

MX MISSILE



Bulletin No. 81-28

LEGISLATIVE COMMISSION
OF THE
LEGISLATIVE COUNSEL BUREAU
STATE OF NEVADA

January 1981

TABLE OF CONTENTS

	<u>Page</u>
1. Table of Contents.....	i
2. Report of the Legislative Commission.....	ii
3. Summary of Recommendations.....	iii
4. Report to the Legislative Commission of the Special Committee on MX Missile Matters.....	1
I. Introduction and Background.....	1
A. Scope of Report.....	1
B. Work of the Special Committee.....	1
C. The MX System.....	2
II. MX Impact in Nevada.....	5
A. General.....	5
B. Physical, Social and Economic Impacts of MX.....	6
C. Nevada Law and Structure of Government and MX.....	7
5. Appendices.....	9
Appendix A - Suggested Legislation.....	10
Appendix B - Report of Russell W. McDonald "Comments and Suggested 1981 State Legislation Prompted by Federal Assistance Required to MX, A National Defense Project".....	17
Appendix C - Issue Brief IB77080, Congressional Research Service, "MX Intercon- tinental Ballistic Missile Program".	44

REPORT OF THE LEGISLATIVE COMMISSION

TO THE MEMBERS OF THE 61ST SESSION OF THE NEVADA LEGISLATURE:

After the conclusion of the 1979 legislative session, in September 1979, the President made a deployment decision on the MX missile system. That decision triggered full scale Air Force preparation to build the strategic missile system in Nevada and Utah. In December 1979, the legislative commission recognized the tremendous potential impact of the proposed system on every aspect of life in Nevada. In response, it created a special committee on MX missile matters.

The special committee conducted a heavy schedule of hearings and other activities throughout 1980 related to MX. This report conveys the major findings and recommendations of the special committee.

The report is transmitted to the members of the 1981 legislature for their consideration and appropriate action.

Respectfully submitted,

Legislative Commission
Legislative Counsel Bureau
State of Nevada

Carson City, Nevada
January 1981

SUMMARY OF RECOMMENDATIONS

1. Within designated basins, provide authority to the state engineer to issue temporary water permits for construction purposes.
2. Provide authority for a county to establish a branch jail in any township, not just in a town.
3. Provide a moratorium until July 1983 on the creation of new cities under the general law in chapter 265 of NRS.
4. Authorize school districts to acquire land and accept federal money to build and operate facilities in conjunction with MX.
5. Authorize counties, cities, unincorporated towns, general improvement districts, fire districts, flood control districts, conservation districts and the state department of conservation and natural resources to acquire land and accept federal money to build and operate facilities in conjunction with MX and to exempt them from the expenditure limitations law.

REPORT TO THE LEGISLATIVE COMMISSION
OF THE SPECIAL COMMITTEE ON
MX MISSILE MATTERS

I. INTRODUCTION AND BACKGROUND

A. Scope of Report

There is no intent in this report to provide a comprehensive description and analysis of the MX missile proposal in terms of the reasons for it, how it would work, why it is preferred by the Air Force to other ideas or the detailed impacts it will have on the state. The Special Committee on MX Missile Matters at the outset decided that the focus of its work would be an analysis of how the MX system would affect the state and how the negative effects could be mitigated by local, state and federal actions. Of special concern to the committee were possible changes in state law to facilitate the ability of state and local governments to deal with MX.

This report will describe the MX system, its purpose and the general nature of its probable impacts as the context for the recommendations. Complete documentation on MX including official government documents, the draft environmental impact statements and various articles on MX are available in the research library of the legislative counsel bureau for anyone wishing to explore the subject in greater depth. A particularly well-done and useful report on MX by the Congressional Research Service is attached as Appendix C.

B. Work of the Special Committee

The legislative commission established the Special Committee on MX Missile matters at its December 1979 meeting. It appointed Senator Richard E. Blakemore chairman and Assemblyman John M. Polish vice chairman. Members of the committee were Senators Keith Ashworth and James I. Gibson and Assemblymen Robert R. Barengo, Robert F. Rusk and Robert L. Weise. Subsequent to the first meeting of the committee in February 1980, Senator Joe Neal was added to the committee.

The first meeting of the committee was in Las Vegas on February 2, 1980. In a pattern repeated at all of the hearings, there were three main elements of the first meeting. There was a United States Air Force (U.S.A.F.) presentation, a local government presentation and a state presentation. In each case, the committee asked questions consistent with its basic concerns: (1) General oversight of the executive branch of state government; (2) Methods of assistance to state and local governments for impact assistance; and (3) Necessary changes in state law to facilitate state and local abilities to deal with MX impacts.

