tough question: how to bring the school bus–sized UARS back to Earth.

Launched in 1991, UARS is still beaming data from five of its 10 instruments that are monitoring global warming factors, such as water vapor and solar radiation, as well as chemicals, such as chlorine, that destroy stratospheric ozone. The observations have already revealed a mysterious rise in stratospheric water vapor having climate implications and confirmed the peaking of ozone-destroying chemicals due to an international agreement. Although the satellite is well past its 3-year design lifetime, project scientists had hoped to keep it operating until this fall, when the European Space Agency had planned to launch Envisat, a sophisticated environmental monitoring satellite. That would have provided some continuity of data. But the launch has been delayed because of the recent failure of an Ariane rocket.

NASA officials now intend to shut off UARS's instruments next week. "Giving up that overlap is difficult," says Anne Douglass, deputy project scientist. "I'm shocked," says Paul Crutzen of the Max Planck Institute for Chemistry in Mainz, Germany, who shared the Nobel Prize in chemistry for discovering the ozone threat. "It would be a tremendous loss."

NASA also must decide how to dispose of the 7-ton satellite. Most large satellites—such as the Mir space station—are designed so that they can be guided into the Pacific Ocean. But UARS was built in an era when engineers envisioned the space shuttle routinely orbiting and returning scientific spacecraft, and it lacks the thrust capacity to be placed on a path for controlled reentry. The shuttle is now busy building the international space station, however, and it may be tough to reserve one to reclaim a defunct satellite as well as find the $50 million needed for such a mission.

Left on its own, UARS would remain aloft for another 20 years. But a slow decay of its orbit would increase the chances that it would break into large chunks containing toxic batteries and fuel. Alternatively, NASA could adjust the orbit of the spacecraft in the coming year for the best possible flight path and vent the toxic fuel, but a truly controlled reentry is not possible. "There's no guarantee where it would come down," says Ondrus.

The pending shutdown of UARS "puts a downer on our [anniversary] party," says Douglass. "But we're still going ahead. This was a successful mission, and we have a lot to celebrate." **–ANDREW LAWLER**

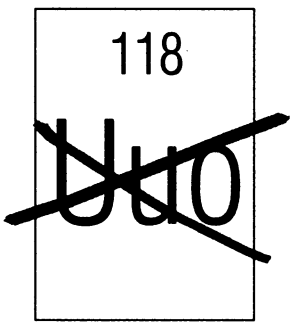
With reporting by Richard A. Kerr.

HEAVY-ION PHYSICS

Berkeley Crew Unbags Element 118

The superheavy element 118 just displayed an exotic property that nobody predicted: the ability to vanish into thin air. Physicists who thought they had created the most massive chemical element have retracted their claim in a short statement submitted to *Physical Review Letters*.

Two years ago, scientists at Lawrence Berkeley National Laboratory in California presented evidence that they had bagged element 118 along with its slightly lighter cousin, element 116 (*Science*, 11 June 1999, p. 1751). The news came as a shock to many scientists in the field, who thought that the method of the Berkeley team—gently colliding krypton nuclei with lead ones in the hopes that the two would fuse—had already been exhausted. "I was really surprised in May of '99," says Sigurd Hofmann, a nuclear physicist at the Institute for Heavy Ion Research (GSI) in Darmstadt, Germany. "If we had believed in fusion to make element 118, we certainly would have tried it here earlier." But in the face of the experimental data—three chains of alpha-particle decays that seemed to indicate the existence of a new superheavy element—teams across the world attempted to replicate the results.



Those attempts, at GSI, the GANIL heavy-ion research lab in France, and the Institute of Physical and Chemical Research (RIKEN) in Japan, all came to naught. But the extreme rarity of the new nuclei left it possible that a slight difference in the experimental setup or even a statistical fluke could be responsible for the failures. "Our experiment really did not disprove Berkeley's detection. There's a relatively high probability that the other experiments would see nothing," says Hofmann. So Berkeley tried, last year and this year, to repeat their own experiment.

They failed. In the wake of that failure, Berkeley researchers went back and reanalyzed their original data. "Those analyses showed that the chains reported are not there," says Kenneth Gregorich, a member of the Berkeley team. Gregorich has little idea what caused the false readings. "One of the possibilities is an analysis problem," he

ScienceScope

Indian Trial Troubles Hopkins Still reeling from a government-ordered shutdown of clinical research on its Baltimore, Maryland, campus (*Science*, 27 July, p. 587), Johns Hopkins University has run into a new furor over a project in southern India. The university announced this week that it has "directed" a faculty member "to cease all activities related to" research on an anticancer drug, after learning from news media of "serious allegations about the conduct of" a clinical trial last year at the Regional Cancer Center (RCC) in the state of Kerala.

According to media reports, RCC radiobiologist R. V. Bhattathiri raised questions about a trial led by Hopkins biologist Ru Chih Huang and RCC director Krishnan Nausing that is testing the use of tetramethyl NGDA to treat oral cancer. Bhattathiri told *Science* that he had alleged that 25 patients did not give proper informed consent, did not receive timely standard therapy, and were exposed to a potentially toxic substance. Indian officials are investigating.

Hopkins learned of the trial in March—and of the allegations on 16 July. It says its researcher reported that Indian authorities had approved the trial and that patients gave informed consent. But so far the school has found no record that the trial was approved by Hopkins officials or by the university's Institutional Review Board, which reviews clinical trials. It's not known whether the project received U.S. funding. Hopkins has appointed a three-member panel of experts "to develop the facts."

SOLEIL Protestors Prevail The French government has backed away from plans to privatize a new materials research center after protests from scientists. Earlier this year, the researchers briefly shut down two instruments to dramatize their opposition to a plan to operate the new SOLEIL synchrotron as a private nonprofit (*Science*, 23 March, p. 2293). The plan made it easier for other nations to participate in the project, but harder for the French scientists to move between jobs at government research centers.

Under a deal reached last week, the researchers—known as "Lurons" because they work at the LURE research center in Orsay—can choose between working for a public or private employer. Either way, most of LURE's 280 staff members are expected to join the SOLEIL's 350-strong payroll by the time the machine starts operations in 2005.

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