

Congress: A Quiet Year

Congress convened this week in Washington, facing, on the science front at least, a "quiet year." With the budget pinched by war in Vietnam, and a plethora of holdover problems, little that is new expected to develop.

Perhaps the biggest decision facing the Congress in research and technology will be the possible building of a \$20 billion antimissile network with its attendant fallout shelters, costing as much. It will, of course, be made by non-scientists and nontechnicians, the men on Capitol Hill who control the money.

Democratic Leader Mike Mansfield of Montana has issued his annual call for the Congress to take a long look at the programs already in effect, rather than moving into new areas. It appears that this year the call may be answered. Neither Senate nor House staff members, nor the Budget Bureau look for new programs of any large scale.

National Aeronautics and Space Administration officials have nothing new in the way of post-Apollo plans—what

they see coming is the fulfillment of projects already underway.

"I would expect no trouble with the Apollo budget," one Senate source declared. "That's an ongoing program that we don't want to stop or slow down; it would be too expensive. The rest of the NASA budget may get a more careful look."

Also due for a careful look is the planning money for the 200 billion electron vote particle accelerator, which has gained some political muscle by the announcement of its proposed location in Weston, Ill. The 26-member Illinois delegation can be expected to fight for at least the planning money.

In a Congress expected to be more consolidating than originating, continued emphasis is expected on the effects of man on his environment, heavily discussed both on the Hill and in the councils of the American Association for the Advancement of Science during last month's sessions.

The Senate Aeronautics and Space

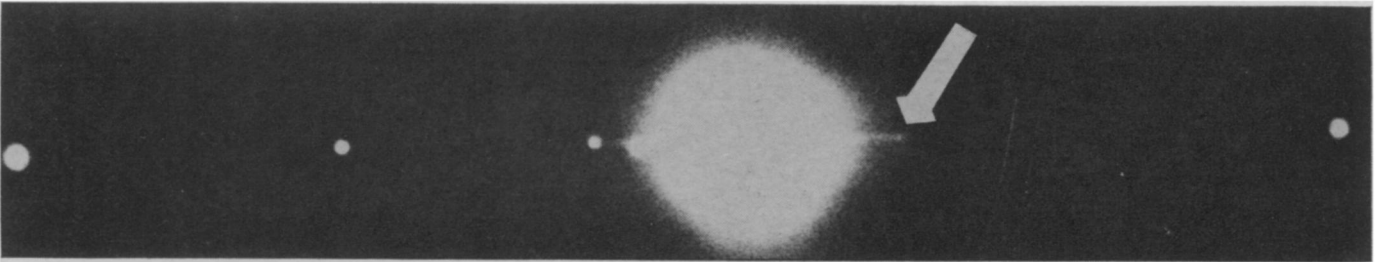
Sciences Committee will first hold hearings on the state of current research and development in aircraft.

Also on the table are the age-old questions of conversion to the metric system, possible re-organization of the patent system, the possible re-organization of the National Science Foundation, the geographic distribution of Federal research funds and a possible re-organization of the Public Health Service.

The Senate committee may take a look at the set-up of the President's Office of Science and Technology. This is a sensitive area politically; Congress can be expected to walk gently when considering the internal organization of the executive branch.

Senator Mansfield's long look will peer especially at problems in the social sciences and the tangled skein of programs designed to help the crowded cities. Housing, education, transportation, welfare, crime—all areas that Congress has wrestled with in the past without solving—will come up again.

PLANETARY ASTRONOMY



U.S. Naval Observatory

Circling near Saturn, the unnamed tenth moon, arrow, is visible as are, from left, Titan, Dione, Enceladus, and Rhea.

Tenth Moon of Saturn

The first natural satellite in the solar system to be discovered since artificial satellites were launched has been found circling Saturn. Dr. Audouin Dollfus of the Observatory of Physical Astronomy at Meudon, France, spotted Saturn's tenth satellite on three photographs taken in mid-December when the planet's rings were seen edge-on from earth.

The discovery was confirmed by Richard L. Walker of the U.S. Naval Observatory's Flagstaff Station when, after learning that Dr. Dollfus had found the satellite, he re-examined 24 photographs made of Saturn on Dec. 18. Four of them clearly showed a moving object.

The satellite lies very close to the edge of Saturn's rings, approximately

158,000 kilometers or some 95,000 miles from the planet. Its brightness is magnitude 14, too faint to be seen except through very large telescopes. The tenth satellite circles Saturn every 18 hours, according to preliminary estimates.

Dr. Dollfus, through the Smithsonian Astrophysical Observatory in Cambridge, Mass., has asked astronomers around the world to check any photographs they took of Saturn in mid-December to see if they show the new satellite, which has not yet been named. Satellites of other planets in the solar system are traditionally named after mythological figures.

In 1610 Galileo looked at Saturn with his then newly invented telescope and saw what seemed to be two moons,

one on each side of the planet.

The rings, recently estimated to be less than one foot thick, lie exactly in the plane of Saturn's equator, which is inclined to the plane of the planet's orbit at an angle of 27 degrees. The plane of the rings keeps a fixed direction in space parallel to itself. There are two opposite positions in Saturn's orbit where the rings are edgewise to the sun. Since Saturn's period of revolution around the sun is about 30 years, the rings are edgewise to earth about every 15 years.

Although the ring-plane passes through the sun only once at each equinox, which last occurred on June 15, 1966, the earth can cross the ring-plane three times within about one year, as it did in 1966 on April 2, Oct. 29 and Dec. 17.

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