At the Las Vegas meeting, principal Air Force presentations were made by Lt. Gen. Kelly Burke, Deputy Chief of Staff, U.S.A.F., Research, Development and Acquisition; B. Gen. Forrest McCartney, U.S.A.F. Ballistic Missile Office, and Joseph Meis, Acting Assistant Secretary of the Air Force for Manpower, Installations and Reserve Affairs. Presentations for the state MX office were made by Robert Hill, state planning coordinator and Connie Ashcraft, MX office director. Commissioners Mike Fogliani of Lincoln County and Robert Broadbent of Clark County made presentations on behalf of the local oversight committee. Congressman James Santini participated with the committee at this hearing.

There were additional public hearings in Carson City in April, Ely in May and Tonopah in July. The committee also held working meetings in Carson City and Reno and visited U.S. Strategic Air Command Headquarters in Omaha, Nebraska.

The special committee on MX concluded its work in December with recommendations on legislation for the 1981 session.

C. The MX System

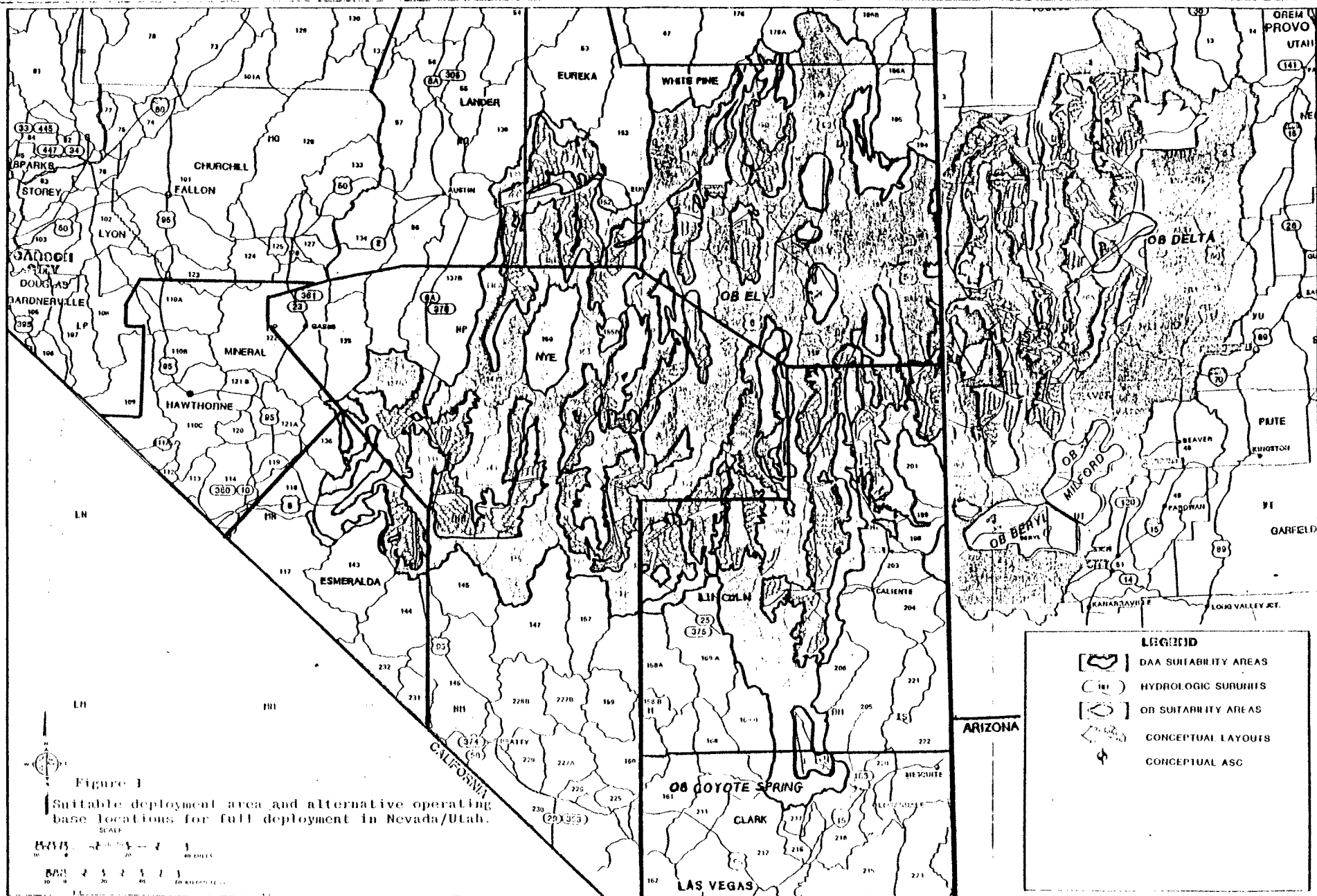
MX stands for "missile experimental." The need for MX was recognized in the early 1970's. Design work on a replacement missile for Minuteman II and III and Titan II began at that time. In the latter part of the 1970's, defense officials began looking at deployment systems different from the silo-based, one missile per silo arrangement of the Minutemen and Titans. The reasons were basically two. First, it became clear in the latter 1970's that Soviet missile technology, especially regarding accuracy, was improving at a rapid rate at the same time that numbers of missiles and warheads were increasing at a similar rate. Second, the Strategic Arms Limitation Treaty

(SALT) negotiating process was leading to new criteria on survivability and verifiability for any system to replace Minuteman. The requirements of survivability and verifiability meant that the missile had to be deployed so that it would be impossible for the Soviets to destroy all or most of the missiles in a first strike. It also meant that the deployment would have to allow for verification of the total number of missiles by satellite inspection.

