The Effects of Nuclear War

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## Foreword

This assessment was made in response to a request from the Senate Committee on Foreign Relations to examine the effects of nuclear war on the populations and economies of the United States and the Soviet Union. It is intended, in the terms of the Committee's request, to "put what have been abstract measures of strategic power into more comprehensible terms."

The study examines the full range of effects that nuclear war would have on civilians: direct effects from blast and radiation; and indirect effects from economic, social, and political disruption. Particular attention is devoted to the ways in which the impact of a nuclear war would extend over time. Two of the study's principal findings are that conditions would continue to get worse for some time after a nuclear war ended, and that the effects of nuclear war that cannot be calculated in advance are at least as important as those which analysts attempt to quantify.

This report provides essential background for a range of issues relating to strategic weapons and foreign policy. It translates what is generally known about the effects of nuclear weapons into the best available estimates about the impact on society if such weapons were used. It calls attention to the very wide range of impacts that nuclear weapons would have on a complex industrial society, and to the extent of uncertainty regarding these impacts.

Several years ago, OTA convened a panel of distinguished scientists to examine the effects of a limited nuclear war. The report and testimony of that panel, which were published by the Senate Foreign Relations Committee, remain valid. That panel recommended that a more thorough and comprehensive study of the effects of nuclear war be undertaken. This study is such an effort.

The Director of this assessment was Dr. Peter Sharfman, Group Manager for National Security Studies. OTA is grateful for the assistance of its Nuclear War Effects Advisory Panel, chaired by Dr. David S. Saxon, President of the University of California, and for the assistance of the Congressional Research Service, the Department of Defense, the Arms Control and Disarmament Agency, and the Central Intel Intelligence Agency. 1 t should be understood, however, that OTA assumes full responsibility for this report and that it does not necessarily represent the views of any of these agencies or of the individual members of the Advisory Panel.

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The Advisory Panel provided advice and constructive criticism throughout this project. The panel does not, however, necessarily approve, disapprove, or endorse this report. OTA assumes full responsibility y for the report and the accuracy of its contents.