

Eger V. Murphree, president of Esso Research and Engineering Company.

Kenneth S. Pitzer, dean of the College of Chemistry at the University of California.

J. C. Warner, president of Carnegie Institute of Technology.

Robert E. Wilson, former board chairman of Standard Oil Company of Indiana.

Eugene P. Wigner, professor of mathematics at Princeton University, who served as consultant to the committee.

## Lodge Offers Plan to UN Space Committee

*Speaking at the first meeting of the United Nations Committee on the Peaceful Uses of Outer Space, Henry Cabot Lodge, U.S. representative, urged that the members of the committee recognize the scope of the job before them and work together on it. In a speech that avoided controversial issues, Lodge summarized the benefits to be gained from space exploration and made a number of recommendations for the committee's consideration.*

*Five members of the 18-man committee were absent because of a boycott by the Soviet Union, Poland, and Czechoslovakia. The remaining members elected Koto Matsudaira of Japan chairman of the committee.*

*Excerpts from Lodge's address follow.*

Our task is to help to chart for the United Nations a course of cooperation among nations in the use of outer space for peace. . . .

Much of the necessary cooperation is being carried on by the Committee on Space Research of the International Council of Scientific Unions, which is also called COSPAR. This organization of scientists is continuing the cooperation begun during the International Geophysical Year. Its work is of the greatest value. But there must also be cooperation among governments. That is why we are here.

Now as to our plan of work, Mr. Chairman; the United States believes we can take as our point of departure paragraph 1 of the resolution by which the General Assembly last year created this committee and defined our task. That resolution asked us to report to the fourteenth session this fall on four main topics. I shall take up each of these in turn.

Topic A is: "The activities and resources of the United Nations, of its specialized agencies and of other international bodies relating to the peaceful uses of outer space." In our view this question can best be handled by the Secretariat with its extensive knowledge of international organizations. We there-

fore propose that the Secretary General be asked to report to this committee on Topic A at an early date.

Topic B is: "The area of international cooperation and programs in the peaceful uses of outer space which could appropriately be undertaken under United Nations auspices to the benefit of states irrespective of their economic or scientific development."

In the first instance this is a question for qualified scientists. We therefore propose that this committee establish a subcommittee to deal with Topic B and report on it to the full committee. This subcommittee should be open to each member of the committee wishing to take part. The United States intends to designate Dr. Hugh L. Dryden of our delegation to serve on this subcommittee.

I will pass over Topic C and return to it in a moment.

Topic D deals with legal questions. There are many possible international legal problems in the outer space field. Some of these may be remote or abstruse but others are of real practical importance and may arise soon.

To study them we propose that the committee appoint a second subcommittee of representatives versed in international law. It too should be open to each member of the committee wishing to take part. The United States intends to designate Mr. Loftus Becker of our delegation to represent us on this legal subcommittee. It should report to the full committee at an early date.

By following this plan of work the committee would have before it at an early date the report of the Secretary General on Topic A and the reports of the two working groups on Topics B and D. We believe that will be the best stage, Mr. Chairman, for the committee to consider the remaining Topic C—"future organizational arrangements."

It is axiomatic that no sound recommendations can be made on organization until the activities involved are clearly understood. This should be the case when the subcommittees and the Secretary General have made their reports. The full committee can then frame its report to the General Assembly covering all four topics. We hope that last phase can be finished by 31 July.

As a contribution to the work of this committee the United States has prepared a series of documents on the topics which were set forth in the General Assembly resolution and which I have just discussed. We are making these available to the Secretariat for the use of committee members if they so desire. We have also made available a brief, semitechnical publication on the nature of outer space and space science. . . .

## Britain Increases Study of Nuclear Energy in Medicine

Britain is launching a \$3-million program to explore the use of nuclear energy in medicine. The project will be undertaken at Sutton Downs in Surrey, where the Royal Marsden Hospital is to build a branch, the first in Britain devoted solely to this work. The unit will be part of a bigger organization studying the effects of radiation on man.

