

November 7, 1984

REASSESSING THE OFFICE OF TECHNOLOGY ASSESSMENT

INTRODUCTION

It is time to assess the Office of Technology Assessment. The controversy triggered by OTA reviews of several key Reagan defense proposals indicates that OTA not only may be influenced by political considerations but, more serious, may have compromised U.S. national security. Concern about OTA's balance and fairness has mounted so high that Senator Orrin Hatch, the Utah Republican, has asked the Senate Ethics Committee to review OTA operations.

OTA was established in 1972, as a congressional agency to provide legislators with timely analyses of scientific and technological developments. While it has earned a measure of respect and acceptance on Capitol Hill, a residual suspicion about OTA's reliability was fueled by the events surrounding an April 1984 Background Paper by OTA consultant Dr. Ashton Carter, entitled "Directed Energy Missile Defense in Space." This study is extremely critical of the Reagan Administration's Strategic Defense Initiative (the so-called Star Wars program [SDI]). The Department of Defense formally asked OTA to withdraw the document, citing its "numerous errors" and "false conclusions." Military experts in the media, on Capitol Hill, and in the executive branch similarly have criticized sharply the OTA paper.

In the study, for example, at least one OTA program division placed the political goal of discrediting SDI ahead of balanced and objective analysis. In so doing, OTA staffers, in the name of Congress, compromised national security by releasing highly classified information. At the same time, security procedures in the executive branch were too lax.

A responsible OTA serves legitimate congressional needs by providing timely, valuable, and reasonably objective analyses of

OTA satisfied virtually no one in its early years. Representative Marjorie Holt (R-MD) resigned from its Technology Assessment Board in 1977, complaining that Senator Edward Kennedy (D-MA) dominated the Office.³ Leftists called the Office a rubber stamp for the White House, saying it lacked the courage to investigate controversial matters.⁴ During the term of its first Director, Emilio Q. Daddario, legislators complained that OTA cranked out too many short analyses. Under its second Director, Russell W. Peterson, other Congressmen accused it of concentrating on long-range studies and neglecting committee needs. In the late 1970s, however, reforms and staff shake-ups revitalized OTA; under Director John H. Gibbons, the Office slowly won acceptance on Capitol Hill.

Congress controls the Office through the Technology Assessment Board (TAB), which sets OTA's operating procedures. Composed of twelve legislators evenly divided by chamber and party, TAB is led by a Chairman and Vice-Chairman elected to the Board at the beginning of each Congress (the two positions are alternately held by Senators and Representatives).⁵

Every six years Congress appoints an administrator of OTA, the Director, who sits on the TAB but does not vote. Director John H. Gibbons took office in 1979. He supervises three Assistant Directors; one for each of OTA's three program divisions--Energy, Materials, and International Security; Health and Life Sciences; and Science Information and Natural Resources. Each Assistant Director, in turn, administers three programs, making a total of nine program areas. These program areas provide staffing for program teams assigned to conduct OTA analyses.

OTA has a permanent staff of about 145, including around 100 scientists, engineers, physicians, and attorneys. An additional 50 to 60 temporary staff, both professional and clerical, work on specific OTA projects. OTA's budget has increased from \$12.14 million in FY 1982 to \$14.84 in FY 1984, a 20 percent increase in two years.⁶ OTA was allocated \$15.55 million for FY 1985.

The twelve-member Technology Assessment Advisory Council (TAAC) assists the Director and the TAB, and is comprised of ten

³ Congressional Quarterly Weekly Report, June 18, 1977, p. 1202.

⁴ Bulletin of the Atomic Scientists, February 1978, p. 20.

⁵ The current Chairman is Representative Morris Udall (D-AZ), and the Vice-Chairman, Senator Ted Stevens (R-AK). Their positions will reverse in the 99th Congress. The Board's other members are Senators Edward M. Kennedy (D-MA), Ernest F. Hollings (D-SC), Claiborne Pell (D-RI), Orrin Hatch (R-UT) and Charles McC. Mathias (R-MD); and Congressmen George E. Brown (D-CA), John D. Dingell (D-MI), Larry Winn (R-KS), Clarence E. Miller (R-OH) and Cooper Evans (R-IA). Senators are appointed to the Board by the President Pro Tempore of the Senate; Representatives by the Speaker of the House. The TAB meets an average of four times a year.

