and his two predecessors, James R. Killian and George B. Kistiakowsky, were from that area, a pattern that has nettled some people in other regions), but continues the precedent of the White House science adviser's serving as OST director. In the former capacity he is a confidential adviser to the President, immune, by custom, from congressional inquiry; in the latter, he is summonable by Congress.

Hornig is taking the post on a 1-year leave of absence from Princeton. A university spokesman said there is no doubt that the leave would be extended upon request, but if the service of Hornig's predecessors is any indication, it is unlikely that he will make the job a long-term affair. Both Kennedy and Eisenhower have sought the sort of men whose hearts seem to remain on campus or in the laboratory, and for better or for worse, the top science post in government seems fated for relatively short-term occupancies.

—D. S. GREENBERG

Washington Ramble: News in Brief on Investigations, Accelerators, Anger in NSF, and Other Matters

Over the past year, the study, survey, and investigation of science and government has probably become Washington's leading growth industry. During the past few weeks, a new study has been disclosed, this one dealing with NIH, and last week a recently authorized investigation announced its first public hearings. The NIH study, under the auspices of the White House Office of Science and Technology, will be headed by Dean E. Wooldridge, a physicist and highly successful managerial leader in the aerospace and electronic fields, who was co-founder of the Ramo Wooldridge Corporation, which has since evolved into Thompson Ramo Wooldridge.

Wooldridge brings two valuable qualifications to the task: he is well known and respected in science and government circles; and, by the nature of his career, he is immune to the old congressional charge that NIH depends upon creatures of NIH to evaluate its own operations.

The Wooldridge study, which is expected to take 6 months, comes at a time when NIH is increasingly the target of congressional ire. Since ignoring Congress has conspicuously failed in the past, and the limited measures adopted on accountability of researchers' funds seem to leave many congressmen less than fully satisfied, political realism calls for a high-level study aimed at defending the good, and quickly setting straight whatever may be amiss. The administration's objective, presumably, is to fill this order in a fashion consistent with NIH's desire to keep research unhampered by excessive paper work, while simultaneously responding to the legitimate concerns of Congress. It is probably impossible to accomplish this to the satisfaction of all parties, but an intelligently directed study is certainly preferable to the condition of drift that now prevails.

Meanwhile, a previously ordered investigation, that of Representative Carl Elliott's House Select Committee on Government Research, has announced that its first hearings will begin on 18 November and will continue for 10 days. In conjunction with the announcement, the committee issued a witness list, running to 70 names, including many who comprise a who's who of American science and science administration but also a few others whose appearance might reasonably be considered a marginal utility for the purpose of investigating federal support of research and development. These include Secretary of State Dean Rusk, AFL-CIO president George Meany, and Edwin P. Neilan, president of the U.S. Chamber of Commerce. The witnesses have been told that if they are unable to appear they may send a representative or submit a statement.

Elliott's committee, which has been given $553,000 to accomplish its task, has so far hired about a half dozen professional staff members, but it is yet to acquire its first scientific or technical personnel. A search for such assistance is under way.

While all this is going on, Representative L. H. Fountain's subcommittee, which has been the bugbear of NIH for several years, is showing a few signs of returning to action. Nothing has been definitely scheduled, but among other things, the committee is bestowing a lot of interest on NIH's fellowship and traineeship policies and practices, and there is a chance that hearings may be held before the end of the year.

To the question, "Why all this interest in research?" the answer, briefly put, is that science has become a terribly expensive item in the federal budget and Congress likes to feel that it is in control when it is appropriating massive sums for any purposes. Often, of course, it is not, as in the case of defense policy, a matter on which the administration manages to exercise dominant control, despite the noises that regularly emanate from Capitol Hill. But with research and development, which are usually lumped together as one item in congressional thinking, now costing close to $15 billion a year, Congress wants to feel that it is getting its money worth, and investigation is the first step toward obtaining such assurance.

On another front, the National Science Foundation, which is having a hard time convincing Congress that it *is* getting its money's worth, was highly agitated last week to learn that a leading scientific supply firm has been distributing promotional literature offering NSF applicants a copy of a "successful NSF [grant] application." The firm, the CENCO division of the Central Scientific Company, of Chicago, has responded by temporarily discontinuing the offer, but according to a company announcement, "the delay will be a short one." However, NSF feels that it had better be permanent.

CENCO, of course, is not the first commercial organization to counsel its customers on the in's and out's of obtaining access to the federal treasury, but it apparently is the first to come to the attention of NSF's new leadership. And they weren't very happy about it. As one NSF official put it, "The competitive system [for grants] should not be contaminated by professional proposal writing." He added that this is going to contribute to Congress' impression that science is getting commercialized. "It's no secret," he went on, "that many universities have professional proposal writing operations, but we feel it's going a bit far to offer successful applications—which are not public property—for commercial purposes."

CENCO firmly disagrees about the property interpretation, arguing that since public funds are involved, successful grant applications *are* public property, a position that is supported by standing congressional sentiment for generally full disclosure on public expenditure. NSF goes along with this theory for some distance, pointing out that it has a policy of supplying copies of successful applications to qualified investigators, but it says it draws the line at commercial exploitation.

CENCO also argues that it is doing both NSF and the scientific community a service through its offer, "since," it claims, "NSF hasn't done a good job

of explaining its procedures for applying for a grant." To which NSF gives an answer that can be summed up as "Nuts."

