sible. "There is a slight chance that the orbit may eventually take SOHO to a point where the solar panels are aimed at the sun," says Steigerwald. This would power up the craft and perhaps enable controllers to make contact with it again.

A team of specialists from ESA and from Matra Marconi Space, the builder of the craft, has gathered at Goddard to plan the rescue effort. "We haven't lost [SOHO] yet," says Gough. "I'm still optimistic."

–ALEXANDER HELLEMANS

Alexander Hellemans is a writer in Naples, Italy.

GENOMICS

Canada Proposes $175 Million Effort

OTTAWA—The Medical Research Council (MRC) of Canada has pledged $17.5 million toward a 5-year, $175 million national genomics initiative aimed at reestablishing the country's global position in the rapidly growing field. The money would seed a project much more ambitious than the one terminated in 1996 as part of government-wide austerity moves. First, however, the project's backers must raise more than $100 million in additional funds from the federal government and nearly $50 million from business and other sources.

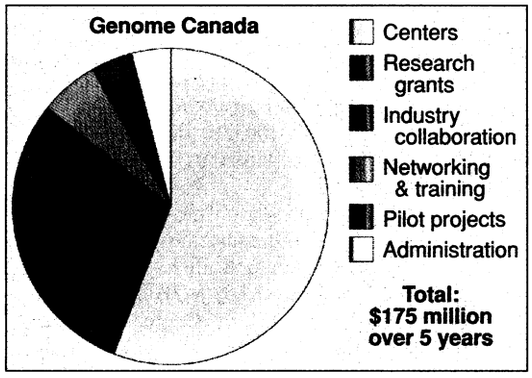
"The potential advantages to Canada are enormous," says Marc LePage, MRC's director of business development. "The initiative will address major diseases that affect a lot of Canadians, while helping to train young researchers in promising new areas like bioinformatics. Also, there's an economic advantage from industrial spin-offs that come from the field. Canada will be taking a major step forward here."

The initiative, called Genome Canada, would be the successor to the Canadian Genome Analysis and Technology program, created in 1992. Genome researchers have struggled to find support since its dissolution. "We've been thinking and talking while other people have been moving ahead," says geneticist Lap-Chee Tsui, head of the Centre for Applied Genomics at the Toronto Hospital for Sick Children. "We definitely lost a lot of ground in the meantime."

Tsui, who chaired an MRC-appointed Genome Task Force that crafted the proposal, says what's envisioned is a "structured" program focused on basic genomics research that can feed the growth of biotechnology companies across agriculture, forestry, the environment, and health care. "This time," he says, "we should have bigger centers and a much more coordinated effort, more targeted instead of purely investigator-driven."

The task force's report, which was adopted by MRC's governing board on 19 June, casts Genome Canada as a "virtual national institute" or consortium. In addition to managing a multidisciplinary research effort, it would help to broker early-stage and spin-off companies. The biggest component of the program, about $98 million, would be centers of research excellence in six fields: genome mapping and large-scale sequencing (with the goal of sequencing 25 to 50 megabases of DNA per year at three or four sequencing facilities); functional genomics; genotyping technologies; proteomics; bioinformatics; and medical, ethical, legal, and social issues.

Genome Canada joins a spate of proposals—like the Canadian Institutes of Health Research (*Science*, 8 May, p. 821)—rising like hot-air balloons in the suddenly balmy economic climate. But staying aloft will be a challenge. The magnitude of the projected federal contribution, some $108 million, will likely require a special Cabinet appropriation, and the Liberal government of Jean Chretien has warned repeatedly that talk of how to spend a sudden budget surplus is premature. The business plan also includes raising $28 million from pharmaceutical and biotechnology firms, $14 million from provincial governments, and $7 million from nonprofit organizations and foundations.



Ambitious plans. New initiative would link research, training, and applications in a "virtual national institute."

Although proponents admit they have set their sights high, they remain optimistic. They are hopeful that their efforts will be incorporated into a national biotechnology strategy expected to be issued this fall by Industry Minister John Manley. A report last fall by an outside panel of experts urged him to create such an initiative as a necessary condition of a flourishing biotechnology sector. "Everybody seems to be very much aware of genomics and the fact that Canada wants to play a big role in biotechnology," says Tom Hudson, assistant director of the Whitehead Center for Biomedical Research at the Massachusetts Institute of Technology and assistant professor at McGill University in Montreal. "We're thrilled [by MRC's announcement]."

–WAYNE KONDRO

Wayne Kondro is based in Ottawa.

SPACE

Remodeled ESA Backs Applications Projects

The European Space Agency's (ESA's) governing council last week approved development money for a new satellite-based navigation system, ESA's revamped Earth-observation program, an upgrade for the Ariane-5 rocket, and a new launcher for small satellites. The decisions demonstrate the agency's increasing focus on space applications since Antonio Rodotà, took over as the agency's director-general last July (*Science*, 5 September 1997, p. 1426). But the council's apparent unanimity masks major disputes that loom over some programs. Some heavy politics are in store before the more senior council of European space ministers decides next year on whether to implement the programs, and how much to spend on them.

MRC OF CANADA

The Earth-observation program is one potential area of discord. The ESA council is requesting about $330 million per year for a new program of scientific and applications missions (*Science*, 16 January, p. 316). But some countries think this is excessive. "We approve of the ideas," says Gérard Brachet, head of the French space agency CNES, "but they are aiming too high. We think [$190 million] per year is enough." Roy Gibson, the agency's first director-general and now a member of two panels advising ESA on Earth observation, is sympathetic to some reduction, but he says a level of $190 million would threaten the science content.

Even larger battles loom over the proposed satellite navigation system. ESA is hoping to develop both ground-based and satellite-borne equipment that would, during a first phase, make use of signals from the U.S. Global Positioning System (GPS) and Russian Glonass satellites to provide precise position information across Europe. A second phase, slated for 2010, could be anything from a joint system with the United States and the Russians to an independent European system. France, however, is concerned that the United States might deny access to GPS signals in some circumstances and seems to favor a European solution, while the United Kingdom prefers transatlantic cooperation. "This is a decision that will be taken at prime ministerial level," says Brachet.

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

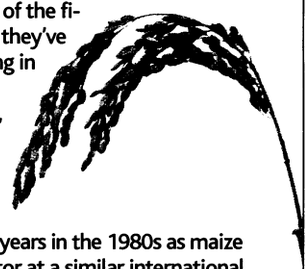
NIH Panel Revives EMF-Cancer Link

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