D. W. Smithers, professor of radiotherapy in the Institute of Cancer Research, has announced that more than \$1½ million of the initial cost of the scheme has already been allocated by the Ministry of Health, and \$560,000 has been offered by the governors of the Royal Marsden Hospital from endowment funds. Another \$700,000 is still needed for the installation of a 35-million-volt linear accelerator.

The hospital will be built with two main aims; first, to provide a radiation center that will make high-voltage treatment facilities available to a group of hospitals; and second, to study and develop the use of radioisotopes in medicine. This will include the treatment of patients with radioisotopes and instruction in the use of isotopes.

The British Atomic Energy Authority's establishment at Harwell is running a course on the fundamentals of the use of radioactive materials; at Sutton Downs it is hoped to have a course comparable with Harwell's, and in addition, a course on the practical application of isotopes in medicine. There will also be laboratories where visitors from other parts of Britain, and possibly overseas, can work on problems of radioactive isotopes.

## Ford Teacher Training Grants

The Ford Foundation has announced grants totaling \$9,161,210 for the first phase of a new effort to support improved training for teachers. Another series of grants may be announced later this year, but the size of these grants has not been determined and the recipients have not yet been selected. The awards will emphasize four trends: (i) extension of general and liberal education for future teachers; (ii) establishment of a direct relation between public-school systems and teacher-training colleges, comparable in many respects to the relation between medical schools and hospitals; (iii) development and application of new teaching and teacher-training techniques, including internships, teaching aides, and teams, and of such technological aids as television, film, and tape recording; and (iv) improved long-

range financing of teacher education, including payment of teacher-trainees by school systems before certification.

The institutions that are receiving grants are Barnard College, \$70,000; Brown University, \$1,047,000; University of Chicago, \$2,400,000; Claremont Graduate School, \$425,000; Duke University, \$294,210; George Peabody College for Teachers, \$600,000; Harvard University, \$2,800,000; Stanford University, \$900,000; and the University of Wisconsin, \$625,000.

Most of the new programs have been aided in their early stages by small grants from the foundation or from the Fund for the Advancement of Education—an independent organization established by the foundation and now being gradually consolidated with the foundation.

### Society for Metals

The new semicircular headquarters office building of the American Society for Metals is scheduled for completion in late summer. The structure is located 23 miles east of Cleveland, Ohio, in Russell Township, on a 100-acre site given to the society by the late William H. Eisenman, a founding member of the society and its national secretary for 40 years. The center is to be designated "Metals Park," with Novelty, Ohio, as its post office.

The building is to have three levels. It conforms to a 168° semicircle, with a

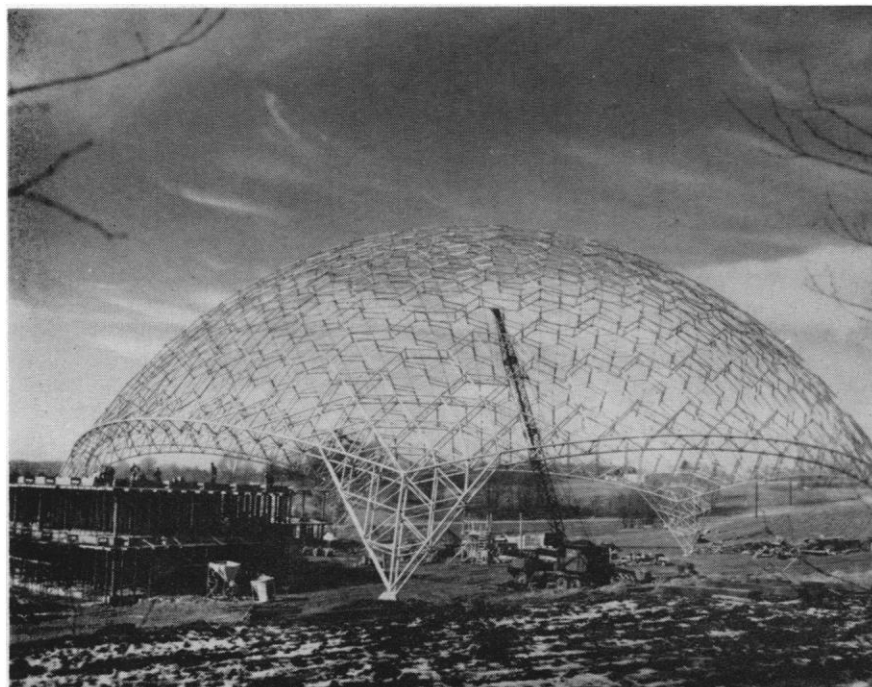
240-foot outer face and a 140-foot inner face. The structure will be 53 feet deep and contain approximately 50,000 square feet.

