
APPENDIXES

APPENDIX A-LETTER OF REQUEST

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United States Senate

COMMITTEE ON FOREIGN RELATIONS

WASHINGTON, D.C. 20510

September 8, 1978

NORVILL JONES, CHIEF OF STAFF
ABNER E. KENDRICK, CHIEF CLERK

The Honorable Edward M. Kennedy
Chairman, Technology Assessment Board
Office of Technology Assessment
United States Congress
Washington, D. C. 20510

Dear Mr. Chairman:

Several years ago, a study conducted under the auspices of the Office of Technology Assessment at the request of the Committee on Foreign Relations provided guidance which led to substantially improved analyses by the Department of Defense of the effects of limited nuclear war.

The resulting study was released by the Committee and has become an invaluable aid in the study of nuclear conflict. However, the OTA panel, under the chairmanship of Dr. Jerome M. Wiesner, President of the Massachusetts Institute of Technology, which was convened to oversee the study, went on to point out the need for a more thorough and comprehensive study of the effects of nuclear warfare and recommended that such a study be undertaken.

On behalf of the Committee on Foreign Relations, we are writing to request that the Office of Technology Assessment organize and conduct such a study on the effects of nuclear warfare, which would put what have been abstract measures of strategic power into more comprehensible terms. The study should concentrate on the impact which various levels of attack would have on the populations and economies of the United States and the Soviet Union. In the case of larger levels of attack, the study should address impact upon other nations. The earlier Department of Defense analyses concentrated upon short-term effects. In this more comprehensive study, intermediate and long-term, direct and indirect effects should be addressed as well. In the **original** study, the panel cited in its appendix a list of effects which should be detailed in a comprehensive and systematic way. The list is attached.

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We believe that this study would be valuable to the Committee, and to the Congress and the general public. It would become a basic reference work in this area of inquiry. We hope that the Office of Technology Assessment will be able to embark upon this project promptly, so that a finished product can be provided the Committee at the outset of the new Congress to assist the Committee in its oversight of strategic arms limitation issues. The earlier effort was conducted with the full support of the executive branch. We stand ready again to seek the assistance of appropriate government agencies in carrying out the necessary supporting work.

Sincerely,



Clifford P. Case
Ranking Member



John Sparkman
Chairman

Attachment

1975 OTA Panel's List of Damage Effects Requiring Examination

1. Damage effects should be detailed in a comprehensive and systematic way. At a minimum, each case examined should include the following information:

- a. Fatalities and injuries resulting from:

- Direct and indirect blast effects;
- Indirect effects resulting from fires, disruption of transportation, communications, medical facilities, etc.;
- Acute radiation deaths from fallout;
- Cancers, genetic defects, life shortening and other direct effects of radiation exposure resulting from: external exposure~inhalation of radioactive particles, ingestion of material from the food chain or the water supplies;
- Infections and diseases aggravated by the loss of resistance resulting from exposure to radiation.

Analysis of exposure should include both people exposed initially and people who have been sent to the area to assist in recovery. There should also be a discussion of world-wide effects with particular attention paid to Canada because of that nation's proximity to many U.S. targets which may be of strategic interest.

- b. The average integrated REM per survivor from all sources (prompt and fallout) should be indicated along with the geographic distribution of these dosages and a discussion of the disabilities resulting from each exposure level.

A detailed analysis should be made of the impact of the attacks on the local areas most heavily affected. The discussion should include a discussion of the feasibility of restoring the area to a viable economy, the land lost to agriculture, manufacturing assets lost, skilled manpower lost, and the impact on local ecologies (permanent altering of watersheds, pollution of streams and rivers with radioactivity, bursting of dams, etc.) . The effect of these local losses and problems on the national economy and environment should also be indicated.

- d. An attempt should be made to indicate the magnitude of the effort which would be required to clean up the contaminated area and restore it to its pre-attack condition. It should be possible to draw on the experience which we have had in attempting to restore the Bikini and Eniwetok atolls.

2. An attempt should be made to determine the amount of radioactive material which would be released by U.S. sites damaged by the effects of the enemy attack. Such material might be found in power or research reactors, nuclear material reprocessing facilities, waste disposal areas for radioactive materials, military installations where some nuclear weapons are not in hardened storage areas, weapons carried by aircraft which are on the bases attacked, and possibly on the ICBM's which may be destroyed in their silos. The added fallout from these sources should be included in the assessment of overall radiation exposure.