

any more precisely than sometime in the last 1.3 million years.

Whatever the exact date, the recent collapse of the WAIS is no longer in doubt. Now the question is when the WAIS might disintegrate again as the world warms—and how rapidly it might flood low-lying coasts.

Glaciologist Johannes Weertman of Northwestern University put a scare into the field 25 years ago when he argued that the ice sheet, sitting on a concave bed that is below sea level and fringed with floating ice shelves, should be prone to collapse rapidly if the climate warms. He explained that even a slight warming-induced retreat of the ice's grounding line—where it begins to float off the bottom—will move the grounding line into thicker ice. The thicker the ice, the faster it flows outward and therefore the faster it thins. The faster it thins, the sooner it floats and moves the grounding line even farther inward. Such an accelerating retreat could consume WAIS in a matter of a century or two, Weertman argued. The ice sheet retains a modicum of stability, researchers came to believe, only because its ice shelves are wedged into semi-enclosed embayments like the Ross Sea.

Researchers have relaxed a bit since then as they have come to appreciate that spotty resistance along the ice sheet's bed is also helping to hold it together. But Scherer's finding comes on top of some more alarming recent predictions. Staff scientist Michael Oppenheimer of the Environmental Defense Fund in New York City recently reviewed the question of WAIS stability (*Nature*, 28 May, p. 325) and concluded from the ice sheet's somewhat erratic behavior of late that its most likely fate is disintegration during the next 500 to 700 years, greatly accelerating sea-level rise beginning in the 22nd century. If that scenario comes to pass, it will be small consolation to Florida landowners to know that it has all happened before.

—RICHARD A. KERR

SOLAR PHYSICS

Earth to SOHO, Come In Please

Controllers have lost contact with one of the most productive solar astronomy satellites ever. While controllers were putting SOHO—the Solar and Heliospheric Observatory—through routine maneuvers on Wednesday, 24 June, a safeguard program kicked in unexpectedly, apparently sending the craft into a spin. The craft's high-gain communications antenna is no longer pointed toward Earth. Although communication should still be possible through two omnidirectional low-gain antennas, "so far the baby does not talk back to us," says Franco Bonacina, a spokesperson for the European Space Agency (ESA) in Paris.



Darkened sun. SOHO is no longer capturing views of the sun such as this image of the corona.

SOHO, a joint NASA-ESA project, was launched in December 1995 and has since been monitoring the sun with 11 different instruments from a vantage point 1.5 million kilometers sunward from Earth. The \$1 billion mission has gathered data on everything from the sun's internal structure (*Science*, 26 June, p. 2047) to outbursts of gas from the sun's atmosphere, called coronal mass ejections. SOHO's success persuaded planners to extend its operations—originally meant to end last spring—through 2003, to allow the spacecraft to observe the sun as its 11-year cycle of activity peaks.

"The next couple of years would have been a different mission, because the sun is a different sun," says Bernhard Flick, ESA Deputy Project Scientist for SOHO at NASA's Goddard Space Flight Center in Greenbelt, Maryland. As a result, last week's mishap is "potentially a tremendous loss," says Cambridge University's Douglas Gough, co-investigator on three experiments studying solar oscillations, which hold clues to the sun's structure and motions.

The crisis began when controllers at Goddard began a maintenance operation for the spacecraft's orientation system, which spins reaction wheels to rotate the craft. These reaction wheels often accumulate momentum during corrections, and NASA spokesperson Bill Steigerwald explains that the technicians fired thrusters to hold the craft steady while the reaction wheels were slowed. The craft then suddenly entered the "emergency sun reacquisition mode," which automatically fires thrusters to point SOHO back toward the sun if it loses its bearings. "The telemetry stopped before the thrusters stopped firing. The reason is not clear at this time," says Steigerwald.

SOHO researchers now face a tense wait to see whether the mission can be saved. The satellite's solar panels are probably turned away from the sun now, draining the batteries and making communication impos-

ScienceScope

HENNEY NO SHOO-IN

Critics are urging caution as the Senate considers the nomination of Jane Henney, vice president for health sciences at the University of New Mexico, to head the Food and Drug Administration (FDA).

