

Illinois, which is expected to be brought to court shortly. Durovic, who was hospitalized for a time during the trial, was reported this week to have gone to Paris to be treated for a kidney ailment, and both brothers are now facing charges by the Internal Revenue Service that they each owe the government several hundred thousand dollars in back taxes. Outside the immediate camp, Krebiozen patients, always an effective lobby, are reported to be trying to interest some third party, such as organized labor, in the possibility of sponsoring a test, and the movement of constituents is also sending some ripples through Congress. But the mood is strangely desultory. Can it be, after all these years, that the Krebiozen case will end not in fanfare, but in a fizzle?

—ELINOR LANGER

Albert Thomas: Late Congressman Who Supervised NSF Budget Had Witty Views on Science and Politics

In the political councils that deal with basic research, no individual during the past 15 years was more influential than Albert Thomas, the Texas congressman who died last month. As chairman of the Independent Offices Appropriations subcommittee, Thomas conducted virtually a one-man reign over the budget of the National Science Foundation, from the creation of the Foundation in 1950 through the approval of the budget now in effect. Thomas came slowly to the conviction that the federal government should assume the responsibility for supporting basic research. At times he could be ruthless with the NSF budget and the officials who appeared before him in defense of it; he could also be quite paternalistic in advising the NSF to steer away from what he considered to be political pitfalls. But in either case he was one of the saltiest and wittiest commentators on relations between science and government. Following are some Thomas remarks drawn from the hearings he conducted annually on the NSF budget and a few words on the situations that elicited them.

In 1955, NSF sought funds for what was described as a study "to find out whether it is worthwhile to pursue research in a particular area and to what extent." Said Thomas:

"You know what the answer is before you make the study. . . . The upshot of your report is going to be

that it is worth the money and that there should be more spent. So why not let's just take the cost of that economic report and spend it on basic research. . . ."

That same year NSF defended its programs on the grounds that they were reviewed by scientists who functioned as "expert witnesses"; to this Thomas replied:

"I have never heard of anyone calling in an expert witness . . . unless he was to testify favorably to those calling him."

Thomas regularly put his witnesses through the mill, but occasionally he would relent and offer a bit of friendly advice, as he did a few months later when funds were being sought for the International Geophysical Year.

"We may argue a little bit with you . . . but if you argue back, why, we might soften up a little bit. . . ."

However, like any congressman, Thomas did not take kindly to what he considered to be usurpation of his prerogatives. When the White House announced the IGY prior to the appropriation of \$28 million that was needed, Thomas said to NSF Director Alan T. Waterman:

"Now I am going to jump on you in a nice way. . . . Doctor, we were just wondering if the Congress had anything to do with this program. If it was all settled at the White House, we were wondering why you came over here . . . it is all over with, all except the little item of \$28 million; is that what you want?"

Thomas seemed to have a particularly warm relationship with Detlev Bronk, who would appear before him in his capacity of chairman of the National Science Board, the top advisory board of NSF. Bronk, one of the leading multiple-hat-wearers in the scientific community, drew this introduction from Thomas in 1958:

"President of the Rockefeller Institute for Medical Research, and president of about 10 other organizations."

Two years later, when Lloyd Berkner, one of the organizers of the IGY, appeared before the committee, Thomas greeted him with great praise, and then added:

"The last time you were here, you walked out with \$20 million for a new laboratory."



Albert Thomas

The annual appearance before Thomas was never a pleasurable experience for NSF officials, a fact of which Thomas was clearly aware, for in 1960 he said, as Waterman was about to explain the budget:

" . . . our able and sturdy friend, Dr. Waterman . . . you take a lot of punishment, but you are able to roll it off."

Thomas regularly cautioned NSF on the perils of rapid growth and the risk of political embarrassment in underestimating the ultimate cost of big projects. In connection with the Green Bank Radio Astronomy Observatory, where the costs eventually were far in excess of the estimates, he warned NSF officials to watch their pennies, and added:

"I am talking sense to you, whether you agree or disagree."

In 1961, when Thomas asked an NSF official about the duration of the Foundation's program for computers, the answer was, "We think this is with us for a long time." Replied Thomas:

"Oh, doctor, you give us such unexpected answers."

When NSF officials cited letters showing that the scientific community was desperately in need of federal support, Thomas referred them to the budgetary concerns of his constituents. To Waterman in 1962:

"Read some of our mail, doctor."

In support of the Antarctic research program, witnesses told Thomas of the research effort there, including wind velocity measurements. Replied Thomas:

"We have been measuring the wind velocity for seven years. We should know how fast the wind will blow."

