MX Missile Basing

September 1981

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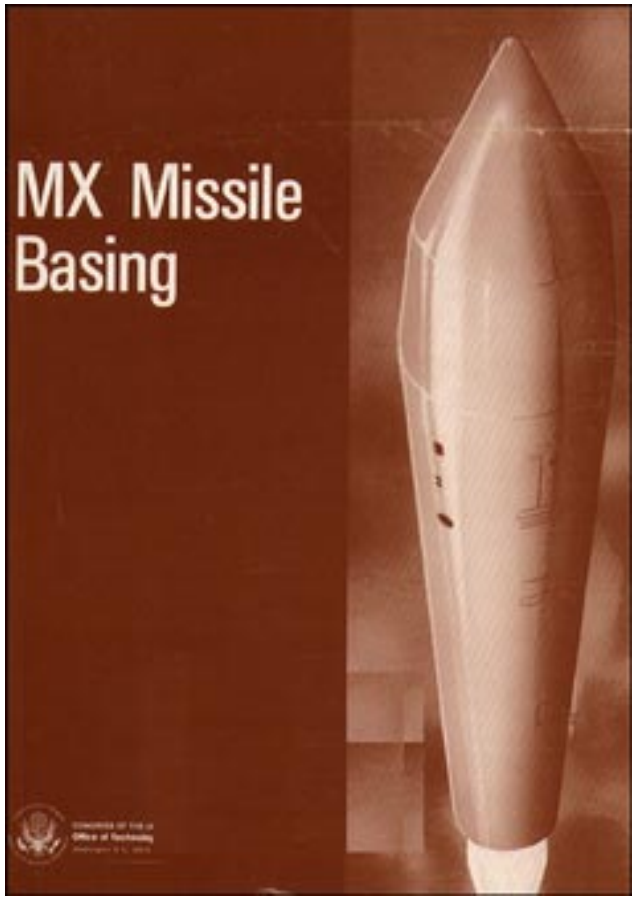

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Foreword

This report, prepared at the request of the Technology Assessment Board, reviews the various ways in which the new MX intercontinental ballistic missile could be based, and assesses the technical issues, the advantages, and the disadvantages associated with each major option. I n order to do so, OTA explored a wide variety of military technologies and issues, ranging from antiballistic missile defense to antisubmarine warfare to the impact of major construction projects on arid Western lands. OTA has made every effort to apply comparable assumptions and criteria to the various options assessed, and to be explicit about identifying questions which simply cannot be resolved on technical grounds alone. Our purpose is to assist Members of Congress in evaluating particular basing modes of interest to them, and to permit comparison of alternatives.

OTA identified a wide variety of possible basing modes and evaluated them in terms of: technical risk; degree of survivability; endurance; contribution to weapon effectiveness; effectiveness of command, control, and communications; arms control impacts; institutional considerations; impacts on the deployment region; costs; schedule; and impact on stability The concluding section of chapter 1 compares the leading options in terms of a variety of criteria used, and it is apparent that a final choice depends in large measure on the relative weight assigned to these criteria. Five basing modes were found that appear feasible and offer reasonable prospects of survivability, but none of them is without serious risks, high cost, important uncertainties, or significant drawbacks. No basing mode appears likely to offer survivability for the MX much before the end of the current decade

Much of the research done for this assessment required the use of classified sources. The material in this unclassified report is believed accurate, balanced, and complete but security requirements have at times made it necessary to omit some of the supporting technical analysis. OTA will shortly publish a classified annex to this report, which will be available to qualified requesters.

OTA is grateful for the assistance of its MX Missile Basing Advisory Panel, the cooperation of various components of the Department of Defense; the cooperation of the General Accounting Office, the Congressional Budget Office, and the Congressional Research Service; the assistance of other U.S. Government agencies; and the support of numerous individuals.

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