JAPAN

Merger Plan for Rival Science Agencies

TOKYO—Most support for science in Japan has been divided for decades between two fierce rivals, the Science and Technology Agency (STA) and the Ministry of Education, Science, Sports, and Culture (Monbusho). Like competing warlords, the two primary sponsors of Japanese science have fought for a larger share of the budget and competed to extend their turf into emerging scientific fields. But now they may have to learn to get along. A governmental panel has decided to recommend that the two be merged into one new Ministry of Science, Technology, and Education.

The decision to attempt a merger was made last week by the Administrative Reform Council, an ad hoc committee chaired by Prime Minister Ryutaro Hashimoto that is charged with producing recommendations for streamlining the entire Japanese government. For 4 days, the council holed up in a Tokyo hotel and mapped out a plan to reduce the number of ministries and agencies to 13, down from the current 22, to make government operations more efficient and reduce bureaucratic infighting. While the council succeeded in outlining a restructured bureaucracy, it did not work out all the details. A report due at the end of November will flesh out the agencies' specific roles and responsibilities.

The decision to streamline the scientific agencies does not mean the government intends to reduce support for research, says Nobuaki Kawakami, who heads STA's administrative reform office. "The members [of the reform council] are very aware of the importance of scientific research for Japan's future," Kawakami says. Japan's plans to increase its public science budget from 0.6% of gross domestic product—the figure that prevailed in the early 1990s—to 1% by the early 2000s will not be affected, he insists.

But even if the merger doesn't reduce funding, it is likely to impact some projects in ways that won't be clear until the details are worked out. It will be a challenge, for example, to blend the operating styles of the two agencies, which now have very different cultures. Monbusho, the primary source of support for university-based research, typically disburses relatively small amounts to individual researchers in a variety of scientific, engineering, and cultural disciplines. STA typically concentrates its resources in large-scale efforts in select applied fields—fusion research, for example, and commercial space development.

Makoto Fujiwara, head of Monbusho's reform office, says this means that even if the agencies merge at the governmental level, affiliated research institutes may well remain separate. For example, Monbusho's Institute of Space and Astronautical Science focuses on space science, while STA's National Space Development Agency emphasizes commercial applications, although recently it began to expand its efforts in remote Earth observation to support environmental research. Fujiwara says such institutes "are not likely to soon be merged into one."

Most scientists are reserving judgment on the merger, for now. "Rather than the overall framework, I think what's important is how the details are worked out," says Wataru Mori, a pathologist who is a former president of the University of Tokyo and a member of Japan's Council for Science and Technology.

The high-level reform plan may also affect research offices other than those directly funded by the science agencies. For example, the Reform Council recommended that the present Environment Agency be upgraded to ministry status and take over some functions of the Ministry of Health and Welfare. But it is not clear whether this change would boost or restrict funding of environmental research.

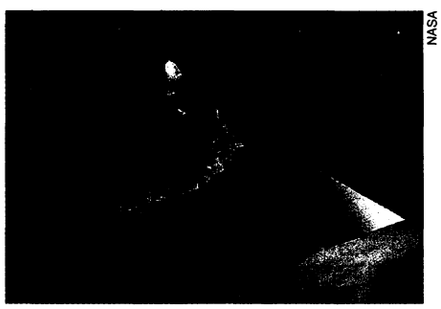
After delivering its November report, the reform council will send its recommendations to the legislature, which is scheduled to take up the issue early next year. If the reform efforts go as planned, the government will complete the restructuring by early 2001.

–Dennis Normile

MISSION TO PLANET EARTH

NASA Boosts Earth Science Grants

NASA's plan to launch a flotilla of Earth-observation satellites starting next year has sparked fears that the cost of the expensive hardware will leave little funding for researchers wanting to interpret the data. But last week, space agency officials said that, as part of a package of changes in the program—called Mission to Planet Earth (MTPE)—they have come up with significant savings that will be pumped into grants. By the year 2000, the plan would increase the number of 3-year research projects by nearly a third.


NASA

Money machine. Next year's launch of EOS-AM will spawn thousands of research proposals.

The pledge to boost science spending is a response to a 2-year review of the $6.5 billion effort, which has as its centerpiece a series of sophisticated satellites to gather myriad measurements of the planet's temperature, cloud cover, ice sheet mass, and atmospheric makeup. The review, by an outside group of scientists led by Pamela Matson, an ecologist at the University of California, Berkeley, stems from a 1995 study by the National Research Council that called for significant changes in the program (*Science*, 22 September 1995, p. 1665).

The Matson panel concluded last month that current funding for data analysis is "so low as to put science at risk." It noted that in one recent solicitation for projects to analyze land-use data, NASA was able to fund only 8% of the more than 250 proposals it attracted, and that dozens of rejected proposals were rated very highly by external peer review. MPTE officials concur. "The criticism has been right on target," acting MTPE chief William Townsend told reporters. "It's time to fix it."

By simplifying spacecraft and information systems, NASA will save enough money to boost annual funding for data analysis from $130 million to between $160 million and $165 million by the turn of the millennium, says Townsend. Initially, NASA also intends to limit the amount of space data processed so that the project's ground-based information system—plagued with budget, design, and managerial problems—will not be overwhelmed. The Matson panel strongly supports that move, but warns that the agency must come up with an "intelligent strategy for doing so ... and very soon."

In another cost-saving move, NASA plans to launch a re-engineered laser-altimeter satellite to gather data on ice sheets and cloud heights in 2001, a year earlier than planned, for a savings of $25 million over the original $225 million price tag. But the agency rejected calls from some in Congress to break up the Chem-1 spacecraft—the third in the Earth Observing System (EOS), which will carry atmospheric chemistry instruments—into smaller satellites. "We couldn't come up with anything we could do less expensively," Townsend says.

–Andrew Lawler