Thomas considered himself to be the principal judge of the NSF budget and, in 1963, was disturbed to find that the White House science office, under Jerome Wiesner, was playing a larger role in developing the budget. Said Thomas, of Wiesner:

"I thought I saw his fine hand in at least two important aspects of this budget."

Thomas relentlessly badgered NSF to spread its funds throughout the country. Cal Tech was his bête noire

on the subject of equitable distribution, and his references to its seeming affluence were frequent. At the 1963 hearings, he remarked:

"The more we spend for national defense, the more Cal Tech gets." And in reference to Lee DuBridge, president of Cal Tech: "He had about \$30 million in 1962. No telling what it will be in 1964. You can tell the doctor to go to other fields. He has already conquered this one."

When an NSF official said, "I simply don't know how to answer" the demand for broader geographical distribution of fellowships, Thomas replied:

"We will answer it for you"—which he did, by specifying that no more than 10 percent may go to residents of any one state.

NSF's friends regularly complained that Thomas was unduly restricting its budgetary growth. But in the course of 15 years the Foundation went from an annual budget of \$225,000 to over half a billion dollars—a spectacular rate of growth. Thomas did not provide sympathy or pressure for expansion, but for this country's first venture into government support of science for the sake of science, he may well have been the most suitable political overlord.—D.S.G.

Northeast Corridor: Transport Project Gains Headway

The Northeast Corridor Project, gaining fresh momentum as the result of favorable attention from Congress last year, is an unprecedented venture in comprehensive transportation planning on a regional scale. Conducted by the U.S. Department of Commerce, the project is an ambitious and exciting undertaking by an agency better known for its solid bourgeois virtues than for its glamor.

If all goes well, the project will foster new technologies such as automated highways and trains capable of speeds up to 300 miles per hour or more. It could lead also to the first overall regional transportation system carefully planned, perhaps by an intergovernmental agency, to encourage patterns of economic activity and population distribution deemed socially desirable.

Although a wealthy region, the Northeast is faced with pressing transportation problems and an urgent need to improve the lot of its less favored inhabitants, particularly those of the explosive Negro ghettos. Stretching along the east coast from Maine to Virginia, the corridor is the nation's most striking example of the way in which urbanization can produce a megalopolis. Frequent highway traffic tie-ups and increasing congestion at air terminals already portend a troubled future for the Northeast megalopolis

unless a more efficient transportation system is developed for the region.

Senator Claiborne Pell of Rhode Island, the chief congressional proponent of a high-speed ground transport (HSGT) system for the corridor, noted recently that, on the Sunday following last Thanksgiving, 217,783 cars tried to use the New Jersey Turnpike, causing traffic jams 10 miles long. There is comparable, and in some respects more serious, congestion in the air above the corridor. As Pell recalled, 5 years ago two airliners collided over Staten Island at a cost of 132 lives; a collision last December caused one of the airliners involved to make a fiery crash landing in which four people died.

In addition to having clogged roads and crowded airways, the Northeast's present transportation "system," according to a study conducted for the Department of Commerce by M.I.T., generally reinforces the familiar residential and job-location pattern. Higher-income groups live more or less comfortably in the suburbs and go daily to well-paying jobs in the city, while low-income slum dwellers, often too poor to own a car, have difficulty reaching good blue-collar jobs in suburbia and, in many cases, must accept less desirable jobs in the city. The suburban jobs, though becoming increasingly plentiful, are widely scattered and not

easily reached by public transportation, even if the city worker hears of them, and often he does not.

Conscious of the close relationship between transportation networks and economic and residential patterns, the Commerce Department is conducting some studies, and contracting for others, in which engineers collaborate to varying degrees with economists, sociologists, planning specialists, and other social scientists.

For example, the M.I.T. study, though essentially a survey of the technology for HSGT systems, was a step toward an interdisciplinary approach. The project "task force" was directed by William W. Seifert, assistant dean of the M.I.T. School of Engineering, and Robert J. Hansen, professor of civil engineering. Most members of the task force were engineers, but several were political scientists or city planners, and an economist was a project contributor. The principal coordinating device was a steering committee on which the various disciplines were represented. Robert C. Wood, formerly chairman of the political science program at M.I.T. and now undersecretary of the U.S. Department of Housing and Urban Development, was the senior social scientist participating.

The M.I.T. study, commissioned in September 1964, was completed last October, and the results were made public in December. The task force recommended careful consideration of the indirect impact any HSGT system is certain to have on the Northeast. A system designed to permit easy circulation throughout metropolitan areas, for instance, could encourage Negroes and other low-income people living in down-