

LETTERS

Save OTA from Congress's Budgetary Ax

At no time in our history have both Houses of Congress so challenged the legitimacy of the Federal scientific and technological enterprise as they are doing today. Congressman George Brown says that the Kasich-Walker budget would reduce the FY 2000 funds for Federal R&D (in constant dollars) by 34.7% below this year's level. The most favored science agency outside the military, the NSF, would be cut under the Senate plan by more than \$100 million over the next seven years, while the remaining funds annually erode in purchasing power. Major research agencies are to be abolished. Partnerships with industry, called "corporate welfare" in the plans, are to be terminated.

A dramatic shake-up of government has its value; certainly there are many questions that politics seemed to keep off the table that can now be raised and discussed. The world is changing fast. America has formidable competitors in Japan, Germany and soon perhaps China, Korea and elsewhere. All of them are pouring the coals on their scientific research engines, expecting that to ensure their economic success.

Does Congress have a source of objective, nonpartisan and authoritative technical advice to help it understand the complex workings of the US science and technology enterprise and work out what reforms are really needed?

Yes, it does—the Office of Technology Assessment, a 20-year-old, \$22 million Congressional agency staffed by a talented team of scientists, engineers, economists and other experts. But Congress may not have it long. Congress is on a fast track to abolish its own best resource for understanding the American S&T enterprise. Both House and Senate budget plans explicitly call for the abolition of OTA.

Twenty years in developing its competence, OTA is highly respected (and

copied) around the world. It is a unique asset, allowing the legislative branch of government to evaluate independently both what it is told by the Administration and the issues it must face on its own. It is the smallest of the Congressional agencies, yet the only one to be axed.

Why has it attracted the apparently implacable opposition of the Congressional leadership?

Is OTA a political arm of the Democrats? No. The chairman of its rigorously bipartisan Technology Assessment Board, Amo Houghton, is a Republican, because it was their turn.

Do individual Congressmen and Senators direct it to do studies on loaded questions? No. All of its studies are commissioned by both the majority and minority leaders of a standing committee (or by the TAB itself).

Do the OTA reports make recommendations that might incite partisan passions? No. OTA reports never make recommendations; they present a factual analysis and offer alternative courses of action with comments on the assumptions appropriate to each one.

Is its work of no value to Congress? No. The committees continue to ask OTA to undertake new work even as the leadership plans its demise.

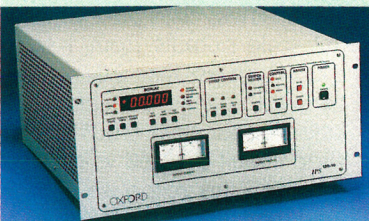
Congress seeks to lead America into the 21st century; the leadership's vision is of a swift, innovative, entrepreneurial country, its business community exploiting science unhampered by the dead hand of bureaucracy. That is a noble goal. But as Houghton told the House Appropriations Committee, "the one tool Congress needs more than about any other . . . is knowledge of worldwide science and its implications for legislation. The only working technical window which provides that information is OTA. Without it we fly blind."

Citizens who understand the complexity of the national S&T system and the global challenges it faces must not allow the legislators we elected to cripple much of the pride of American science and technology and then destroy the best tool they have to help them understand what they have done.

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representatives and make our views known. By the end of this session of Congress it may be too late.

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Scientists Can't Afford Disinterest in US Debt

In the April Washington Reports (page 65) Irwin Goodwin presents in great detail a proposed Federal R&D budget for the next fiscal year. The news story also contains a few scattered comments that allude to fundamental problems in the Federal budget as a whole. These larger problems are so serious that the budget process described in the story sounds like a classic case of rearranging the deck chairs on the Titanic.

Goodwin makes the observation, in regard to projected interest payments on the national debt, that "such whopping payments exceed the nation's annual deficits." Well, they had better, or rather the deficits had better be smaller than the interest payments, because of a simple but little-recognized fact: In any year when the deficit is as large as the interest payment, we are borrowing all of the interest money, which causes the national debt to grow exponentially. The doubling time of the debt can be estimated from the numbers given in the story. The debt is cited as around \$4.9 trillion, with an annual interest payment of \$235 billion, which implies an interest rate of about 5%. Using the "rule of 72," the current doubling time is about 14 (72/5) years. Would we really borrow all of the interest money? Well, according to newspaper reports, deficits in recent years have actually been larger than interest payments (this situation changed just last year), and it is widely known that in a recent 12-year period the debt quadrupled, which implies a doubling time of just 6 years.

This simple picture suggests that we are in a financial state of emergency, and it may explain why the dollar has been "plunging to new lows against such strong currencies as Japan's yen and Germany's mark," as Goodwin notes. It also shows why the current efforts to balance the budget are so important. Many of us in the physics community are engaged in research that is most appropriately funded by the Federal government, so if we want such funding to continue for longer than a few more years, perhaps

our first priority should be to insist that our elected officials in Washington stop borrowing money. After all, if the budget were balanced tomorrow we would still be stuck with interest payments of more than \$200 billion every year, indefinitely. The longer we allow overspending to continue, the larger the debt and interest will grow, and the smaller the amount of money will be for R&D or any other worthwhile activity.

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Did Sagdeev Disguise Soviet System's Sins?

Richard Garwin, in his review (October 1994, page 69) of Roald Sagdeev's memoirs *The Making of a Soviet Scientist* (Wiley, 1994), presents this quotation from the book: "Many, despite the pressure of mundane life, stay firm in their selfless service to science. God help them to do so with the same grace, tenacity and integrity that distinguished that special breed of scientists, 'the keepers of the flame,' that were [Peter] Kapitsa and [Lev] Landau, [Mikhail] Leontovich and [Andrei] Sakharov." Garwin adds, "I have no doubt that Sagdeev also belongs on this list."

To place Sagdeev in the same rank as such outstanding physicists and personalities is a gross distortion of historical reality—a complete devaluation of moral standards. I worked in the Soviet Academy of Sciences for more than 50 years, meeting and talking with Sakharov, Leontovich, Landau and (less frequently) Kapitsa, as well as with many others mentioned in Sagdeev's book. The morality of the scientists and of their interrelations with the official bodies in the USSR was a significant and urgent question for me for many years, especially since 1968, when Soviet tanks entered Prague, and since 1975, as a refusenik and a participant in an unauthorized scientific seminar. This seminar was initiated in 1973 by physicists Mark Azbel, Benjamin Levich and Alexander Voronel. After their emigration to Israel, the seminar was moved from Azbel's home to the home of mathematician Victor Brailovsky. After he was arrested in 1980, the seminar operated at my home until 1987, when I and my wife, Svetlana Alpert, were permitted to leave the USSR. The seminar was attended by scientists from England, Denmark, France, Norway, Sweden, the US and other countries. In 1980—

continued on page 76

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