

**ON THE RECORD**

**“We ran aground on a coral reef we were trying to protect.”**

Greenpeace says sorry after its boat, *Rainbow Warrior II*, hits an ecologically fragile reef in the Philippines.

**“I find it inconceivable that this paper is not well known.”**

Cornell physicist Neil Ashcroft is surprised to discover an obscure 1922 paper on superconductivity—by Albert Einstein. A translation of the paper is now on the arXiv physics preprint server.

Sources: CNSNews.com, PhysicsWeb

**SCORECARD**

**▲ Memorials**  
An art company based in Japan is offering a fresh twist for gardens of remembrance. It plans to make ‘living tombstones’ by generating trees whose every cell contains the DNA from a deceased loved one.

**▲ Child prodigies**  
An eight-year-old boy who dreams of building flying cars and joining the European particle-physics laboratory, CERN, has become the youngest pupil to enrol at a South Korean university.

**▼ Jet lag**  
Researchers in Chicago believe they have come up with a potent method for resetting travellers’ body clocks. They say that a combination of bright light and melatonin has a much stronger effect than either element on its own.

**NUMBER CRUNCH**

A survey by the American Association for the Advancement of Science reports that 40% of its members have had ‘difficulties’ acquiring patented technologies to use in their work. Among those who had problems:

**58%** said that their work was delayed by the difficulties.

**50%** said that the problem forced them to change their research.

**28%** had to abandon their project altogether.

Source: <http://sippi.aaas.org/survey>

L. PATERSON/SPL

Regulations on experiments involving human subjects are not always followed to the letter.

IMAGE  
UNAVAILABLE  
FOR COPYRIGHT  
REASONS

## Researchers break the rules in frustration at review boards

The watchdogs that oversee the ethics of human research projects can sometimes provoke scientific misconduct. That is the counter-intuitive conclusion of a series of papers to be published over the next few months. The authors, who specialize in research ethics, say they have evidence that some ethics panels are alienating researchers and inadvertently promoting deceit.

Patricia Keith-Spiegel of Simmons College in Boston, Massachusetts, says she began her studies after hearing of cases at other US institutions where scientists had violated research rules after feeling that they had been mistreated by institutional review boards (IRBs). Experiments involving human subjects in the United States, from social-science studies to medical research, must be rubber-stamped by an IRB. Researchers acknowledge that the boards are

necessary to ensure that subjects are treated correctly, but sometimes complain that the boards fail to understand the research involved and do not explain their decisions properly.

As an example, Keith-Spiegel cites a researcher she knows who became frustrated at lengthy IRB review times and so routinely

began data collection before receiving approval. Another researcher admitted to omitting aspects of protocols for research projects after receiving demands for numerous “picky” changes. Typical IRB requests include changes to

consent forms or restrictions on the type of questions that subjects can be asked.

“I realized that there are scientists who want to do things the right way but who are having to distort their research protocols because of perceived unreasonable or ridiculous demands from IRBs,” says Keith-Spiegel.

**“Researchers are more open to committing misconduct if they feel wronged by a review board.”**

These fears are backed up by a survey of misconduct rates among 3,000 researchers funded by the US National Institutes of Health. Published earlier this year, it found that a third of respondents had engaged in one of ten types of misconduct in the past three years (see *Nature* 435, 718–719; 2005, and B. C. Martinson *et al.* *Nature* 435, 737–738; 2005). Further analysis of the survey data, to be published next March in the *Journal of Empirical Research on Human Research Ethics*, shows that misconduct rates were highest among researchers who felt that they had been unfairly treated by other governing bodies in science, such as funding review panels. A similar relationship is likely to exist between misconduct and the perception of unfair treatment by IRBs, says Brian Martinson of the HealthPartners Research Foundation in Minneapolis, Minnesota, lead author on the two studies.

Keith-Spiegel has also studied the issue by asking scientists' opinions on fictional situations in which an IRB refused researchers permission for a study. In cases where the IRB responded in a curt manner, rather than explaining its decision, subjects empathized with the rejected researcher and assigned a less significant punishment if that researcher went ahead and ran the study anyway. The results are still being analysed, but Keith-Spiegel says they seem to suggest that researchers are more open to committing misconduct if they feel wronged by an IRB.

Keith-Spiegel and Martinson say that their findings can be explained by organizational justice theory, a well-established method for studying workplace relationships. Studies in work environments other than science have shown that employees are more likely to commit misconduct if they feel their managers are not giving them due reward or are treating them unfairly. In a paper due to appear in next month's *Ethics and Behavior*, Keith-Spiegel argues that the same relationship can exist between IRBs and scientists.

Ethics committee chairs who spoke to *Nature* say they try to avoid such problems by maintaining a good relationship with scientists. "I've certainly heard of problems," says Leigh Firn, chairman of an IRB at the Massachusetts Institute of Technology. "But we don't see ourselves as the ethics police. Unless it is something of substance we won't request changes." Brian Shine, a consultant at Oxford Radcliffe Hospitals Trust, UK, and chairman of a local ethics committee, adds that he invites researchers to meetings to discuss potential problems and always writes to them afterwards to clarify the discussion. ■

Jim Giles

## Boeing strike leaves satellites stranded on launch pad

A machinists' strike is hitting some US space projects hard. It has already delayed the launch of three atmospheric satellites and it could derail a major Pluto mission if it is left unresolved.

About 1,500 Boeing machinists and engineers walked off the job at facilities across the United States on 2 November, after talks between the union and the company on health care broke down. The machinists are responsible for the assembly and launch preparation of the company's Delta rockets, commonly used in scientific missions for NASA.

The strike stopped the countdown of the National Oceanic and Atmospheric Administration's hurricane-tracking satellite GOES-N, scheduled to launch on 5 November, leaving it stranded atop its Delta IV rocket in Cape Canaveral, Florida. Boeing officials are now assessing whether it will be possible to restart the countdown using non-union employees, says Robert Villanueva, a spokesman for the company.

And delayed indefinitely are NASA's CloudSat and CALIPSO satellites, which will study the global distribution of aerosols (see *Nature* 437, 468–469; 2005). They were set to launch on a single Delta II rocket in November, but those plans are now on hold. David Winker, principal investigator for CALIPSO, says that the delay is especially worrying because the satellites are meant to take part in international projects in which many teams collect climate data at the same time. "These things are going to go ahead whether we launch or not," he says. "It's close to being critical."

If the strike becomes protracted, it may even affect a mission to Pluto. New Horizons would be the first spacecraft to visit the Solar System's most distant planet, and the final stage of the vehicle is propelled by a Boeing engine. If the mission misses its month-long launch window early next year, its next chance will not be until February 2007. But Villanueva says it should be possible to complete the necessary work using replacement technicians and inspectors.

He adds that there is no schedule for resolving the strike: "Basically both sides are sitting back and leaving lines of communication open." ■

Geoff Brumfiel