⁶ Fiscal Year 1985 Justification of Estimates, Office of Technology Assessment, December 15, 1983, pp. 13, 17.

public members, the Comptroller General, and the Director of the Congressional Research Service. Members of the TAAC serve staggered four-year terms and may be reelected once. In recent years, the Council has met twice annually, but has agreed to meet three times a year in the future.

OTA Activities and Procedures

The OTA completes 15 to 20 reports (also called assessments) per year. These "are the principal documentation of formal assessment projects" and must be approved by the TAB prior to release to the public and Congress. They take from one to two years to complete, are 200 to 300 pages long, and cost an average of \$500,000. Accompanying each report is a Report Summary.

In addition, there are Background Papers, which supplement the formal assessments or discuss questions not of immediate policy interest; they need not be approved by the TAB or the Advisory Council before publication. (The recent OTA study of ballistic missile defense was a Background Paper, and as such, was not approved by the TAB.) Unofficial study documents, usually those by outside consultants on contract to OTA, are sometimes published at the request of Congressmen as OTA Working Papers or Technical Memoranda.⁷ OTA staffers also testify before congressional committees on various topics and brief Congressmen and their aides.

OTA reports may be requested by (1) the TAB, (2) the Director (in consultation with the TAB), or (3) a congressional committee.⁸ The TAB decides whether OTA may proceed with the requested assessment. Although the words "assessment activities" in the OTA Act (Sec. 3(d)) would seem to include all OTA analyses, in practice "assessment activities" are interpreted by the Director and the Board to mean only full-scale reports. Therefore, in practice, any member of Congress may request an OTA Background Paper, workshop, briefing, or any analysis or presentation--anything, that is, but a formal report. OTA's Director may spend up to \$30,000, without Board approval, to evaluate an issue or a prospective analysis.⁹

OTA staffers maintain close ties with congressional and committee staffs, seek to determine the needs of Congress, and suggest ideas for assessments. If a congressional or committee office decides it needs a study suggested by OTA, it "requests"

⁷ Fred Wood, "The Status of Technology Assessment: A View from the Congressional Office of Technology Assessment," Technological Forecasting and Social Change, December 1982, pp. 211-219.

⁸ Public Law 92-484, Section 3(d).

⁹ "Policy on the Director's Responsibilities," Resolution of the Technology Assessment Board, September 12, 1979.

that OTA undertake the analysis.¹⁰ According to a Senate aide, OTA does not "just sit around and wait for the phone to ring;" it is continually "lobbying" legislators to persuade them to request analyses.

OTA assessments proceed through 15 stages: consultation with committee staffs, proposal preparation, TAB approval, staffing, planning, convening an advisory panel, ensuring public participation, data collection, contracting, report writing, revision, Director and TAB approval of the report, publishing, follow-up, and closeout.

Proposals are reviewed by an OTA project screening committee, which considers congressional interest in the proposed study area, anticipated use of the completed assessment, staffing and contracting requirements, parties with significant interests in the questions to be analyzed (stakeholders), and the possible composition of the project's advisory panel.

