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

GRANT HEILMAN

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.

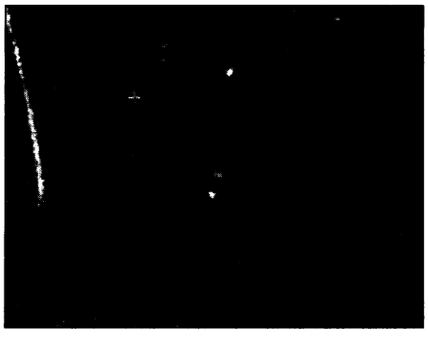
For most scientists, the definitive word on UFOs came from a 1968 review sponsored by the U.S. Air Force and led by physicist Edward Condon. The Condon report concluded that "further extensive study of UFOs probably cannot be justified in the expectation that science will be advanced thereby." But after 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



JOURNAL OF SCIENTIFIC EXPLORATION

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

EPIDEMIOLOGY

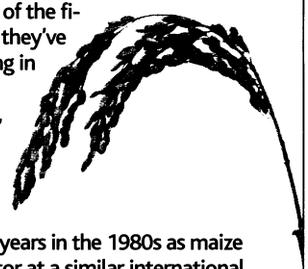
NIH Panel Revives EMF-Cancer Link

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

Wisconsin Medical School in Madison.

Still, the panel lifted EMFs off the canvas—however briefly—after a one-two punch had knocked the controversial topic off the list of credible health threats. In 1996, a National Academy of Sciences panel found "no conclusive and consistent evidence" for harm from residential exposure to EMFs generated by power lines, appliances, and other sources. Then last year, a major National Cancer Institute (NCI) epidemiological study found no evidence of childhood leukemia from EMF exposure (*Science*, 4 July 1997, p. 29).

Even before the academy and NCI weighed in, however, Congress in 1992 had created a research program called RAPID, run by the NIH's National Institute of Environmental Health Sciences (NIEHS) and the Energy Department, to examine EMFs. The law required NIEHS to form the advisory panel to review RAPID, which has spent $66 million on studying the effects of EMFs on everything from gene expression to breast cancer on Long Island. Chaired by Michael Gallo, a toxicologist at the University of Medicine and Dentistry of New Jersey–Robert Wood Johnson Medical School in Piscataway, the 30-member panel used a more liberal standard than most U.S. bodies would in judging EMFs: It followed International Agency for Research on Cancer criteria, which allow a substance to be labeled a carcinogen based only on an association in a population, even in the absence of evidence linking a substance to tumors in lab animals.

The latest EMF indictment is not based on any hot new data. An NIEHS-commissioned analysis of pooled data from several population studies upheld earlier findings—namely, that children living near power lines appear to have a 56% increased risk of leukemia. And it considered other studies finding a similar leukemia risk in adults exposed to high levels of EMFs at utilities and other workplaces. The panel voted 19–9 to classify low-frequency EMFs as a "possible human carcinogen"; their 400-page report, set for release this month, calls the vote "a conservative, public health decision based on limited evidence."

Experts are quick to point out that any cancer risk from EMFs is slight. After a 2-month public comment period on the report, NIEHS will calculate how many U.S. cancer cases might be due to EMFs, then send its final review on to Congress and other agencies. The panel did boldly come through with one recommendation: more research. If there is a link between EMFs and cancer, explains panelist Jerry Williams of Johns Hopkins University, "it's very small, very subtle, and very complex, and something we don't understand at any level." –JOCELYN KAISER

MEDICAL ETHICS

No Consensus on Rules for AIDS Vaccine Trials

GENEVA, SWITZERLAND—A meeting held here last week to try to set ethical ground rules for AIDS vaccine trials in poor countries almost reached boiling point when the participants grappled with a key question: If a vaccine is tested in a country that cannot afford anti-HIV drugs and volunteers become infected during the trial, should they be given state-of-the-art treatment? The answer could determine the ethical, financial, and scientific viability of AIDS vaccine tests. But for the 85 AIDS vaccine developers, ethicists, public health officials, lawyers, and activists from more than two dozen countries who tried to answer it, consensus proved elusive.

DAN UNEKEN

Mired mess. Harvard's Barry Bloom foresaw ethical problems for vaccine trials.

The meeting—an ad hoc advisory group to the United Nations' AIDS program, which will go on to recommend changes to international guidelines for all clinical trials—did reach agreement on some points. For example, the participants recommended ending the current requirement that a vaccine be tested first in the country where it is made, and they said trials should be more closely monitored to make sure that participants truly give their consent. These recommendations could lead to "major changes in the way trials are done," said Barry Bloom, a researcher at Harvard University who heads the UNAIDS Vaccine Advisory Committee. But the central controversy over how to treat those who become infected—the question that led to the meeting being called in the first place—remains unresolved.

The problem it poses for researchers was highlighted at the meeting by Mary Lou Clements-Mann of Johns Hopkins University in Baltimore. She pointed out that vaccines rarely prevent infection; rather, they prevent or modify disease. Hence a critical measure of the success of an AIDS vaccine trial would be whether the vaccine lowers the "viral load"—the amount of HIV in the blood—in people who get infected. But if many of those who become infected soon begin taking potent anti-HIV drugs, says David Ho of the Aaron Diamond AIDS Research Center in New York City, "you're not going to be able to see anything." Thus the widespread use of anti-HIV drugs could make it "impossible to design a scientifically valid [vaccine] trial," warned Clements-Mann.

But Don Francis, head of the San Francisco–based biotech company VaxGen, which just last week launched in the United States the first efficacy trials of an AIDS vaccine, argued that not everyone would start treatment immediately, and because researchers will take blood from participants every 24 weeks or so, they should be able to make at least one viral-load measurement in many untreated people who become infected. If the vaccine had an effect, said Francis, it should be relatively easy to determine. Ho remained skeptical. "I think it's tough in a country like the United States," he said. "Patients are going to be treated very quickly."

This problem could, potentially, be avoided by carrying out trials in poor countries where the expensive cocktails of anti-HIV drugs are unavailable and unaffordable, but is that ethical? According to the two most influential guidelines today for clinical research—the Declaration of Helsinki and a subsequent document written by the Council for International Organizations of Medical Sciences—the answer appears to be no. Both state that "every patient—including those of a control group, if any—should be assured of the best proven diagnostic and therapeutic method."

This principle was put to the test last year, when the Public Citizen's Health Research Group, an influential consumer-advocate organization based in Washington, D.C., slammed drug trials in developing countries that aimed to prevent mother-to-infant transmission of HIV. Public Citizen complained that the trials used placebos even though a U.S.–French study had already proved that an intensive regimen of the anti-HIV drug AZT would prevent transmission (*Science*, 16 May 1997, p. 1022). The researchers countered that they needed placebos in order to determine quickly whether a cheaper, simpler course of AZT—which would be more applicable in poor countries—might decrease transmission, too. (The dispute became moot when an interim analysis of one trial found that the shortened treatment worked.)

Public Citizen's attack set alarm bells ringing for AIDS vaccine researchers, because the same considerations should apply to people who become infected during vaccine trials. "I knew if we didn't deal with it in vaccines, we were going to get into the same mired mess," said Bloom.

The majority of the participants at the Geneva meeting agreed with the practical argument that people who become infected