



GOULD

to the chairman, has been appointed to the post. He will have jurisdiction over the divisions of environmental affairs, operational safety, waste management and transportation. Schlesinger announced that the new assistant general manager will have "responsibility for coordinating AEC environmental and safety activities within Commission-owned facilities, including the preparation of environmental reports that present the impact on the environment by AEC operations for broad review."

A new division of applied technology has been formed, bringing together the Plowshare program of peaceful nuclear explosives, isotope development and non-nuclear technology programs. This division is included under the jurisdiction of the assistant general manager for energy and development programs, who also has responsibility for reactor development and technology, international programs, space nuclear systems, and nuclear education and training. The latter division was transferred from the jurisdiction of the assistant general manager of research.

Such reorganizations are relatively common, as AEC functions change with changing national priorities. They are usually done for more efficiency and effective grouping, according to a former AEC official. —SMH

Two-part program for technician education

A Technician Education Development Program has been instituted by the National Science Foundation. One part of the program consists of grants to organizations, institutions or groups of technicians or scientists for curriculum development.

The other part of the program consists of direct aid to colleges. Initially, sup-

port will be restricted to those programs providing training in the physical sciences and engineering.

Information can be obtained from the Technician Education Development Program, Division of Undergraduate Education in Science, National Science Foundation, Washington, D.C. 20550.

Societal applications of space work to be examined

A series of pilot programs to explore the application of aerospace technology by state and local governments in coping with the environmental, economic and societal problems, has been funded by the National Science Foundation. The six projects include placement of scientists and engineers in decision-making positions, a study of the transferability of displaced scientists and engineers to other areas of the economy, the establishment of science and technology promotion activities by the states, development of a program to provide county engineering services and analysis of manpower needs at the local level. The awards total \$309 000.

Emory University to retrain space scientists

The National Science Foundation has awarded a \$51 000 grant to Emory University in Atlanta, Ga. for an experimental program to retrain former defense-aerospace scientists and technologists into research on societal problems. The project, which will focus on research in public-service areas such as waste disposal, health care, transportation and water pollution, will team up an unemployed scientist or technologist with a professor.

Twelve thousand dollars in support of the project has been pledged by citizens of Cobb County, Ga., who have joined with Emory University in developing this program.

Ultraviolet star catalog coming from Smithsonian

The first catalog of the stars as they appear in ultraviolet light will soon be published by the Smithsonian Astrophysical Observatory, according to Fred L. Whipple, observatory director.

More than 4500 of the 8568 ultraviolet television pictures received by Project Celescope, the Smithsonian experiment aboard OAO-II (Orbiting Astronomical Observatory) were used to make up the catalog.

The catalog, which contains both uv and earth-based data on some 5000 stars, will be placed on tape at the Na-

tional Space Science Data Center at NASA's Goddard Space Flight Center in early 1972. Tape copies will then be available. A printed version of the catalog based on all of the usable data (7778 pictures) is scheduled to be offered in the fall of 1972.

Support available for work and travel abroad

The National Science Foundation is offering foreign-currency awards for scientific research, science education and related activities in countries where costs will be payable in the currencies of Burma, Guinea, India, Morocco, Pakistan, Poland, Tunisia, the United Arab Republic or Yugoslavia. Support is available for collaborative research under the direction of co-principal investigators in the US and the host country, the appointment of a visiting American scientist to a foreign institution, maintenance and advancement of scientific activities in the countries of interest, research and training of American scientists and students in the host countries and international travel for meeting participation.

Space-science board urges outer-planet exploration

Exploration of the outer planets was given high priority in a report recently published by a study group of the Space Science Board of the National Academy of Sciences—National Research Council. The report, *Outer Planets Exploration 1972-1985*, calls exploration of the planets beyond Mars "one of the major objectives of space science in this decade." The group was made up of leading space scientists and chaired by Charles H. Townes.

The report offers suggestions for exploration of the outer planets according to various funding levels. Grand Tour missions for exploration of the outer planets can be most successfully accomplished with Thermoelectric Outer Planet Spacecraft, according to the report. The TOPS system is matched to the requirements of exploration beyond Saturn. The report recommends that TOPS-type spacecraft be used in a series of four launches in the late 1970's. Two of these should include entry probes to make measurements of planetary atmospheres.

For exploration of Jupiter and Saturn, modified Pioneer-type spacecraft will be adequate. The report asks for maintenance of a program of exploration of the two planets with these craft at a launch rate of about one every two years, whether or not funds are found for TOPS. The study group asked that at least two Pioneer-type spacecraft at-