The TAB has set criteria for approval of OTA project proposals including: whether the proposed assessment will study a current or likely national issue with significant policy options; whether the technology under question will have a marked, imminent, and possibly irreversible impact; whether the proposed study is within OTA's budgetary and methodological means; and whether OTA can make a unique and relevant contribution to knowledge of the topic.¹¹ The TAB rarely questions OTA proposals at length; Board meetings average less than an hour, and the Board usually approves by acclamation the Director's requests for assessments. The difficult task of securing a consensus on the proposed report is usually handled before Board meetings in conferences between OTA staffers and aides of the Senators and Representatives serving on the TAB.¹²

Each assessment, after approval, is assigned to a project team from OTA's permanent staff. Teams typically include a full-time project director, a senior analyst, and a research assistant. The project's advisory panel is supposed to ensure the report's objectivity and authoritativeness. All major assessments employ advisory panels, which typically consist of 12 to 20 scientists, engineers, and experts including representatives from labor, industry, and consumer groups and are supposed to represent a wide and balanced range of backgrounds, perspectives, and interests. Advisory panels usually meet three times to critique the work in progress and the final report. OTA analyses also may employ workshops, which generally meet only once, to address specific problems or questions posed by the larger study.

¹⁰ Interview with Mary Proctor, Director of Congressional and Public Affairs of the Office of Technology Assessment, August 9, 1984.

¹¹ Wood, op. cit.

¹² Ibid.

Workshops need not be adjuncts to larger studies, however. In January 1984, at the request of Senator Larry Pressler (R-SD), OTA conducted a workshop on "Arms Control in Space," and in May published the proceedings under that title.¹³

Large portions of OTA assessments are routinely contracted out to experts in industry and academia. Contractors may be selected through formal competitions, informal solicitation, and sometimes through sole source procurement.

The project team writes and revises the reports. External reviewers of OTA reports include the advisory panel and representatives of concerned government agencies, private stakeholders, and independent experts; as many as 75 to 100 outside reviewers may critique a report. Internal reviewers generally include program and division managers. Criticisms are considered and included at the discretion of the project team.

The final draft of the report is sent to the Director for approval, along with a memo explaining the study's history, panelists, contractors, major criticisms offered by reviewers, and OTA's responses to those criticisms. If approved, it is then sent with the explanatory memo to the TAB for final approval. TAB review normally takes about two weeks. Finished reports, summaries, and supplementary materials are then made available to Congress, the press, and the public.

"DIRECTED ENERGY MISSILE DEFENSE IN SPACE"

Origins of This Background Paper

Under Dr. Peter Sharfman, its Program Director, OTA's International Security and Commerce Program has become increasingly interested in the controversies surrounding nuclear weapons and strategy. In 1979 his office completed a report, "The Effects of Nuclear War," which provided much of the technical information

¹³ The list of participants for the OTA Workshop indicates little effort by OTA to draw together a truly balanced group of perspectives on space-related issues. The Chairman, McGeorge Bundy, has stated that "The Star Wars speech is one of the most irresponsible and destructive utterances that a President has made in the nuclear age"--hardly the model for an objective Chairman; the other 24 participants were heavily weighted toward critics or skeptics of strategic defense. At least nine of the non-OTA staff participants have been publicly critical of the SDI, and the three OTA staff can hardly be called sympathetic. In fact, only one clear sympathizer with strategic defense was among the participants. While the topic of the session was on arms control and space, in fact, SDI is integrally related to this issue; see, for example, Robert Foelber and Brian Green, "Space Weapons, The Key to Assured Survival," Heritage Backgrounder No. 327, February 2, 1984.

for Freeze, written by Senators Edward Kennedy and Mark Hatfield.¹⁴ In publishing Sharfman's report "MX Missile Basing" in June 1981, OTA for the first time investigated a question of defense policy. Assessments on strategic command, communication, control, and intelligence (C³I), and on ballistic missile defense are now underway.¹⁵

As congressional interest in strategic defense waxed in spring 1983, OTA anticipated a formal request to assess the issues relating to ballistic missile defense. It commissioned former employee Dr. Ashton Carter to study the plausibility of a space-based strategic defense. Now a researcher at Massachusetts Institute of Technology, Carter has been associated with the Union of Concerned Scientists (he co-chaired a forum on space defense for UCS last April), an organization energetically opposed to the strategic defense program and to many, if not most, national defense measures.

