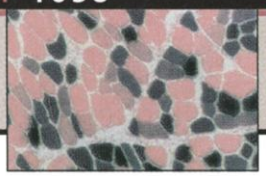


tinuing to make great contributions if restored to its full capacity," says John Bahcall, a neutrino expert at the Institute for Advanced Study in Princeton, New Jersey. "If I had the necessary skills, I would [go] to Japan to help with the repairs."

Equally encouraging is the supportive stance taken by the education ministry. Akira Yoshikawa, head of the ministry's Research Institutes Division, says that "the minister well understands the importance of this facility." Sobel says that he hopes to meet soon with officials at the Department of Energy, which funds the U.S. side of the collaboration, to see what support it might be able to provide. **–DENNIS NORMILE**

SPACE SCIENCE

European Programs Face Another Squeeze

European space scientists got an unsettling sense of déjà vu last week. The European Space Agency (ESA) had asked its 15 member governments for a 4% annual increase for its much-praised science program, but instead, government ministers meeting in Edinburgh approved only 2.5%—barely enough to keep up with inflation. A similar setback occurred in 1999, which means that space science funds have been stagnant for 6 years.

In contrast, Galileo, a program to build a European version of the U.S. Global Positioning System, and a plan to upgrade the Ariane 5 launcher received substantial boosts. "It's utterly unjust," says physicist Hans Balsiger of the University of Bern in Switzerland, a former chair of ESA's Science Program Committee (SPC). "I can see no reason why we are treated worse than everyone else."

The delegates also sent a strong signal of disapproval to the U.S. government on moves to cut back the size of the international space station. They reluctantly approved funds to meet ESA's obligations to the project, but they froze some 60% of the money until NASA makes clear its funding plans for the station and the number of astronauts that will live and conduct research there. SPC vice chair Giovanni Bignami, director of space science at the Italian Space Agency, called this a "wise decision," adding, "I would have made [the amount held back] bigger."

The SPC will meet early next month to decide how to carve up $1.65 billion for space science in 2002–06. Researchers contacted by *Science* believe that most missions planned for launch before 2010 seem secure, but some later ones, such as the Bepi-Colombo mission to Mercury, may have to be delayed. Missions beyond that, still in their planning stages, are threatened. David Southwood, ESA's head of science, told those meeting in Edinburgh that Gaia, an astrometry mission, was the most likely casualty. "Something has to give," he told *Science*.

Apart from the science program, to which all ESA members must contribute, a new optional program to develop missions to look for signs of life in the solar system, called Aurora, also got shortchanged. ESA had asked for $35 million to plan a series of robotic missions to other planets, moons, asteroids, and comets but came away with just $12 million. This should be just enough to set the ball rolling, however. "We can create a plan," says Paul Murdin, director of space science at the British National Space Centre. Italy had been one of the prime movers behind the Aurora project, but following a change of government last month the promised funds were not forthcoming.

Although space science was out of favor at the meeting, Ariane 5—the latest in a line of rockets that now account for more than half of all commercial launches worldwide—got a warm endorsement. It will be upgraded to increase its payload capacity, at a cost of $620 million. And in a groundbreaking collaboration with the European Union, ESA will launch its own fleet of 21 navigation satellites to help planes, trucks, ships, and even hikers pinpoint their positions with centimeter accuracy. Member governments pledged $470 million to design and develop the system, more than ESA asked for. **–DANIEL CLERY**

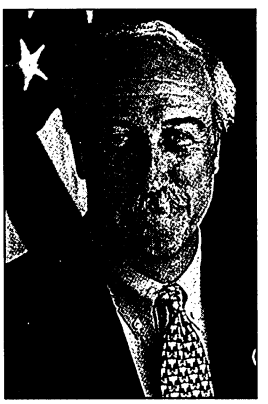
Stretched? Some medium-term projects such as the Bepi-Colombo mission may be delayed.

CREDITS: (LEFT TO RIGHT) ESA; AP PHOTO

SPACE SCIENCE

Insider Takes Over At NASA

Just over a week ago, Sean O'Keefe was publicly criticizing NASA for cost overruns and poor management. Now those problems are his responsibility. President George W. Bush nominated O'Keefe, 45, currently the deputy director of the Office of Management and Budget (OMB) and an influential Washington insider, on 14 November to NASA's top job, vacated on 16 November by Dan Goldin.



Connected. O'Keefe is plugged into the Bush White House.

O'Keefe's assignment is clear. "He is being sent to NASA to ensure fiscal responsibility," says one senior Administration official. "He will force things to be on time and on budget." Another manager who has worked closely with O'Keefe calls him "the consummate dealmaker." He has close connections to both Bush presidents and to Vice President Dick Cheney, having served in the first Bush Administration as Navy secretary and Defense Department comptroller. Senate confirmation is expected to be speedy.

O'Keefe's immediate task likely will be to address the concerns of NASA's international space station partners, who are angry at moves to scale back from six to three astronauts on the station, initiated by O'Keefe at OMB. European ministers warned in a press conference on the day of O'Keefe's nomination that they are prepared to scale back their own support in protest (see previous story). Meanwhile, NASA will be hard-pressed to resolve station cost overruns even if it adheres to O'Keefe's more modest version.

A second major crisis is brewing in the outer planet exploration program. Congress put $30 million into the 2002 budget for a flyby of Pluto, a program the White House