mately, earth resources satellite systems will make use of a number of other devices, such as side-looking radar and thermal-infrared and passive microwave sensors.

And if the R & D work now in progress lives up to its promise, those who interpret the data produced by ERTS sensors will be able to identify the spectral signatures or "fingerprints" of a wide variety of soils, plants, rocks, and the like. As ERTS specialists point out, such fingerprint reading is possible because every object on the earth's surface—and every feature of the terrain—reflects, absorbs, or emits electromagnetic energy at distinctive wavelengths. Moreover, the fingerprint of a tree or plant varies according to whether the plant is healthy or sick, and this should allow earth resources satellites to detect plant maladies at an early stage, when remedial action may still be possible.

Such is his belief in the promise of ERTS that Congressman Karth, as a member of the Science and Astronautics Committtе's subcommittee on NASA oversight, recently took the trouble to prepare a report* criticizing NASA for having failed to give ERTS the priority he felt it deserved. And, even now, he would have NASA accelerate the program and try for an initial ERTS launch earlier than the late-1971 launch date scheduled.

For a couple of years Karth has been goading NASA about this project, and some of ERTS's potential "user agencies," particularly the Department of the Interior, have been doing so as well. In fact, Interior, pressing to get an earth resources satellite program going back in 1966, executed a remarkably bold bureaucratic maneuver, one all the more suprising in that it seems to have been led by perhaps the government's most staid and dignified scientific agency, the U.S. Geological Survey (USGS).

NASA, using aircraft as the testing platform, had begun developing remote-sensing devices for earth resources studies in 1964. The Department of Agriculture, the Naval Oceanographic Office, and USGS participated in this work. NASA, partly at USGS's urging, included a project to develop a small earth resources satellite in its planning prospectus. In 1966, however, this project was omitted from a new NASA

* *Earth Resources Satellite System.* A limited number of copies available, at no charge, from the House Committee on Science and Astronautics, U.S. House of Representatives, Washington, D.C. 20515.

Science Policy Meeting at M.I.T.

The most important discussions concerning U.S. science policy are usually held behind closed doors. On 7 February, an interesting private meeting about the character of science organization in the federal government was held at M.I.T. The discussion, which began over lunch and lasted throughout the afternoon, brought together many of those who are most knowledgeable about science and government in the United States.

All former Presidential science advisers—Donald F. Hornig, Jerome B. Wiesner, George B. Kistiakowsky, and James R. Killian—were present, as well as three of the congressmen important to the welfare of science—George P. Miller (D–Calif.), chairman of the House Science and Astronautics Committee; Emilio Q. Daddario (D–Conn.), the active chairman of the group's science subcommittee; and Charles A. Mosher (R–Ohio), the second ranking Republican on the House Committee. Other participants included the members of the Committee's eight-man Research Management Advisory Panel*; the meeting was another of the Miller committee's occasional gatherings with the Research Panel. Although such sessions are sometimes held outside Washington, the 7 February get-together was the first held away from the Capital in the past 2 years.

The M.I.T. meeting was an informal affair and was not designed to produce a formal record. However, from interviews with several of the participants, especially participants from Congress, it can be concluded that the following themes were among those in the discussion:

► Although there have been several noteworthy proposals, recently, to create an all-encompassing Federal Department of Science and Technology at the Cabinet level, this idea seems not to have found favor at the meeting. "The more I think about it, the more I question a Department of Science," chairman Miller said in an interview. Kistiakowsky dismisses the idea of such a department as "totally unrealistic"; Killian is "unconvinced." Mosher said, "I don't find any sentiment for a Department of Science," but stated that he would not rule out establishment of a major new scientific agency which would include the National Science Foundation and the recently suggested National Oceanic and Atmospheric Agency (*Science*, 17 January).

► Not surprisingly, several of the participants interviewed have concluded that the President's science adviser occupies a central and increasingly important role and should not become the spokesman for any one government agency.

► Even though a department of science and technology is not especially needed, the federal government should do more to support science and the universities and should find ways to encourage more people to enter scientific careers.

The participants were pleased at the amount accomplished in their discussion. Kistiakowsky called it "a very informative, very useful meeting." Harvard's Don Price, a leading scholar of government and science, said that "the discussion made a lot more sense than most I have attended on the subject." Mosher commented that "it was sort of a historic thing" to have all four former Presidential science advisers in a discussion about the government and science and that the meeting could have "historic consequences." Mosher noted that federal science organization may be the subject of hearings held by the House committee this year.—BRYCE NELSON

* Members of the Research Management Advisory Panel of the House Committee on Science and Astronautics are as follows: James B. Fisk, president, Bell Laboratories; James M. Gavin, chairman, Arthur D. Little, Inc.; Samuel Lenher, vice president, E. I. du Pont de Nemours & Company; Wilfred J. McNeil, president, Grace Line; Don Price, dean of the John F. Kennedy School of Government, Harvard; C. Guy Suits, director of research, General Electric Company (retired); and Jerome B. Wiesner, provost, M.I.T.; Michael Michaelis, director of Arthur D. Little's Washington office, serves as executive director of the panel.