

A Battle over Bell Labs

Legislation in Congress could change the way the labs work; AT&T is lobbying hard, but critics say it is a phony war

A large question mark is growing over the future of the Bell Laboratories—and indeed of U.S. basic telecommunications research in general—as Congress, the Reagan Administration, and AT&T continue to debate the terms under which the company will shed some of its current assets in return for being allowed to compete in new data processing fields.

The principal uncertainty is over how much damage the planned restructuring of AT&T's empire, either through agreement with the Justice Department or through new legislation, will do to a research environment that has allowed the laboratories to grow into one of the largest and most effective private research organizations in the world.

AT&T is currently awaiting Judge Harold T. Green's verdict on the antitrust settlement reached earlier this year. In the meantime, after several months of silence, the company has recently opened a major assault on a bill (H.R. 5818) introduced last year by Representative Timothy Wirth (D-Colo.), chairman of the telecommunications, consumer protection, and finance subcommittee of the House Energy and Commerce committee.

Dr. Arno Penzias, vice president for research at Bell Laboratories, told the House Science and Technology committee last week that parts of the proposed bill which specify how research could be funded by the components of AT&T would do "irreparable damage to a major asset of this country's R & D capabilities" and would have a "chilling effect" on the laboratories' research programs.

Wirth claims that his intentions have been misinterpreted by AT&T, that he respects the laboratories as a "valuable national resource," and that his bill does not interfere with the labs' capability "to continue its major role in enriching our nation's technological development through basic research." He has virtually accused the company, in a letter to the *New York Times*, of stirring up dissent among its scientists by providing "false information" about the purposes of his proposed legislation.

Bell Laboratories had a budget last year of \$1.63 billion, with 8.3 percent going to basic research (referred to generically as "research"). More than half the total comes from Western Electric, the manufacturing arm of AT&T, pri-

marily for the development of new products. According to calculations by the Office of Technology Assessment (OTA), about 80 percent of the funds for Research and Systems Engineering functions—which include basic research—comes from the Bell Operating Companies, which currently pay AT&T 2.5 percent of their annual gross revenues. The remaining 20 percent is paid for by Long Lines, the subsidiary responsible for long distance telephone services.

Under the terms of the antitrust consent decree, the operating companies would be sold off and would therefore no longer be contracted to provide income for either AT&T or the Bell Labs. AT&T chairman Charles Brown, however, has already promised that the company will make up the lost funds from other revenue streams within the organization. Most importantly, the internal management of the laboratories would remain the responsibility of AT&T, with all R & D funds being distributed from a single pool.

Wirth is proposing further change through H.R. 5818. The overall thrust of his bill, in addition to including various provisions in the consent decree, would be to increase the separation of Long Lines from AT&T. The purpose is to reduce the possibility of the regulated long distance services being used to subsidize the company's unregulated subsidiaries. But the separation would extend down to the level of the Bell Laboratories, where projects funded from regulated and unregulated sources would have to remain sharply distinguished.

As Wirth sees it, the result of trying to prevent cross-subsidization in this way would merely be some "minor accounting requirements." In a letter to Frank Press, president of the National Academy of Sciences, he denies a charge from AT&T that the result would be to prevent Long Lines from funding basic research. The subsidiary could continue to do this, "provided only that it does so under a contract which in price and terms meets the standard of an arm's length dealing," he told Press, who had promised Academy members concerned about the future of the laboratories that he would find out more about the congressman's intentions.

AT&T, however, sees things differently. It argues that Wirth's proposals

would make it impossible for Bell Laboratories to conduct research along an integrated R & D spectrum as it does at present. "The 'minor accounting requirements' would force me to fit my research programs into predictable boxes in ways that I cannot do without distorting the work that would be contained in the boxes," Penzias told last week's hearing.

William Keefauver, AT&T's vice president and general counsel, says that in order to meet the requirement that research funded by Long Lines be "walled off" from that supported by the unregulated companies, it would virtually be necessary to set up two separate research organizations.

Nor is AT&T complaining only about



Representative Timothy Wirth

Says AT&T has misinterpreted his bill

the proposed need to distinguish sources of funding. The Wirth bill would also place restrictions on the flow of technical information between research projects to prevent further cross-subsidies—another change which, argues Penzias, would reduce the overall effectiveness of the laboratories by creating artificial barriers between research teams.

Staff members of the Wirth subcommittee claim bemusement at the strength of the AT&T assault on their bill. Wirth argues that if AT&T had cooperated earlier with efforts to draft the wording of the legislation, rather than refusing all requests for cooperation until a few weeks ago, much of the "misunderstanding" could have been cleared up.

AT&T officials accept that some of their specific complaints might be met by

Environmental Policies Attacked

The Reagan Administration has come under renewed attack for its environmental actions in a lengthy report just published by the Conservation Foundation in Washington, D.C. The foundation, a generally nonpartisan research organization, concluded after an 8-month study that the President and his appointees have sharply curtailed environmental research and enforcement in critical areas, with the result that the long-term environmental outlook seems discouraging.