The MX missile itself is a four stage missile that carries 10 nuclear warheads under SALT limits and up to 12 without those limits, each of which is independently targetable. Each missile, then, under SALT could strike 10 targets. The total force could strike 2,000 targets. Three of the four stages are solid fuel which means that firing can be virtually instantaneous and also that there is very little fuel hazard. In the final liquid fuel stage, the component liquids necessary for volatility are not mixed until the missile is in its terminal phase.

The Air Force considered a number of deployment schemes. In addition, the Department of Defense also studied over 30 options for a follow-on strategic system to Minuteman including various sea-based concepts. The Air Force deployment options included the buried trench, vertical silos and horizontal shelters. For a number of reasons related to initial cost, operational cost and operational effectiveness, the Air Force chose the horizontal, multiple protective shelter option. The original version of this option consisted of 200 closed loops, each with 23 shelters. There would be one missile per loop and it would be moved in a random fashion from shelter to shelter. The idea is that no one could tell at any given moment where a missile was. Even if this were known, all missiles could be moved to new shelters if there was imminent threat of attack. The closed loop concept was changed to an open-ended grid pattern that facilitates the addition of shelters, up to 35 per missile, and requires somewhat less land than the loop pattern.

Of the 200 missile grids, 60-65 percent will be in valleys in central, eastern and southern Nevada. The rest will be in western and southern Utah. (See deployment area map on the next page.) The map assumes that the entire system will be built in Nevada-Utah. Congress directed the Air Force to examine the possibility of putting half the system in Nevada-Utah and the other half in Texas-New Mexico. The draft environmental impact



statement (DEIS) addressed later covers both areas. The Air Force, for reasons of cost and command and control prefers to have the entire system in a contiguous area.

If the entire system is put in Nevada and Utah, there will be two main operating bases and several satellite support bases. The main bases will be on the periphery of the deployment area and the satellite bases through the area. The draft EIS that came out in late December 1980, evaluates the five possible main base locations including two in Nevada; the Steptoe Valley near Ely and Coyote Springs, some 20 miles northwest of Moapa.

No personnel would be based at the 200 shelter clusters. The individual shelters would be located on 2.5 acre sites surrounded by fences. Otherwise, the deployment area is to remain open as it is now. Electronic sensors placed in and around fenced areas will alert security forces based through the deployment area of any intrusions into restricted areas. Security teams would respond to such alerts by vehicle or helicopter. This concept is known as point security as contrasted with area security.

Command and control of the system would be from one of the two main bases. There would be ground command centers backed up by airborne command posts. Operational control would be with the Strategic Air Command which operates all United States Intercontinental Ballistic Missiles currently.

The operational concept of the MX system, its intended purpose, its strengths, its weaknesses, arguments pro and con and how MX fits into basic United States strategic doctrine are all covered in Appendix C, CRS Issue Brief No. IB77080.

II. MX IMPACT IN NEVADA

A. General

After understanding the need for MX and how the system would work, the special committee's primary concern became the probable impacts of MX on Nevada. The committee itself did not undertake an analysis of impacts. That was in neither its intent nor its capability. Rather, the committee sought to assure that efforts by the state and local governments to address and assess MX impacts were adequate. Midway through 1980, the committee concluded that while assessment of the negative impacts of MX was an essential responsibility of the state

and local governments, impact assessment should also include possible positive effects and benefits from MX. The latter concern was conveyed personally to the governor in July and to the state's MX project director in December of 1980.

B. Physical, Social and Economic Impacts of MX

The special committee had originally intended a review of the Air Force's DEIS. That document was due out on July 18, 1980. In fact, it did not appear for public review until after Christmas. Much of what the committee heard concerning numbers of people brought into the deployment area; their service needs; their impact on the existing way of life; the demands for resources of land, water, labor and materials; the effects on the physical environment; and similar issues were speculative and imprecise. The pre-DEIS information was adequate to know that the physical, social and economic impacts on the state would be greater and more concentrated than anything since the building of Hoover Dam and MX would be bigger than that. By the same token, the committees recognized that Hoover Dam began when the state had 91,000 inhabitants, most of them in Reno. With some 800,000 people today, Nevada's economy has far greater absorptive capacity than it did in the early 1930's.

