abruptly with a massive infection in June this year. Nevertheless, in March, the United States Forest Service and the States of Washington and Oregon petitioned the EPA to allow the use of DDT on the outbreak this spring. They wanted to use 200,000 pounds of the pesticide on about 500,000 acres of forests, to prevent third-year defoliation, and to make sure that the infestation did not spread any further.

The EPA sent a team of investigators to take a look at the area and they returned with the finding that the egg masses were contaminated with virus—albeit at a fairly low level—and their report said that there was every expectation that the population would collapse without the use of DDT. They did, however, allow the experimental use of four chemical alternatives to DDT—Zectran, Dylox, Sevin-4-oil, and Bioethanomethrin—and the testing of a polyhedrosis virus and the bacterium *Bacillus thuringiensis* against the caterpillars.

The virus infection has not worked. The moth spread to an area about twice that of the original infestation. There seems to be no explanation of why the virus failed to do its work, except for the possibility that it may not have been present in sufficiently high density to wipe out the population. As for the insecticides, all were moderately effective but not as good at DDT, and the microbial agents proved to be promising but they will not be available in sufficient quantities for use in a large outbreak.

An extensive survey is now being undertaken to examine the egg masses that have just been laid, to try to predict the course of the infestation next year. Some of the eggs will be hatched in laboratories next March, and that should give some indication of the chances of virus infection wiping the insects out next spring. If it seems that the population will collapse from virus infection, the EPA could again deny the use of DDT. But the repercussions of another wrong prediction are obvious. Alternatively, the agency could agree to the use of DDT to prevent final-year defoliation of the infested trees, but that would lay it open to charges from environmentalists that DDT was used in a situation that did not warrant it. Moreover, there is a fear that if the DDT ban is lifted in this case, the floodgates would be opened for special pleas in countless other cases.

The EPA has, in fact, already granted exemption from the DDT ban this year for the spraying of pea crops in Washington to kill pea leaf weevil. That decision was taken because no other pesticide was available, and it was used in a region where there is little water runoff or likelihood of damage to wildlife. Although the exemption from the ban has not sparked off a rash of other formal requests to use DDT, a parade of witnesses before the House Agriculture Committee last week told of numerous cases in which they would love to break out the DDT spray.

The hearings themselves were concerned with a bill introduced by Congressman Mike McCormack, whose constituents in the state of Washington are up in arms about the EPA's handling of the matter. The bill would essentially force the administrator of the EPA to approve use of DDT whenever the Secretary of Agriculture requests it. In other words, it would strip the EPA of its control over DDT. Although the committee members who bothered to attend the hearings last week are in strong sympathy with the legislation—it would, after all, give the Agriculture Department, over which they are supposed to preside, more power—its chances of survival if it ever reaches the floor of the House are considered slim. It is unlikely that many congressmen would be willing to put such a sensitive matter back in the hands of a department so closely allied with the industry concerned.

If last week's hearings demonstrated one thing, it was that the emotion that surrounded the DDT debate has by no means diminished since the pesticide was banned. The committee room echoed to all the familiar arguments, emotive phrases and accusations of scientific malpractice that characterised the extensive public hearings on the matter last year. At least the committee staff showed what they thought of the proceedings. They spent most of the time reading magazines and newspapers while witnesses on both sides of the debate rehashed their arguments and congressmen asked a spate of naive questions.

TECHNOLOGY ASSESSMENT

Some Cash at Last

by our Washington Correspondent

THE Office of Technology Assessment (OTA) is in business at last, more than a year after Congress decided to set it up. The office, which will conduct analyses and offer advice to the legislative branch of the federal government on issues involving science and technology, has been given $2 million to spend in the 8 months that now remain in the 1974 fiscal year. The money, which was contained in the Legislative Appropriations Bill, was delayed by a fight over an entirely unrelated matter (see *Nature*, **245**, 284; 1973), but the holdup prevented the OTA from hiring staff, appointing a director or doing any work—in other words, the office existed in name only.

Although $2 million is a good deal less than the $5 million that the OTA's backers were requesting for its first year of operation, the funds will allow a start to be made soon on a few specific problems, which will be tackled by *ad hoc* panels. The first move, however, will be for the OTA Board, which consists of six senators and six congressmen, and which is chaired by Senator Edward M. Kennedy, to appoint a full-time director for the office. Emilio Q. Daddario, a former congressman who was largely responsible for developing the legislation that led to the setting up of OTA, is expected to get the job early next month.

MARINER 10

Go for Take-off

by our Cosmology Correspondent

THE first spacecraft to use the gravity of one planet to help it on its way to another is due for launch on or about November 3. Mariner 10 will swing past Venus and on to Mercury, where the first encounter will take place around March 29, 1974. The spacecraft will, if all goes well, remain in a circum-solar orbit so that further encounters with Mercury will take place on September 22 and at roughly six-monthly intervals thereafter. The spacecraft should still be functioning for the second encounter, at least.

On the face of things the Venus observations form the more interesting part of the mission, since enough is now known about Venus to hint at a complex planet with slow retrograde spin, extensive cratering, and an active atmosphere. But so little is known about Mercury that any information from Mariner 10 will be invaluable. And at least Mercury is not obscured by cloud; two television cameras equipped with 150-cm Cassegrain telescopes will produce resolution of 1.5 km for the full coverage of the planet and 100 m for selected areas.

Apart from the television cameras Mariner 10 will carry six scientific experiments, including an infrared radiometer, an extreme ultraviolet experiment, a 'radio science' experiment, a magnetometer and two experiments to measure the solar wind (particularly inside the orbit of Venus) and the galactic cosmic radiation. The infrared experiments will, of course, provide estimates of the surface temperatures of both planets. On Mercury large temperature variations are to be expected, for a thin atmosphere (if there is one at all, a matter which should be settled by the ultraviolet measurements) will allow extreme heating of the side exposed to the Sun. And the relatively slow rate of rotation (once every 58.6 days) means that the night side can lose large quantities of heat by radiation.