The report, entitled *State of the Environment 1982*,* is noteworthy for its breadth and its blunt appraisals of the condition of the environment. It was prepared as a follow-up to previous such assessments written annually by the White House Council on Environmental Quality (CEQ) under previous Administrations. The earlier reports achieved wide circulation as standard reference works. Under the Reagan Administration, however, the reports have been delayed because of cutbacks in the CEQ budget, and at one point last year were thought to have been eliminated altogether.

It was then that the foundation decided to prepare its own analysis at a cost of roughly \$300,000. The result is a 400-page document that examines nine different aspects of environmental quality, from underlying economic trends to water resources and hazardous wastes. "We were hopeful that some constructive things would come out of this Administration," says Terry Davies, the foundation's executive vice president. "Now, having waited a year and a half, nothing constructive has come forth." The conclusion is made more significant by the group's conservative reputation and by the inclusion, on its board of trustees, of several prominent Republican politicians, including two former governors and Pete Wilson, a candidate for governor of California.

The report says that the Administration's emphasis on "deregulation, defederalization, and defunding" has disrupted the bipartisan support for environmental protection. "It [the Administration] has pursued its domestic goals with such single-mindedness, so aggressively, as to allow conservationists no alternative but to protest."

Particular concern is generated by the curtailment of funds for research, monitoring, and planning, the report states. "The information base for environmental policy, always weak, is likely to be even weaker in the future. We will be less able to sort out important problems from unimportant ones, less able to tell which environmental programs are working effectively and which are not." The report cites, among many examples, a sharp cutback in personnel at the Environmental Protection Agency office that organizes and interprets trends in air quality, the elimination of most environmental forecasting throughout the government, and a cutback in funds for a network of stations that monitor national water quality.

Reductions in regulation are occurring at a time when new environmental problems have appeared and old ones have not been solved, the report states. Water quality is increasingly worsened by toxic pollutants, resulting in hundreds of well closures throughout the country. Soil erosion and exploitation of natural resources are increasing, the report says.

The Reagan Administration's response to these problems has in part been to turn the responsibility for their resolution over to state and local governments. Ernst Minor, appointed by Reagan to CEQ, says that the forthcoming CEQ report (describing environmental quality in 1981) will emphasize the virtues of such decentralization. "The proper role of the federal government is in a partnership," he says.

In contrast, the foundation report states that the effect of the Administration's "partnership" has been to leave financially strapped communities with too much responsibility for environmental study and regulation. William Reilly, president of the foundation, says that "today, few state governments are in a position to replace federal expenditures . . . or to establish regulatory standards that may be perceived as driving prospective economic development to other jurisdictions."—R. JEFFREY SMITH

**State of the Environment 1982* (The Conservation Foundation, 1717 Massachusetts Avenue, NW, Washington, D.C. 20036).

modified wording. For example, the bill might be revised explicitly to exempt basic research from the requirement that separate funding sources be identified.

From AT&T's perspective, however, the main problem with Wirth's bill lies not so much in its wording as in its general thrust. "The problem in research and development is a smaller part of a bigger problem stemming from [Wirth's] insistence that Long Lines be walled off from the rest of the system," says Kee-fauver.

Ironically, the consent decree itself, to which AT&T has already in principle agreed, could have as much impact as Wirth's bill on the basic research programs of the Bell Laboratories by removing the guarantee of funding from the operating companies.

According to Penzias, this is part of the price that the company is prepared to pay to enter the data processing field, particularly since it would remain free to manage the laboratories in any way it chose. Although regretting the lost funding, he said that he can "live with" the result, particularly since AT&T has promised to find alternative support.

Others, however, feel the company is making light of the potential impact of the agreement on the laboratories. "What surprises me is that their express concern about Bell Laboratories, and the survival of research at the laboratories, seems to surface more with respect to H.R. 5158 [than the consent decree], because it seems to us that some of the main impacts are embedded in the decree," says John P. Gibbons, director of OTA. "The basic process, by virtue of the consent decree without any legislation, is going to be changed in a very significant way, and we are only left with AT&T saying 'don't worry, we will sustain it.'"

Penzias told the science committee that it was necessary to retain the existing structure of the Bell Labs in order to meet competitive challenges to the U.S. telecommunications industry from both European companies and "Japan Incorporated." Wirth replied by referring to evidence presented to his own subcommittee that one of the best ways to increase international competitiveness was to stimulate competition at home, which his bill was designed to do. Staff members of the telecommunications subcommittee are currently negotiating with AT&T about the language of the Wirth bill, due for mark-up by the full Energy and Commerce committee by the end of June. As for Penzias, "I'm a scientist, and I'd love to go back to working science."—DAVID DICKSON