The cultural and physical impacts were tougher questions. There seemed to the committee that MX would change the present way of life in the small towns in the deployment area. Again, such change would not be all negative. Rapidly added population would almost surely increase social pathologies as it has in the energy boomtowns. The need for young people to leave the rural areas in order to find decent jobs, however, would be greatly reduced by the good employment opportunities offered by MX both during construction and in the operational phase which should last 30 years.

The physical impacts of MX are also mixed. While there are no obvious benefits to massive construction activities across semi-arid and flora-fragile desert, certain benefits could be seen there too. The DEIS rather completely catalogues the physical impacts. They are more easily predicted than the social, economic and cultural impacts. The committee felt that the federal responsibility for mitigating the physical impacts of MX is clear. Again, some physical impacts may be positive. While the cluster roadways will be of limited use to anyone but the Air Force, the improved cluster connecting roads will run from

Dugway in Utah down to Milford and in Nevada from north central White Pine county down to Clark county and from the Utah border to the west of Tonopah. There will be several thousand miles of improved roads connecting rural areas. Wells drilled by the Air Force and used for construction will become available after construction for agricultural and commercial uses not now possible because of the cost of drilling deep wells.

While the committee endorses and supports the efforts of the state MX office and the Local Oversight Committee to analyze the DEIS and quantify accurately all possible negative impacts for which federal aid should be provided, it also encourages an accurate and complete analysis of every benefit that could accrue to the state from MX.

Because the DEIS came out so late, the committee offers no specific observations or recommendations regarding impacts. It is recommended that state agencies and other review groups analyzing the DEIS insure that it is complete and accurate but that they also be sensitive to all possible benefits of the system and that these too be identified.

C. Nevada Law and Structure of Government and MX

In February 1980, Mr. Russell W. McDonald was contracted with by the governor with the charge to review Nevada law and identify provisions that might prove inadequate or burdensome to the state or local governments in moving to react to MX impacts. The governor agreed to Mr. McDonald also reporting the results of his review to the special committee. That report was made to the committee on December 2, 1980. Mr. McDonald's complete report is found at Appendix B.

The committee felt that Mr. McDonald's review and recommendations were thorough and responsive to the purpose of his review. They endorsed his proposal for a bill with two additions. The proposed legislation at Appendix A is drafted in a somewhat different approach than Mr. McDonald's proposed bill. Substantively, however, the only differences are additions made by the committee. The proposed bill in BDR 48-519 provides for the issuance of temporary water permits so that the control of water developed by the Air Force for construction purposes will revert to the state after construction. Such a provision will prevent the transfer of water rights by the Air Force to another

federal agency. The second committee addition is a temporary moratorium on the creation of new cities under the general law provisions of chapter 265 of NRS.

The summary of recommendations at the front of this report reflects the main provisions in BDR 48-519. Explanation for the recommendations is found in Appendix B.

APPENDICES

	<u>Page</u>
Appendix A - Suggested Legislation.....	10
Appendix B - Report of Russell W. McDonald "Comments and Suggested 1981 State Legislation Prompted by Federal Assistance Required to MX, A National Defense Project.....	17
Appendix C - Issue Brief IB77080, Congressional Research Service, "MX Intercon- tinental Ballistic Missile Program".	44

APPENDIX A

SUMMARY--Provides for temporary water permits for construction purposes, grants additional powers to political subdivisions and municipal corporations. (BDR 48-519)
Fiscal Note: Effect on Local Government: No.
Effect on the State or on Industrial Insurance: No.

AN ACT relating to government; providing for temporary permits to appropriate water for construction; granting powers to the State of Nevada, certain of its officers and political subdivisions to accept grants of money and other property and acquire land from the Federal Government to provide facilities necessary for carrying on community life substantially expanded by the deployment of the MX missile project in the State of Nevada; changing the provisions for branch county jails; suspending the population requirement for the incorporation of a city; and providing other matters properly relating thereto.

THE PEOPLE OF THE STATE OF NEVADA, REPRESENTED IN SENATE AND
ASSEMBLY, DO ENACT AS FOLLOWS:

Section 1. NRS 534.120 is hereby amended to read as follows:

534.120 1. [Within an] The state engineer may, within any
area that has been designated by [the state engineer, as provided
for in this chapter] him where, in his judgment, the ground water
basin is being depleted, [the state engineer in his administrative
capacity is herewith empowered to] make such rules, regulations
and orders as are deemed essential for the welfare of the area
involved.

2. In the interest of public welfare, the state engineer [is
authorized and directed to] shall designate preferred uses of

water within the respective areas so designated by him and [from which the ground water is being depleted, and in] when acting on applications to appropriate ground water he may designate [such] preferred uses in different categories with respect to the particular areas involved within the following limits: Domestic, municipal, quasi-municipal, industrial, irrigation, mining and stock-watering uses.

