

Bicentennial Symposium Series Ends

"Can Existing Economic, Political and Value Systems Cope with the Problems of the Earth?" This was the question faced on October 28 by participants in the fourth and final symposium in the Bicentennial Symposium Series. "Mounting Pressures on Planet Earth." Co-sponsored by the Maryland State Department of Education (MSDE) and the Goddard Space Flight Center, the Series was coordinated by Dr. James Latham (MSDE) and Dr. Jaylee Mead. Earlier forums had examined the questions of food, population, energy and other resources, as well as the role of science and technology in solving the problems of the earth. A report is being prepared to summarize the twelve lectures and panel discussions.

On October 29 a Youth Forum for 400 high school students from Maryland was held to discuss the same topic. A feature of this event was a very successful communications experiment in which the attendees in Goddard's Building 8 Auditorium were linked by the Canadian Communications Satellite with students at the Lewis Research Center in the morning and with another group at the Ames Research Center in the afternoon. Elva Bailey and Richard Crone of Goddard's Educational Programs Office worked with Randall Lake of MSDE to organize this event.



On October 28 Dr. James Addy of the Maryland State Department of Education (MSDE), representing the Maryland Bicentennial Commission, presented certificates of recognition to Dr. James Latham (MSDE) and Dr. Jaylee Mead for their contributions as coordinators of the Bicentennial Symposium Series, "Mounting Pressures on Planet Earth." Mr. Elva Bailey was also recognized for his work creating a series of forty 40-second historical spots for television, entitled "It Happened in Maryland."

Goddard Joggers Win Trophies

If a jogging trophy is your goal, better step up the pace this winter since competition will be keen at the next NASA intercenter jogging event to be held in April 1977.

Last October nine Centers participated involving a total of 208 men and women. The race was held over a two mile course, and was divided into categories by sex and age.

Although Goddard placed seventh, three of our eleven participants earned points. Lynn Puccinceli placed second in the under 30 category. In the men's divisions, Al Greenberg finished eighth in the 30-39 age group, while Emil Kirwin finished sixth in the 40-49 category.

Participation is open to all Goddard employees, government and contract.

NASA HOME SAVES \$\$

A house built with advanced energy conservation technology could save a homeowner an average of \$96.59 a month on mortgage and utility bills, NASA scientists estimate.

The researchers said in a paper presented at an international housing symposium, the 1,500-square foot house would contain air locks, a partial water reclamation system, a water-source heat pump supplemented by a solar collector and a wastewater heat recovery system.

The savings are contingent on the cost of a solar supplemental heat pump system being reduced from the current \$13,000 to \$6,000 in five years through mass production, they said.

Using the researchers' premise, monthly payments on a well-insulated conventional house would be \$282 on a 20-year, 10 per cent loan while the monthly cost for the advanced house would be \$375. Assuming a 10 per cent energy inflation rate, the average monthly utility bill would be \$223.41 for the conventional house and \$32.68 for the NASA design, they said.

NASA scientists also said a partial water reclamation system used in conjunction with conservation methods, including a small tank commode and special shower nozzle inserts, could cut water use by a family of four from 73,000 gallons a year to 34,000. The extra cost would be about \$600, but a net savings of \$1,273 over 20 years would result.

Landsat Tested for Use as Census Taker

Landsat-1 and -2, now being used to monitor Earth resources, may take on the additional task of "census takers" in the 1980 United States census.

The pair of spacecraft are currently undergoing a series of tests designed to evaluate their effectiveness in selective geographic operations of the U.S. Bureau of the Census. These tests are part of a joint technology transfer project which is being initiated by the Bureau of the Census and NASA.

Evaluation of the satellites' application to census requirements is being conducted at Goddard, and the U.S. Bureau of the Census, Suitland, Md. Goddard Project Scientist is Jerrold W. Christenson of the Information Transfer Laboratory (CENTRALAB).

Based on their ultimate performance in 1980, the robot census takers are expected to be put to work helping chart urban growth in subsequent censuses. Instead of once every 10 years, a complete U.S. census is now required every five years according to Public Law 521, signed by the President on Oct. 18, 1976.

Landsat images are not detailed enough for counting people or houses. They are used, however, to identify many geologic, agricultural and societal features, including residential patterns of growth.

Research on the use of satellite data for census applications was initiated in early 1975. Since then, satellite imagery of Prince George's County, Md., and Austin, Tex., has been processed for the identification of major types of land cover typical of the zone of transition from rural to urban landscape.

Prior to the 1980 national census, Landsat census tests will be made on a regional basis in the Pacific northwest, north central and northeastern sections of the country. These will be followed by verification tests in about 20 medium-sized urbanized areas across the country.

The first Landsat was launched July 23, 1972. It was followed by a second, identical spacecraft on Jan. 22, 1975. A third, improved Landsat is scheduled for launch in 1977.