. . . Shuttle *Continued from page 93*

mote manipulator arm and extend it as far as 50 feet out of the hold for studies of the space *around* the shuttle. This could reveal traces of contamination from such sources as the crew cabin and over-wing areas. On the flight after that — the last of the shuttle's four scheduled test flights — the IECM will be equipped with an eleventh instrument: a plume-pressure gauge, to be held outside the cargo bay to monitor the exhaust pulsations of the shuttle's attitude-control rockets at various distances and directions from the nozzles.

Besides the IECM, the upcoming mission will carry a second instrument package dedicated to the welfare of future payloads. Called DATE, the Dynamics, Acoustic and Thermal Environment experiment consists of accelerometers and force gauges to measure dynamic loads, microphones for acoustic vibration effects, and thermal sensors. The DATE results may help engineers in deciding how various payloads must be insulated or shock-mounted, or where they should be placed in the cargo bay.

The IECM, meanwhile, will not retire after the shuttle's final test flight. It is also scheduled to accompany the first two Spacelab missions (so far booked on shuttle flights #9 and #21 in 1983 and 1984), in effect to calibrate the environment through which the myriad Spacelab sensors will be conducting their research.

Even "empty," the shuttle's cargo bay is far from a perfect vaccum. The IECM is to find out how far. □

. . . Letters

erate electricity). It could make the United States energy independent and even a net energy exporter by selling reflected radiant energy to owners of foreign ground sites. Such a happy situation could reverse our negative balance of payments as well as the drift toward economic stagnation in this country. One study (Billman, "Recent SOLARES Results," 7/24/79) showed that the initial capital investment on a world SOLARES system could be recouped every two and a half years. But we may never know SOLARES's full potential, since short-sighted public servants cut off the last dime of SOLARES funding shortly after this study was completed.

Max Gordon Phillips
Director of Public Information
Delta Vee Solares Project
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The National Research Council committee which evaluated the solar power satellite concept should be commended for their courage. Most of us crystal-ball gazers would not dare to claim that any energy technology still in the research and development stage will be economically uncompetitive as a source of energy 20 years from now.

The real irony is the NRC conclusion that no money should be spent on development of the solar power satellite concept, while simultaneously recommending periodic review of progress in new concepts and technologies that might bear on the idea. Hopefully the NRC will avoid study of nuclear fusion and other possible future energy sources, or we may find the United States waiting for others to do the development work so that we can periodically review progress in new concepts and technologies which might bear on these other energy alternatives.

James Ransom
Los Angeles, Calif.

It was with pleasure that I read that the National Research Council has had the good sense to recognize that solar-power satellites do not deserve further funds even for preliminary developmental planning.

The idea of enormous arrays of solar cells transmitting billions of watts of power to earth is technology run amok. The proponents of this outrage would have us sink $3 *trillion* in a project of uncertain feasibility at a time later in the century when parts of the world will quite possibly be facing starvation. All of this in order to provide the industrialized nations with electrical power more brilliantly to advertise their fried chicken and run their air conditioners.

As for the glorious beauty of the night sky, with SPS future generations would have to appreciate it through the accounts and photographs of their forebears, since the solar arrays would so fill the sky with light pollution. And that would be but a trivial side effect compared to other, potentially deadly, hazards of the system.

Imagine what it would mean for our nation to invest $3 trillion in energy conservation.

Denis Dutton
Dearborn, Mich.

Correction: The research reported in "Convincing consumers to conserve" (SN: 7/25/81, p. 58) originally appeared in the spring Journal of Social Issues.