3. The state engineer may [:] within an area pursuant to subsection 1:

(a) Issue temporary permits to appropriate ground water which can be limited as to time and which may be revoked if and when water can be furnished by an entity such as a water district or a municipality presently engaged in furnishing water to the inhabitants thereof.

(b) Deny applications to appropriate ground water for any purpose in areas served by such an entity.

(c) Limit depth of domestic wells.

(d) Prohibit the drilling of wells for domestic use, as defined in NRS 534.010 and 534.180, in areas where water can be furnished by an entity such as a water district or a municipality presently engaged in furnishing water to the inhabitants thereof.

4. For good and sufficient reasons the state engineer may exempt the provisions of this section with respect to public housing authorities.

5. If an application to appropriate ground water within any area whether or not designated as one where ground water is being depleted, includes among the intended beneficial uses construction not related to the diversion of the water appropriated, the state engineer shall issue a temporary permit for the quantity to be so used, limited to the estimated time of completion of the construction, and every such permit is automatically revoked without notice upon expiration of the time specified in the permit.

6. Any holder of a temporary permit may file a written application for an extension of that permit with the state engineer. Upon good cause shown, the state engineer may extend that permit but any extension is limited by the provisions of subsection 5 and paragraph (a) of subsection 3.

Sec. 2. NRS 211.090 is hereby amended to read as follows:

211.090 1. A board of county commissioners or metropolitan police commission may establish a branch county jail in any [town] township in the county [,] except the township containing the county seat, if in its judgment the public needs require it, and provide that persons charged with or convicted of a misdemeanor in [such town or other town or townships] the township mentioned in the order [shall] must be imprisoned in [such] the branch county jail instead of in the county jail at the county seat.

2. Any judge or justice of the peace before whom [such] a conviction may be had may order that a prisoner be imprisoned in the county jail of the county wherein such conviction may be had if the public safety or the safety of such prisoner requires it.

Sec. 3. NRS 211.110 is hereby amended to read as follows:

211.110 The board of county commissioners or the metropolitan police commission may direct the jailer of such branch county jail to work the prisoners on the [public streets of such town or on the] public roads of the county where the branch county jail is located.

Sec. 4. NRS 265.020 is hereby repealed.

Sec. 5. The operation of NRS 265.010 is suspended until July 1, 1983.

Sec. 6. In addition to its powers conferred by general law, the board of trustees of a school district may, on behalf of the school district:

1. Purchase or otherwise acquire from the Federal Government and its agencies and instrumentalities all or any portion of available land near an MX missile deployment site or sites at intervals during any period when such purchase or other acquisition may be made as provided by the Congress of the United States, including any extension of time.

2. Accept the benefit of any Act of Congress providing financial assistance for school districts affected by the deployment of the

MX missile project in this state without reference to any regulation of the state board of education concerning the provision of assistance by the Federal Government.

Sec. 7. 1. Notwithstanding the provisions of any other law:

- (a) The board of county commissioners of any county;
- (b) The governing body of an incorporated city;
- (c) The governing body of an unincorporated town;
- (d) The board of trustees of a general improvement district;
- (e) The state department of conservation and natural resources;
- (f) The governing body of a county fire protection district;
- (g) The board of directors of a flood control district; and
- (h) The governing head of a conservation district,

may exercise the powers specified in subsection 2.

2. The powers conferred by this section are:

(a) To accept grants from the Federal Government and its agencies and instrumentalities for the purpose of providing county facilities necessary for carrying on community life substantially expanded by the deployment of the MX missile project in this state.

(b) On behalf of the governmental agency, purchase or otherwise acquire from the Federal Government and its agencies and instrumentalities all or any portion of available land near an MX missile deployment site or sites at intervals during any period when such purchase or other acquisition may be made as provided

by the Congress of the United States, including any extension of time granted by the Secretary of the Interior, or otherwise.

Sec. 8. 1. This act shall become effective upon passage and approval.

2. Sections 6 and 7 of this act expire by limitation on July 1, 1983.

APPENDIX B

APPENDIX B

COMMENTS AND SUGGESTED 1981 STATE LEGISLATION PROMPTED BY FEDERAL ASSISTANCE REQUIRED TO RESPOND TO MX, A NATIONAL DEFENSE PROJECT

When the Nevada Legislature convenes in regular session on January 19, 1981, its members will encounter a challenge of enacting necessary legislation which will guarantee that the State of Nevada, its political subdivisions and municipal corporations have the authority to meet the full range of community facility and service needs which will be generated by a presidential decision on MX siting to be made, perhaps by May 1981.

Delays in the dissemination of the draft MX environmental impact statement, time required for its evaluation once the statement is released, plus congressional and presidential action to be taken will make it impossible for the 1981 Nevada Legislature to foresee precisely all of the specific legislation which will be required in the immediate future and during construction of the MX project estimated to be for a period of 10 years. The possibility of a lengthy legislative session demanded by other state problems adds to the uncertainty of the situation. In the past, Nevada governors have exhibited a reluctance to call the legislature into special session. Perhaps the 1981 regular session can enact a minimum of legislation prompted by MX, thus avoiding a special legislative session, and be able to prepare for 1983 action a legislative program in answer to federal MX legislation enacted following adjournment of the 1981 Nevada Legislature.

