

plans to select a site this year, so that final design funds may be included in the fiscal 1967 budget.

Finally, the Academy last week released a summary of the final report on a study conducted last summer on "Biology and the Exploration of Mars." The study, conducted by a working group of the Academy's Space Science Board, concluded that, "given all the evidence presently available, we believe it entirely reasonable that Mars is inhabited with living organisms and that life independently originated there." It recommended a "large orbiting mission" to study Mars by 1971, and the first instrument landing mission no later than 1973, and by 1971 if possible. The summary of the report put particular emphasis on the development of sterilization techniques to avoid contamination of the Martian surface, and stated, "We believe that many of our non-biologist colleagues have still not fully grasped either the magnitude or the fundamental importance of this issue." The study group was chaired by Colin Pittendrigh, of Princeton, and co-chaired by Joshua Lederberg, of Stanford.—D.S.G.

State Department: Rank, Authority of Science Office Is Emphasized

The State Department last week took steps to increase the attractiveness of its top science position, a job that has been vacant since last fall.

Henceforth, it was announced, the director of the science office will have "rank and authority" equivalent to that of an Assistant Secretary of State. He won't actually have that title, however, since the number of assistant secretaries is limited by Congress to 12, and the Department apparently doesn't want to go through the process of seeking an increase. At present, some seven or eight State officials hold the rank without the title, which is third highest in the Department hierarchy. Previously, it was supposed to be understood that the science director was equivalent to an assistant secretary, but this never was explicitly stated, an omission that is said to have caused some problems in the carefully ranked Department. The Department also announced that the name of the office is changed from International Scientific Affairs to International Scientific and Technological Affairs. The last director, Ragnar Rollefson, a physicist, returned to the Uni-

versity of Wisconsin in September after serving for 2 years. The position pays \$26,000 a year.

The office operates a science attaché program at many diplomatic posts and serves as the Department's adviser on scientific and technical matters affecting foreign policy. The acting director of the office is Herman Pollack, a career officer with long experience in administration, but no scientific training.

—D.S.G.

Summer: The "Climate" Is Changed for University Scientists and the Federal Government Did It

In the spring the scientist's fancy, like anybody else's, turns to thoughts of what he'll be doing when summer comes. And it's a safe generalization that most scientists will spend their summers rather differently from the way they would have a generation ago.

In the old days (prewar), when the long vacation began the geologists headed for the hills, the oceanographers went to sea, the marine biologists went collecting at the seashore, and the anthropologists set out looking for primitives. And they still do. But for most academic scientists, the end of the school year in the depressed 1930's meant teaching summer school for money or doing research in a semi-deserted lab and probably washing one's own glassware.

The big change in summer occupations for scientists, like most recent big changes in science, is traceable to the arrival on the scene of the federal government and federal funds.

The competent scientist now has a veritable smorgasbord of summer activities to choose from—travel, domestic or foreign, to do research or to teach or to attend a rich variety of meetings, conferences, seminars, or symposiums.

The traveling professor is a familiar figure year-round as he flies off to fill consulting commitments to industry or government or makes the academic rounds. But it is in the summer that scientists, like businessmen, are likeliest to combine pleasure with business by taking wives and children along and sometimes making extended side trips.

How wide the horizons can be is indicated by a recent notice to Americans that a group was being made up to fly from Amsterdam to a physiological sciences congress in Tokyo, with a 3-day

stopover in Moscow and a 3-day side trip to Tashkent, Bokhara, and Samarkand.

Most opportunities are not quite so exotic, but scientific societies now generally take into account the extracurricular interests of their members in planning for meetings. The American Society for Microbiology, for example, in exploring the most desirable and least expensive way for its members to attend the 9th International Congress for Microbiology, to be held in Moscow in July 1966, is asking for applicants for a variety of charter flight arrangements. There are several options: a direct flight to Moscow with an immediate return after the conference; a return flight from Paris 2 weeks after the conference closes; and a 2-week conducted tour with a choice of northern, central, or southern European itineraries.

While he pays for the excursions himself, there is no question that, depending on his standing and his endurance, the American scientist has opportunities for travel not open to people in most other occupations. In general, it is the most distinguished who are the best traveled.

Travel within the United States has also increased considerably, and a number of summer-only institutions have developed. Two influential models for these, both established before the war, are the Marine Biological Laboratory at Woods Hole and the Gordon Research Conferences.

The conferences, named for Professor Neil Gordon, were started in 1931 at Johns Hopkins, where Gordon taught, and were later moved to Gibson Island in Chesapeake Bay. After World War II, for a number of reasons—notably the heat and humidity and the increasing intrusion of vacationers—the conferences were moved to the cooler and more austere latitudes of the New England academies.

The combination of plain living and fancy thinking has proved a durable attraction, and the pattern of 5 days of morning and evening sessions with the afternoons left free has been maintained. Attendance is limited to about 100, and the rule that nothing said at the conference shall be for attribution permits researchers working within a specialty to engage in a kind of give-and-take possible almost nowhere else.

The Gordon blend of informality and intensive exploration of a subject has proved so popular that a winter version