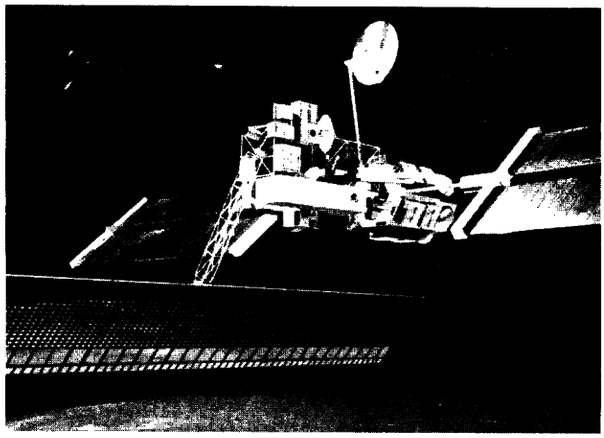
The committee's recommendations hardly reflect these scientific concerns. The panel would require the Department of Defense to create an exposure index based on troop records it says the CDC ignored. This index would then be used by a private organization to carry out a full epidemiological study of Agent Orange's health effects.

A Round of Applause (Sort of) for EOS

NASA hasn't been hearing many kind words of late, but on 21 August the agency did earn a few plaudits from the National Academy of Sciences. A new NAS report* on federal global change research gave the agency generally high marks on its plans for the Earth Observing System (EOS), a complex of new remote sensing satellites expected to cost some $30 billion over the next 15 years.

"NASA is approaching this in the right way," says the Academy's EOS panel chairman, D. James Baker of the Joint Oceanographic Institutions, Inc.

In particular, Baker and his fellow panelists tentatively defended the agency's much criticized plan to concentrate most of its new remote sensing instruments on a handful of massive platforms in polar orbit. Many space scientists have argued that it would be far better to distribute the instruments among maybe half a dozen smaller satellites, lest a single burned-out widget decimate half the program. Breaking up the instrument package would also allow NASA to place satellites in orbits optimally suited for their particular instruments.



While many panel members were indeed suspicious of NASA's tendency to gold-plate its projects, they finally concluded that the EOS-A platform, now planned for launch in 1998, is a good idea because so many of its cameras and sounding instruments will be looking at the same place at the same time. But the panel saw considerably less need to cluster instruments on EOS-B, now planned for launch in 2000, and urged NASA to consider dividing them up.

The panel also urged NASA to give continuing high priority to a series of small, specialized "Earth Probes" intended to monitor ozone depletion, tropical rainfall, and other such climatological indicators in the 1990s—even if tight budgets force a delay in the polar platforms. "The group felt very strongly about that," says Baker. "These probes are essential for the global change program."

*"The U.S. Global Change Research Program: An Assessment of the FY 1991 Plans," National Academy Press, Washington, D.C., July 1990.

A Fishy Kind of Pollution Detector

Coal miners, the stories go, used to take canaries into the mines to check for gas leaks. If the canaries stopped singing, the miners knew it was time for a speedy exit. Now, scientists in Bournemouth, England, have taken the same idea underwater, where they're using an African fish to look out for river pollutants.

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Trout are the fish of choice to monitor pollutants because toxins cause changes in their breathing. But because they can prove elusive—and because they're lethargic when the water gets cold—the British ecologists have settled instead on the West African elephant fish, *Gnathonemus petersii*. These exotic sounding creatures produce electrical discharges that make them easy to track. Better yet, they never get sluggish, because they are tropical fish that must live at a balmy 27°C all year round.

In its native Nigeria, the 4-inch fish, named for its trunk-like lower lip, lives in water so muddy that eyes are of little use. Instead, it gathers information by emitting a continuous stream of electrical pulses from modified muscles around its tail. A contented fish puts out between 300 and 500 pulses a minute, but if it becomes distressed by the presence of pollutants, the rate shoots up to more than 1000 pulses a minute.

The water company for Bournemouth, on England's south coast, has enlisted a team of 20 elephant fish to monitor the water the company extracts from the River Stour. Each fish at the company's laboratory lives in its own small tank which is continuously fed with warmed river water. Sensors in the tanks pick up the electrical pulses and pass them to a computer. If more than half the fish suddenly increase their electrical pulse rate, the computer sounds an alarm. Scientists then step in to assay the water and, if necessary, stop the pumps.

A New Fight Over Fetal Tissue?

Fetal tissue research is back in the headlines. Representative Henry A. Waxman (D–CA) last week announced his intention to override the Bush Administration's funding ban on fetal tissue transplant research. By inserting the override provision into legislation needed to keep the National Institutes of Health in business, Waxman has declared that he's spoiling for a fight to reverse the ban this year.

Secretary of Health and Human Services Louis W. Sullivan imposed the funding ban on 2 November, despite the judgment of an HHS advisory panel that such research, properly conducted, would not encourage abortions (*Science*, 10 November 1989, p. 752).

In addition to reversing the ban, Waxman's legislation would sharply curtail Sullivan's ability to restrict fetal tissue research. HHS would be limited to contesting specific research protocols, and then only if the secretary convenes a new advisory body to examine the ethical issues particular to the research at hand.

The legislation faces an uphill battle. The Bush Administration has shown no sign of changing its tune on the fetal tissue issue, and congressmen opposed to any kind of research on fetal tissue from induced abortion are certain to contest Waxman's plan when it reaches the floor of the House.