Reinforced concrete will comprise the principal building material, although the copper, brass, bronze, chrome, nickel, titanium, and zirconium, along with other metals, will also be used. For example, the door of the elevator, as well as the car itself, will be faced with copper having a specially ornamented surface.

A 240-foot sun shield along the perimeter of the western side of the structure (third level) will be made of stainless steel, an unusual application of the metal. The shield will be 15 feet high and so perforated as to allow a view of the countryside while insuring protection from the sun.

The geodesic dome, an open honeycomb of hexagons, rises 10 stories high. Its diameter is 250 feet. Made of aluminum tubing and tension rods, the "space lattice" contains more than 65,000 parts.

It is actually two domes in one, with 30 inches between the two. The tubing which comprises the dome is of two diameters; the base supports, pylons, and connecting trusses are 6 inches in diameter, while all other components are 4 inches in diameter. More than 5¼ miles of tubing has gone into the dome. An additional 7¾ miles of ¾-inch tension rods lace the dome structure to give it rigidity. Designer of the dome is R. Buckminster Fuller, president of Synergetics, Inc., of Raleigh, N.C.



The 10-story high geodesic "space lattice" rises above the semicircular office building of the American Society for Metals.

### Reactor Technology Courses

The second sessions of two specialized courses in reactor technology—one on supervision of nuclear reactor operations and the other on the evaluation of nuclear reactor hazards—for scientists from the United States and abroad will begin on 2 November at Oak Ridge National Laboratory, Oak Ridge, Tenn. Announcement of the establishment of the two courses, designed especially for students from friendly foreign nations, was made by the U. S. delegation at the second U.N. Conference on the Peaceful Uses of Atomic Energy in Geneva, Switzerland, last September. The first courses opened last February, and 26 students from 14 countries are receiving the specialized training.

Applications for either course must be received by 10 July. Ten students can be placed in the course on reactor supervision, which runs for 9 months ending 20 July 1960. The course on evaluation of reactor hazards is limited to 16 and runs for 12 months to 29 October 1960. Foreign applicants must apply through their embassies or legations. Citizens of the United States must apply to the Atomic Energy Commission's Division of International Affairs, Washington 25, D.C.

### Goddard Space Flight Center

The National Aeronautics and Space Administration has announced that the government's space projects center at Greenbelt, Md., will be named the Goddard Space Flight Center in commemoration of Robert H. Goddard, American pioneer in rocket research. The center, which is under the over-all guidance of the director of space flight development at NASA headquarters, will perform basic space research and will be responsible for the development of satellites, space probes and vehicles, tracking, communications, and data-reduction systems. In addition, the facility will eventually be a command control center for NASA space-flight operations.

The organization of NASA's new space center includes a director, not yet appointed; three major research and development groups, each headed by an assistant director; and business administration and technical services departments.

John W. Townsend, Jr., formerly chief of NASA's space sciences division, has been appointed assistant director for space science and satellite applications. John T. Mengel, former head of the space tracking systems branch in the Vanguard division, has been named assistant director for tracking and data