In any case, CENCO contends that the scientific community likes the offer. It hasn't supplied figures on the total mailing, but it apparently was a big one, and, according to CENCO, 39 per cent of the respondents checked the appropriate box. Incidentally, CENCO says it obtained the applications, without charge, from scientists of various disciplines, in big and small institutions, who in furnishing them understood the purpose for which they would be used.

While most segments of the scientific community can legitimately feel that developments in Washington are grounds for concern, the nation's radio astronomers have grounds for celebraing an impressive victory on a politically difficult issue—TV frequency allocation. At stake was the future of channel 37 (608–614 Mcy), which was wanted both by the radio astronomers and by a Paterson, N.J., broadcaster. The astronomers put together a forceful campaign, bombarding the Federal Communications Commission with some 150 letters and taking their case to the White House and Congress. Initially, the FCC said it was in a bind and was unable to provide Paterson with a substitute for channel 37, but it has now issued a formal order, reserving 37 for radio astronomy for 10 years, with the understanding that Paterson will be taken care of in some other way. The FCC majority opinion stated, "In view of the united interest of the scientific community in such a [frequency] reservation, and the vast potential offered by radio astronomy for adding significantly to our knowledge of the universe, we do not believe it to be in the public interest to close the door on, or even jeopardize, whatever benefits may be derived from such operations. . . ."

The channel 37 decision was adopted by a 3 to 2 vote, over a dissent which raised a variety of points. These included the curious observation that "some circles" seem to be arguing that the stuff now being produced on TV is of such poor quality that it surely cannot be preferred to the potential fruits of radio astronomy. The dissent, written by Commissioner Robert E. Lee and joined in by Commissioner Kenneth A. Cox, offered the view that "if science cares to perpetuate itself and make itself attractive to coming generations, it will see to it that the use to which television is put is not wasteful, but rather contributory to an enlightenment of the public."

Commissioner Lee, in response to a reporter's question, said it was the improvement of TV programming that he has in mind, and that he felt the scientific community should take it upon itself to help accomplish this result. Which would seem to be a very big order for a community that seems to be fully occupied taking care of itself, let alone taking care of TV.

Finally, as the dealine approaches for the administration to make a decision on the proposed MURA accelerator (*Science,* 11 October), the Ramsey Panel is being recalled, within the next few weeks, for another look at the issue. The panel, headed by Norman F. Ramsey of Harvard, left a certain amount of fuzz around the question of whether the MURA proposal should be accepted, and now that a considerable number of midwestern congressmen are ready to make MURA their Alamo, the administration wants its scientific advisers to take another look at the matter.—D. S. G.

Tobacco: Activity Masks Unrest In Industry as Government Smoking Study is Prepared for Release

"What do these statements have in common," asks a paper reprinted by the tobacco industry from the June 1963 issue of *California Medicine:* "Scrofula is cured 'by the laying on of royal hands'; . . . A good treatment for tuberculosis is horseback riding; . . . Gout is manifestly an affliction of the nervous system."

"Answer," the paper continues: "They were all believed correct by leading members of the medical profession at one time, but were later proved to be false. To this list," it goes on, "may be added the statement that cigarette smoking causes lung cancer."

Taking the riddles further on our own, one might ask: What is the difference between the cancer-tobacco link and the yellow fever-mosquito link? The main difference, it appears, is that the mosquitoes did not organize on their own behalf. The tobacco industry is making no such mistake: organization may not save tobacco from science, but it will not be for want of trying.

Since 1953 five of the six major tobacco companies have jointly supported the Tobacco Industry Research Committee, which finances independent research on tobacco-health questions and widely publicizes the results. Ten years and $5.65 million of research later, the position of the TIRC is essentially what it was in the beginning: "the causes of lung cancer are complex."

"We are not satisfied to let the problem rest with statistical reports suggesting that heavy smoking increases the risk of cancer of the lung," reported TIRC's scientific advisory board in 1960. "We are interested also in knowing why the overwhelming majority of heavy smokers do not contract the disease despite their smoking. We are also vitally interested in the meaning of the results, derived from the same data, that only a small fraction of the reported excess deaths in the heavy smoking group is attributable to cancer of the lung." Put another way, this seems like saying of the relationship between speeding and automobile accidents, that some people drive fast and never have accidents, and that fatal accidents occur in other circumstances. TIRC research, according to Michael Shimkin, a researcher formerly with the National Cancer Institute and now at Temple University, is "carefully chosen to avoid the major issues, and though it is often fruitful and interesting, and supervised by scientists of great integrity, it is almost never relevant to the immediate public health issue at stake in the tobacco controversy." The TIRC and some of its main antagonists, such as the American Cancer Society, are in basic agreement that lung cancer is a long-term response to a variety of causes; but the ACS is a good deal more convinced by the evidence that the major causative agent is tobacco.

The ACS is currently presiding over a major defection from tobacco's ranks, a new campaign called "Athletes Against Cancer," which features posters and radio spot announcement directed primarily to teenagers. "Think it over," advises Whitey Ford, Yankee pitcher who appeared in ads for Camels from 1953 to 1962. "Is smoking worth it?" "I don't smoke," says Bob Mathias, Olympic decathlon champion and chairman of the ACS campaign, beaming, the very picture of virility, from a photograph. "I don't think anyone who wants to be an athlete should smoke."

Another minor revolt occurred in October 1962 when the Air Force terminated free distribution of cigarettes in AF hospitals, clinics, and flight lunches. And earlier this fall, the industry itself announced voluntary