Congress has already enacted P.L. 96-418, which authorizes a program of defense project impact assistance aimed at streamlining procedures for federal aid, and has directed a further analysis by the President of alternatives for federal impact aid to the state and its political subdivisions. Critics of the cumbersome and rigid categorical aid system point out its obvious limitations when applied to the proposed MX project

A detailed examination of existing Nevada general and special statutes has been made for the purpose of determining (1) if present state law is sufficient to meet the anticipated socio-economic and environmental impacts of the location and construction of the missile program in Nevada and (2) if sufficient authority has been granted by the Nevada Legislature to the state's executive branch and Nevada counties, cities, unincorporated towns, school districts and special districts to develop appropriate capital improvement programs and accept federal moneys, whether funds may be derived from the categorical aid system or a proposed special congressional MX impact authorization. Comments on existing laws authorizing the state or its political subdivisions and municipal corporations to deal with the Federal Government follow:

State of Nevada

1. Governor's Powers.

In addition to the express grants of authority by the legislature to specific state officers and agencies to deal with the Federal Government hereinafter noted, NRS 223.210 appears to offer a solution to the MX problem on a state level. NRS 223.210 reads as follows:

223.210 Temporary authority of governor to act, expend money in certain situations; duties of legislative commission.

1. Whenever any Act of Congress, regulation promulgated by the President or from an executive department of the Federal Government, or decision of a court of the United States or of this state requires the governor to perform any act for which legislative authority is lacking, either absolutely or in the alternative of forfeiting a grant of money or other thing of value or of action by the requiring authority, and the legislature is not in session and cannot reasonably be called into special session, the governor may, with the approval of the legislative commission:

- (a) Perform the act required.
- (b) Direct an existing agency, board or commission to do the act required.
- (c) Accept money or some other thing of value from the Federal Government, and contract with respect to such acceptance.
- (d) Expend, for the purpose required, any money so accepted from the Federal Government or available to him from any nonstate source or from the emergency fund. Any expenditures from the emergency fund for the purposes provided in this subsection shall be first approved by the legislative commission.

2. The governor and the legislative commission shall report any action taken by them to the next session of the legislature, whether regular or special. Unless the legislature acts affirmatively to authorize the governor or some other agency, board or commission to do the act required, all authority conferred by this section expires by limitation on the 11th day after the final adjournment of such session. In case of such expiration, neither the governor nor any agency, board or commission may expend any money received pursuant to this section except as may be required by a valid contract executed prior to such expiration.

3. As used in this section, the phrase "cannot reasonably be called into special session" imposes a duty upon the governor to consider, among other things:

- (a) The importance of the act required in relation to state government as a whole;
- (b) The amount of money to be expended pursuant to this section in relation to the cost of a special session; and
- (c) The interval remaining before the next regular session.

2. State Department of Conservation and Natural Resources.

The powers and duties of the director are enumerated in NRS 232.-070. In subsection 2 he is required to approve contracts, agreements and applications for federal assistance. In subsection 4 (with exceptions for the state environmental commission and the state conservation commission), the director may enter into cooperative agreements with any federal agency in connection with studies and investigations pertaining to any activities of the state department of conservation and natural resources.

3. State Multiple Use Advisory Committee on Federal Lands.

NRS 232.151 creates this committee and empowers it, among other things, to consult with and solicit the advice of public and private users of land within Nevada which is under the jurisdiction of the Federal Government and to advise agencies of this state and of the Federal Government of the effect of the agencies' programs or regulations on the users of the land.

4. State Communications System.

NRS 233F.080 provides that no proposal for the state rather than the telephone industry to provide expansion of the telecommunications service, equipment or facilities provided to the State of Nevada may be carried out without the approval of the interim finance committee. By NRS 233F.131 the coordinator of communications is to provide for joint use by state and federal agencies of a consolidated communications system.

5. Nevada Housing Finance Law.

The housing division of the department of commerce is empowered by NRS 319.175, with the approval of the state board of finance, to acquire land from the United States and to sell the land for the purpose of development of housing for persons of low or moderate income. The housing division shall charge a price for the land which is equal to its cost of acquiring and transferring the land.

6. Administration, Control and Sale of State Lands.

NRS 321.001 requires, with exceptions, the division of state lands to acquire and hold in the name of the State of Nevada all lands and interests in land required by the state.

