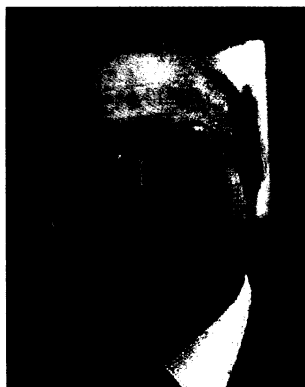


to 47. That's too old," says Manuel Espinoza, director of the Center for Biological Investigation in Madrid. "The total scientific staff employed by the CSIC is now 1800, whereas in France the number of equivalent research posts is many times higher." And the situation is about to get worse. In 1992, the Socialists created several hundred new positions on 3-year contracts to help postdocs working abroad obtain work back home. Alvarez was among those in this program. But Alvarez, like many of her colleagues who took the contracts, has been unable to find a permanent job, and the government extended some of the contracts for 2 years. All of the extended contracts will soon come to an end.

The budget increases are one response to this problem. They will result in more temporary jobs for scientists through the National



**Reversing decline.** Secretary of State for Research Manuel Jesus Gonzalez.

Plan, which for the first time now allows its grants to be used in part for the payment of salaries. The government has also been sympathetic to a request from the CSIC's president, Cesar Nombela, to create up to 150 new, permanent CSIC research positions this year, although some of these will be promotions for current staff. "I am confident the government will fund a substantial expansion," says Nombela. But senior researchers worry whether this will be sufficient. "It is just so hard for young researchers to get established," says Salas. "One result is that people are leaving science who are certainly good enough to continue," says molecular biologist Juan Ortin of the CNB.

An increasing number of researchers are now calling for a more radical solution: a complete overhaul of the career structure of the

CSIC to make it easier for young researchers to get onto a career track. CSIC staff members are tenured civil servants, and there is now wide support for a new kind of appointment for independent researchers on renewable contracts but with no automatic path to a civil service position. "Everybody wants a more flexible system, and it has to happen in the long term," says Ortin. "I'm confident we'll get support for a more flexible system, but that requires changes to legislation through parliament," says Nombela. And the message is getting through to the government. "We want to develop methods to incorporate young people into research without a necessary transition to public employment in the end," says Gonzalez.

Despite the government's bold words and budget promises, Spanish researchers, after witnessing so many ups and downs in the fortunes of science over the past 15 years, remain to be convinced of its commitment. "Spain really needs science, but I'm not convinced the politicians know how best to go about taking that into account," says Alvarez.

—Nigel Williams

## EARTH SCIENCE

### Gore Pushes Whole Earth Channel

If Vice President Al Gore has his way, a NASA satellite will soon be beaming back continuous pictures of the whole Earth from 1,600,000 kilometers away to anyone with a television or an Internet connection. The simple idea, announced last week, caught earth scientists by surprise, irritated Republican lawmakers, and sent the space agency scrambling to define the educational and scientific benefits of such a mission.

An array of U.S., European, Japanese, Chinese, and Indian satellites already monitors Earth at a height of about 39,000 kilometers, providing crucial meteorological data. But Gore envisions a telescope and camera mounted on a small spacecraft, to be launched by 2000, that would hover at the point where the sun's gravity cancels out that of Earth. That site would provide a vantage point for a constant view of the planet's entire sunlit face. An "Earth-Span" channel broadcasting this image in real time, said Gore during a 13 March speech at the Massachusetts Institute of Technology, "will awaken a new generation to the environment and educate millions of children around the globe." But some lawmakers worry that the project, which NASA says could cost as much as \$50 million, may endanger funding for other science efforts. And they wonder if it can't be done better by industry.

NASA Administrator Dan Goldin has embraced Gore's idea, which White House sources say came in the form of a middle-of-the-night brainstorm. Goldin gave the assignment to Ghassem Asrar, NASA's new

earth science chief, who says such a satellite offers several advantages over current systems. It could immediately gather and transmit data that otherwise would have to be stitched together in a time-consuming and difficult fashion, he says, and provide coverage of the polar regions. One satellite would also make it easier to track hurricanes or incoming solar storms. Gore has dubbed the satellite Triana, after the sailor on Christopher Columbus's historic voyage who spotted land.

The proposal surprised most of the scientific community. "I don't know what's involved," says Harvard University's Steve Wofsy, who chairs NASA's advisory panel on earth sciences, adding that he lacked sufficient detail to comment. M. R. C. Greenwood, president of the American Association for the Advancement of Science (which publishes *Science*) and chancellor of the University of California, Santa Cruz, discussed the idea briefly with Gore last week before the announcement and is supportive. "It's a good idea, but it hasn't been fully fleshed out yet," she says.

Some House lawmakers, however, are du-

bious about its value. Representative Dana Rohrabacher (R-CA), who chairs the space subcommittee that authorizes NASA funding, dismissed the idea as one of several "high-profile, politically motivated projects" that could be done by the private sector. "There's no reason this has to be done in a normal NASA fashion," says David Gump, president of LunaCorp of Arlington, Virginia, which wants to put a rover on the moon with the ability to send pictures back to Earth.



**Smile.** Galileo snapped this picture of Earth in 1990 on its way to Jupiter.

House Science Committee chair James Sensenbrenner (R-WI) says he would like Gore or his staff to testify before his committee about the project. "I want to know where the money is coming from and why this project got to the head of the line," he told *Science*. "This means less money for those efforts that were peer reviewed."

White House and NASA officials say they are open to suggestions on how to assemble the mission, adding that education rather than science is the driving force. Gore "just wants to see if this is feasible," a White House aide says. "If people find better ways to achieve the goal, then we'll be supportive."

—Andrew Lawler