Henney—formerly number two at FDA under David Kessler—has been praised by many public health leaders. But some medical industry officials question her commitment to streamlining the FDA bureaucracy and speeding up the drug approval process as mandated by a law passed last year. Steve Northrup, director of the Medical Device Manufacturers Association of Washington, D.C., also worries about her ability to strike an "appropriate balance" between the interests of consumers and manufacturers. Henney co-chaired a panel that in 1992 persuaded the FDA to impose a moratorium on breast implants, a decision that, Northrup says, was based on a poor reading of the science. Some



conservative members of Congress also look askance at Henney because of her ties to perceived archliberal Senator Edward Kennedy (D-MA). Her husband, Robert Graham, worked on the staff of the senator, who is her strong supporter.

Senator James Jeffords (R-VT), chair of the Labor and Human Resources Committee, has responded to critics by saying Henney's confirmation hearing, which will probably be held in August, "is not going to be a quick one."

POPULISM AND PEER REVIEW

The old elitism-versus-populism conflict has popped up once again as the 1999 budget for the National Science Foundation (NSF) moves through Congress.

The Senate bill gives NSF \$12 million to add three new science and technology centers (STCs), for applied molecular biology, to its existing roster of 24. But the nation's top research universities—defined as the 100 now getting the most NSF money—wouldn't be allowed to compete. The agency's peer-review system is "biased toward more established institutions," explains the report.

Nils Hasselmo, new president of the Association of American Universities, which represents most of those top schools, disagrees. Federal R&D funds should go where the expertise is, he says, and not be "a subsidy to universities." The House concurs: A spending panel last week voiced its support for peer review as the determinant in making STC awards, setting the stage for a compromise later this summer.

As for the proposed lightweight launcher—a four-stage vehicle dubbed Vega that would loft a 700-kilogram satellite—Brachet argues that the projected launch cost of \$20 million is too high. “The competition is with the East, and they are selling such launches for between \$10 million and \$12 million,” he says. Even a seemingly innocuous resolution on closer cooperation between ESA and the European Union may prove divisive, as some ESA members favor more EU input into space policy while others oppose it. European space politics are alive and well.

—HELEN GAVAGHAN

Helen Gavaghan is a writer in Hebden Bridge, U.K.

SCIENTIFIC COMMUNITY

Panel Says Some UFO Reports Worthy of Study

On 8 January 1981, a man working in his yard in Trans-en-Provence, France, claims to have heard a low whistling sound and turned to see an ovoid object land in his garden. Thirty seconds later it rose and departed in the direction of a nearby forest, leaving a 2.4-meter diameter, ring-shaped imprint in the ground. The police and the government's Unidentified Aerospace Phenomena Study Group sampled the compacted soil and the damaged vegetation. Four labs analyzed the samples but reached no definitive conclusions as to what had happened.

The case may sound like an *X-Files* transcript, but it and other UFO tales got a serious 4-day hearing by nine senior physical scientists at a workshop late last year. In a report released this week, the panel concluded that some of the UFO events merited further scientific study (see www.jse.com/ufo_reports/Sturrock/toc.html). “Our feeling was [that] anything not explained is something science at some level ought to be interested in,” says Thomas Holzer, a geophysicist at the National Center for Atmospheric Research in Boulder, Colorado. Holzer was co-chair of the workshop, which was convened by Laurance S. Rockefeller.

For most scientists, the definitive word on UFOs came from a 1968 review spon-

sored by the U.S. Air Force and led by physicist Edward Condon. The Condon report concluded that “further extensive study of UFOs probably cannot be justified in the expectation that science will be advanced thereby.” But after hearing reports from eight UFO investigators, the new panel decided that although there was no convincing evidence that extraterrestrial intelligence was involved in the incidents, some events might represent novel atmospheric or other phenomena that are worth looking into.

Kendrick Frasier, editor of *The Skeptical Inquirer*, worries that the report will unjustly legitimize UFO research. Some of the scientists who organized the workshop have a record of enthusiasm for these exotic topics, he says. One organizer, Robert Jahn, a physicist at Princeton University, is well known for his experiments with psychokinesis. Peter Sturrock, a physicist at Stanford University who oversaw the effort, is president of the Society for Scientific Exploration, whose mission Sturrock describes as investigating topics such as “parapsychology and strange monsters,” which he feels are not adequately covered by mainstream science.