NRS 321.110 and 321.120 authorize the governor to accept lands offered by the Federal Government. They read as follows:

321.110 Acceptance of land grants by governor: Limitations and conditions.

1. Subject to the provisions of subsections 2 and 3, whenever, pursuant to the laws of the United States, any lands are offered to the State of Nevada by the United States Government or any department thereof, the governor is authorized, in his discretion, to accept the same and the possession and title thereof in the name of the State of Nevada and to take all necessary steps to comply with any requirement and condition mentioned in the offer. The governor shall have power, among other things, to execute agreements, to convey and reconvey lands by deeds of relinquishment and other deeds according to and in extension of the provisions of NRS 321.100.

2. The authority granted the governor in this section shall not involve the acceptance of title to more than 30,000 acres of lands that may be offered by the United States Government, nor shall it involve or extend to the relinquishment of claims or title to lands of value equal to the value of more than such 30,000 acres owned by the state, including the computed value or exchange value of such claims as the state may have or might advance against the United States Government or in compromise or settlement of any erroneous selections, charges or credits in the land accounts of the state and the United States.

3. It is hereby declared to be the policy of the legislature that the governor should first negotiate for the acquisition of such lands as an unconditional grant by the United States Government to the State of Nevada without other or further considerations, and that if the governor shall be unable to acquire such lands in the manner indicated, then he is authorized, in his discretion, to obtain such lands on the best terms available.

321.120 Acceptance of lands by governor for park, recreational or other public purposes; limitations on subsequent public sale.

1. The governor is authorized to accept on behalf of the state any conveyance by the United States Government, or by any person, firm, association, corporation or political subdivision or municipality of this state, whether it be by operation of statute, by United States patent, or by conveyance of the person, firm, association, corporation or political subdivision or municipality of this state, of lands for park, recreational or other public purposes.

2. Such acceptance may be made, through a written communication to the Secretary of the Interior, or the person, firm, association, corporation or political subdivision or municipality of this state, signed by the governor, and a copy of

the communication filed for recordation with the county recorder of the county or counties wherein the lands are located.

3. No lands so accepted pursuant to this section shall be subject to subsequent public sale.

NRS 321.335 provides the general procedure for the sale of state lands. If the MX project results in a grant of lands to the state between regular legislative sessions, the state land register, pursuant to NRS 321.339, could withhold from sale any such lands if he deems that the public interest so requires. If the Federal Government subsequently offers lands to the state, once identified, the legislature could follow the pattern of the Eldorado Valley Development Law (NRS 321.390 et seq.) enacted in 1957, and the Fort Mohave Valley Development Law (NRS 321.480) enacted in 1959.

7. Federal Lands.

The State of Nevada in 1947 by the enactment of the predecessor of NRS 328.030 provided that the consent of the state to the acquisition by the United States of any land or water right or interest therein desired for any purpose expressly stated in clause 17 of section 8 of article I of the United States Constitution can be given by a concurrence of a majority of the members of the Nevada tax commission, upon finding that such proposed acquisition, the method thereof and all other matters pertaining thereto are consistent with the best interests of the state. The right of taxation by the state and its municipal corporations is reserved. Conditions and requirements of consent to acquisition are specified in NRS 328.080.

In 1955 the legislature gave the state's consent, in accordance with clause 17 of section 8 of article I of the United States Constitution, to the acquisition by the United States by purchase, condemnation, lease, exchange or otherwise of any land in this state required by the Department of Defense or the then Atomic Energy Commission for the erection of bases, forts, magazines, arsenals, dockyards and other structures needed for defense or Atomic Energy Commission purposes as authorized by Act of Congress. See NRS 328.160 et seq., which is supplementary to NRS 328.030 et seq.

8. State Public Works Board.

The state public works board, pursuant to NRS 341.121 and 341.125, may contract in the name of the State of Nevada with the United States or any of its agencies or instrumentalities, to receive and expend by grant, loan or otherwise funds which may be made available by the United States or any of its agencies or instrumentalities. Usage of grants, with the approval of the interim

finance committee when the legislature is not in session or with the approval of the legislature, is specified in NRS 341.121. Construction management services must be utilized on capital improvement projects financed in part by the Federal Government if such services are required by any department or agency of the Federal Government.

9. Property Tax; Sales and Use Taxes.

NRS 361.157 and 361.159, set forth below, enacted in 1965, provide that exempt property is subject to taxation when leased to or used in business conducted for profit.

361.157 Exempt real estate subject to taxation when leased to, used in business conducted for profit; exceptions; taxation of right to receive electric power from exempt real estate.

1. When any real estate which for any reason is exempt from taxation is leased, loaned or otherwise made available to and used by a natural person, association, partnership or corporation in connection with a business conducted for profit, it is subject to taxation in the same amount and to the same extent as though the lessee or user were the owner of the real estate.

2. When any real estate which is exempt from taxation by reason of its public ownership is used for the generation of electric power, the value of any right to receive electric power directly from the exempt real estate by a natural person, association, partnership or corporation or by a political subdivision of any other state is taxable as though the holder of that right were the owner of the real estate in the same proportion which his right bears to the total of all rights to receive electric power generated through the use of that real estate.