In November 1983, when Carter's work was about half completed, Senators Paul Tsongas (D-MA) and Larry Pressler (R-SD) of the Senate Foreign Relations Committee requested that his findings be published as an OTA Background Paper prior to their committee's hearings on this topic in April 1984. At roughly this time, Carter also coedited a book for the Brookings Institution, published as Ballistic Missile Defense in January 1984. Carter's introduction and lengthy chapter in this work drew heavily upon his research for OTA and on previous OTA assessments.¹⁶ On March 22, 1984, the TAB formally directed OTA to prepare an assessment on ballistic missile defense, to be published in the summer of 1985.

Research Procedures

Sharfman and Carter had access to very sensitive information in the Departments of Energy and Defense. Both had high security clearances (Q-Sigma, which allowed them to attend briefings on the designs of specific nuclear weapons)--higher than those of any Congressman's personal aides and higher than all but a handful of the clearances granted to committee staff members. Carter visited Lawrence Livermore National Laboratories for three days in October 1983, and there was briefed on the progress of the "Excalibur" X-ray laser system.

Yet Carter's paper underwent only an informal security clearance procedure before publication. Congressional staffs and

¹⁴ Edward M. Kennedy and Mark Hatfield, Freeze! How You Can Help Prevent Nuclear War (New York: Bantam Books, 1982).

¹⁵ Transcript of Proceedings, Technology Assessment Board (Washington, D.C.: Miller Reporting Co., March 22, 1984), p. 29.

¹⁶ Ashton B. Carter and David N. Schwartz, Ballistic Missile Defense (Washington, D.C.: Brookings Institution, 1984).

committees customarily acknowledge the receipt of classified material in a letter to the appropriate executive branch agency. Before publishing a document based on sensitive information, the committee staff usually submits a draft copy to the executive agency and asks that all classified material be marked so it can be removed before publication.

The case of this OTA report was different. In March 1984, Carter arranged a meeting between himself, Sharfman, and a high-ranking official of the U.S. Army's Ballistic Missile Defense Program Office in Crystal City, Virginia. At their meeting, Sharfman gave the official a copy of Carter's study and asked his opinion of the paper's accuracy and of the sensitivity of the material it contained. The Army official, in turn, submitted this copy to a subordinate (his security manager), who, several days later, returned it with comments to Sharfman and Carter's Army contact.

At a second meeting, on April 10, that contact returned the draft to Sharfman and Carter, advising them that it contained sensitive material under the jurisdiction of the Department of Energy and the Department of Defense's Strategic Defense Initiative office. The second meeting was informal. Sharfman did not ask the Ballistic Missile Defense Program Office to "clear" Carter's paper, and the paper was not granted a security clearance prior to publication by anyone in the Department of Defense or in the Department of Energy. Sharfman and Carter never asked the Strategic Defense Initiative office for a clearance and apparently never consulted the Department of Energy.

Carter's paper emerged from its "declassification process" on the weekend of April 22. Senators Pressler and Tsongas scheduled a hearing of the Foreign Relations Committee for the following Wednesday, April 25. On Monday, April 23, OTA sent the Background Paper to the members of the TAB (the Board customarily sees such documents at least three days before release). The next day, Pressler released the paper.¹⁷ The TAB never formally reviewed or approved this document, and because it cost \$29,700 (\$300 less than the maximum discretionary spending authority granted to the Director), the TAB did not have to approve funding for it.¹⁸ Background Papers are rarely cited by OTA in testimony before Congress, but at the following day's hearing Director Gibbons read large sections of Carter's paper. Gibbons appeared to concur with its verdict that a successful ballistic missile defense based on directed energy weapons was "so remote that it should not serve as the basis of public expectation or national policy."¹⁹

¹⁷ Transcript of Proceedings, Technology Assessment Board (Washington, D.C.: Miller Reporting Co., June 21, 1984), p. 35.

¹⁸ Interview with Lionel Johns (OTA Assistant Director), August 9, 1984.

¹⁹ Statement of Dr. John H. Gibbons to the Senate Committee on Foreign Relations, April 25, 1984, p. 11.

