). But now, in exchange for electronic access to massive U.S. climate databases and other information, India will give researchers abroad a real-time look at its holdings.

Indian forecasters say that the center, which will also conduct forecasting research, will help them spot potentially dangerous storms earlier. U.S. researchers, meanwhile, say closing "the India gap" will lead to better global climate models.

For biomedical researchers, the nail-biting will continue for a while. Only after the Boundaries Panel completes its final Phase 1 report, which will propose the lineup of IRGs, will officials begin the hard part—drawing the boundaries of individual study sections within those IRGs and testing the system to see how it would work. That is expected to take at least another 2 years, and additional changes to the blueprint seem inevitable. “We’re feeling our way,” Alberts cautions. “We’re scientists who are doing experiments.”

—BRUCE AGNEW

Bruce Agnew is a science writer in Bethesda, Maryland.

INDIA

Cyclone Wrecks Rice, Botanical Centers

NEW DELHI—Two major Indian laboratories are struggling to recover from a powerful cyclone that swept across parts of eastern India late last month. The storm, which packed winds of up to 280 kilometers an hour, caused extensive damage to the Central Rice Research Institute (CRR) in Cuttack and its



River of ruin. A killer cyclone in eastern India washed away roads and homes and uprooted millions.

germ-plasm stocks as well as destroying much of the collection of rare and exotic plants at the Regional Plant Resource Center (RPRC) in Bhubaneswar.

More than 8000 people have died and 15 million have been left homeless in the eastern state of Orissa, which was cut off from the rest of the country for 3 days after the storm struck on 29 to 30 October. The storm surge drove seawater as much as 15 kilometers inland in what has been described as the worst cyclone of the century.

The cyclone has “ravaged the entire campus” of India’s premier rice research center, CRR director Shanti Bhushan Lodh reported last week. All windows facing north were shattered, and the biotechnology, biochemistry, and engineering departments were filled knee-deep with water. Indian Council

of Agricultural Research officials this week announced a \$500,000 emergency grant to help in the rebuilding of the 53-year-old institute, which remains without electricity and water.

The 70 hectares of rice in experimental plots at the center have also been devastated. Lodh estimates that only a third of the 10,000 rice varieties being grown survived the gale-force winds and subsequent flooding that swept across the region. “The green fields of rice have now turned gray,” he says. Gurdev Khush, chief of rice breeding at the International Rice Research Institute in Los Baños, Philippines, says the devastation will be “a major setback for India’s rice research program” and a “tremendous loss” for scientists around the world.

Probably the worst affected will be the rice germ-plasm collection, which had its roof blown away and its refrigeration units flooded. The 22,000-strong varietal collection, one of the world’s largest, is a medium-term storage facility accessed by researchers around the world. Fortunately, most of its collection is duplicated at the National Gene Bank in New Delhi, a long-term repository for the seeds. In addition, a quick-thinking

scientist reportedly salvaged much of the lab’s supply of temperature-sensitive enzymes and reagents by taking the materials with him on a flight to Chennai a few days after the cyclone.

The damage was even heavier at the RPRC, one of the largest botanical gardens in the world. Created 20 years ago, the center is spread over 197 hectares on the outskirts of the state capital and bore the brunt of the cyclone’s fury. Most of its

valuable collection of rare trees, palms, bamboos, and medicinal and aromatic plants appears to have been destroyed. Director P. Das estimates overall damage at more than \$2 million; in addition to the destruction of labs, stores, and other structures, many roads and paths have been washed away. “It’s the only center of its kind in India,” says H. Y. Mohan Ram, an economic botanist at the Department of Environmental Biology of the University of Delhi.

Lodh is thankful that none of his 140 scientists lost their lives in the storm, but notes that “morale is very low.” A visit last week from a government team resulted in the emergency grant and a backup generator, but Lodh says that the center needs “maximum help” to recover from the devastation.

—PALLAVA BAGLA

AIDS VACCINE

Chimps and Lethal Strain a Bad Mix

BETHESDA, MARYLAND—For the first time in the history of the AIDS epidemic, the National Institutes of Health (NIH) convened a public meeting to discuss a proposed HIV vaccine experiment in chimpanzees. The reason for the extra scrutiny: The test involves giving the animals a strain of the virus that quickly destroys their immune systems and possibly even causes disease.

For 2 years, researchers have debated the science and ethics of injecting chimps with a potentially lethal HIV strain to test whether the immune response triggered by experimental AIDS vaccines can block infection or prevent disease (*Science*, 19 February, p. 1090). But what was a simmering academic dispute has now become a real-world dilemma. The National Cancer Institute’s Marjorie Robert-Guroff has proposed just such a test of a vaccine her lab has been developing with the drug company Wyeth-Lederle. A successful experiment, she argued, would help convince colleagues—and Wyeth—that her vaccine approach deserves more support than it’s been receiving.

Billed as a “consultation” to help NIH decide whether it should back Robert-Guroff’s trial, the 5 November meeting triggered impassioned debate over the role that animal “models” should play in the search for a vaccine. It also revealed that anyone who wants to use a lethal HIV strain in chimps first must build a compelling case—something Robert-Guroff failed to do, as the assembled researchers were unenthusiastic about her proposal, apparently leaving it dead in the water. “We recognize this is a complex issue,” said Peggy Johnston, who convened the meeting and heads the AIDS vaccine program at NIH’s National Institute of Allergy and Infectious Diseases. “This consultation is the first step, not the only step.”

Robert-Guroff’s vaccine is now in small-scale human trials to test its safety and ability to trigger an immune response. As her group described in the June 1997 issue of *Nature Medicine*, they had first tested the vaccine—consisting of HIV genes stitched into a harmless adenovirus—in chimps. In the most impressive study, they vaccinated four chimps and then “challenged” them with an injection of an HIV strain that doesn’t appear to harm the animals. More than 10 months later, none had detectable HIV in the blood, while the lone control was infected. “We were pretty encouraged by this study,” Robert-Guroff said. However, she admits that the results drew a tepid reaction from colleagues. “They said we really didn’t show anything, as the [challenge] virus was too wimpy.”

CREDIT: BIKAS DAS/AP