“Let me be clear: There is no justification for a crash program to look at unnatural phenomena,” says panel member Jay Melosh, a planetary scientist at the University of Arizona, Tucson. But panel co-chair Charles Tolbert, an astronomer at the University of Virginia, Charlottesville, notes that “meteorites were once considered to be a stupid idea. ... People said, ‘Rocks can’t fall out of the sky.’” Still, Tolbert says he doubts the sky harbors any alien spacecraft.

That level of skepticism doesn't satisfy Bob Park, a physicist at the University of Maryland, College Park, who is writing a book about what he considers pseudoscience. “I think [investigating UFO reports] is just a total waste of time,” he says. “Calling in all the people who have seen strange things just gets you a roomful of strange people.”

—DAVID KESTENBAUM

EPIDEMIOLOGY

NIH Panel Revives EMF-Cancer Link

Breathing life into a moribund debate over whether power lines cause cancer, an advisory panel to the National Institutes of Health (NIH) last week concluded that electromagnetic fields (EMFs) are a potential human carcinogen. But regulatory bodies haven't yet called for new measures to reduce EMF exposure, and some panelists quickly sought to downplay their own report. “I don't think you could conclude there's a real problem with EMFs,” says vice chair Arnold Brown, dean emeritus of the University of

ScienceScope

RICE RENAISSANCE?

The folks at the International Rice Research Institute (IRRI) in Los Baños, the Philippines—one of the groups that helped launch the Green Revolution in the 1960s—are hoping that new chief Ronald Cantrell will lead them out of the financial desert they've been wandering in for the past 2 years. Cantrell, head of Iowa State University's Agronomy Department, spent 6 years in the 1980s as maize research director at a similar international institute, CIMMYT in Mexico. Appointed to the IRRI hot seat last week, Cantrell faces “enormous challenges” in shoring up the institute's finances, strengthening international links, and restoring good will with the staff, says IRRI board chair Roelof Rabbinge. Cantrell could not be reached for comment.

IRRI and other international agricultural institutes have fallen out of fashion with donor nations in recent years (*Science*, 2 January, p. 26). Last year, budget cuts forced the previous director, George Rothschild, to lay off half the staff; he later bailed out partway through his 5-year appointment.

CHEAPER CHEMISTRY JOURNAL

The first fruit of a collaboration between libraries and scientific publishers to rein in soaring journal prices (see p. 7) will be a publication tentatively called *Organic Chemistry Letters*, the American Chemical Society (ACS) announced this week. To start as a monthly and evolve into a weekly, it will debut in mid-1999.

ACS is the first publisher to join up with a group called SPARC (Scholarly Publishing and Academic Resources Coalition), a U.S.-Canadian group established last year by the Association of Research Libraries. The journal will “not be just imitation but superior to” competitors—namely Elsevier's \$8000-a-year weekly, *Tetrahedron Letters*—says ACS publications director Robert Bovenschulte. The ACS product will cost \$2300. As with other ACS journals, there will be an online version and papers will be put on the Web within 2 days of final acceptance.

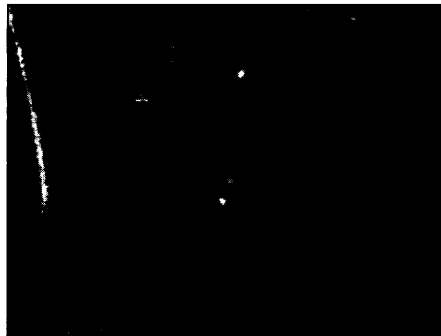
SPARC chair Kenneth Frazier of the University of Wisconsin Libraries says the 81-library group will deliver a ready market, as most are “expected” to subscribe to journals arising from the new collaboration.

Contributors: Eliot Marshall, Jeffrey Mervis, Dennis Normile, Constance Holden



GRANT HELLMAN

JOURNAL OF SCIENTIFIC EXPLORATION



Not a bird, not a plane. Object appears in photo shot on Vancouver Island in 1981.