3. Subsection 1 does not apply to:

(a) Property located upon or within the limits of a public airport, park, market, fairground or upon similar property which is available to the use of the general public;

(b) Federal property for which payments are made in lieu of taxes in amounts equivalent to taxes which might otherwise be lawfully assessed;

(c) Property of any state-supported educational institution;

(d) Property leased or otherwise made available to and used by a natural person, private association, private corporation, municipal corporation, quasi-municipal corporation or a political subdivision under the provisions of the Taylor Grazing Act or by the United States Forest Service or the Bureau of Reclamation of the United States Department of the Interior;

(e) Property of any Indian or of any Indian tribe, band or community which is held in trust by the United States or subject to a restriction against alienation by the United States;

(f) Vending stand locations and facilities operated by blind persons under the auspices of the bureau of services to the blind of the rehabilitation division of the department of human resources, regardless of whether the property is owned by the federal, state or a local government; or

(g) Leases held by a natural person, corporation, association, municipal corporation, quasi-municipal corporation or political subdivision for development of geothermal resources, but only for resources which have not been put into commercial production.

4. Taxes shall be assessed to lessees or users of exempt real estate and collected in the same manner as taxes assessed to owners of other real estate, except that taxes due under this section do not become a lien against the property. When due, such taxes constitute a debt due from the lessee or user to the county for which the taxes were assessed and if unpaid are recoverable by the county in the proper court of the county.

361.159 Exempt personal property subject to taxation when leased to, used in business conducted for profit; taxation of right to receive electric power from exempt personal property.

1. Personal property exempt from taxation which is leased, loaned or otherwise made available to and used by a natural person, association or corporation in connection with a business conducted for profit is subject to taxation in the same amount and to the same extent as though the lessee or user were the owner of the property, except for personal property used in vending stands operated by blind persons under the auspices of the bureau of services to the blind of the rehabilitation division of the department of human resources.

2. When any personal property which is exempt from taxation by reason of its public ownership is used for the generation of electric power, the value of any right to receive electric power directly from the exempt personal property by a natural person, association, partnership or corporation or by a political subdivision of any other state is taxable as though the holder of that right were the owner of the personal property in the same proportion which his right bears to the total of all rights to receive electric power generated through the use of that personal property.

3. Taxes shall be assessed to lessees or users of exempt personal property and collected in the same manner as taxes assessed to owners of other personal property, except that taxes due under this section do not become a lien against the personal property. When due, such taxes constitute a debt due from the lessee or user to the county for which the taxes were assessed and if unpaid are recoverable by the county in the proper court of the county.

NRS 372.340 (a part of the Sales and Use Tax Act) provides that state sales and use taxes apply to the gross receipts from the sale of tangible personal property to contractors purchasing such property either as the agents of the United States or for their own account and subsequent resale to the United States for use in the performance of contracts with the United States for the construction of improvements on or to real property. Similarly, taxes must be paid pursuant to NRS 374.345 (a part of the Local School Support Tax Law) and pursuant to any county ordinance imposing a city-county relief tax enacted pursuant to chapter 377 of NRS (City-County Relief Tax Law).

10. Nevada State Library.

The state librarian is authorized to accept and direct the disbursement of funds appropriated by any Act of Congress and apportioned to the state for library purposes. NRS 378.100.

11. Historic Preservation and Archeology.

Pursuant to 383.081 and 383.100, the administrator of the division of historic preservation and archeology of the state department of conservation and natural resources, subject to approval by the director of the department, may act for the state in dealing with the Federal Government or any of its agencies, instrumentalities or officers for the purposes of receiving financial assistance for planning, acquisition or development of historic preservation projects pursuant to the provisions of federal law. The division administrator may apply for grants from the Federal Government.

12. Education--State Administrative Organization.

Because of the specificity of NRS 385.100, the 1981 Nevada Legislature might well amend the section to provide an exemption for moneys received by any school district pursuant to the provisions of any Act of Congress providing financial assistance for local educational agencies in areas affected by the MX missile project. The conclusion of this report contains the proposed amendment.

13. State Parks.

Pursuant to NRS 407.067 the administrator of the division of state parks of the state department of conservation and natural resources, subject to the approval of the department director, may cooperate, financially or otherwise, and execute contracts with the Federal Government or any federal department or agency.

14. State Highways.

NRS 408.260, a part of the Highway and Roads Law, reads:

408.260 Federal lands: Construction and maintenance of highways; availability of federal funds.

1. The department is authorized to enter into contracts and agreements with agencies of the Federal Government in matters concerning the construction, reconstruction, improvement and maintenance of highways as provided in this chapter when such highways enter upon or traverse lands under the ownership or control of such federal agencies.

2. When federal moneys for such construction, reconstruction, improvement and maintenance have been appropriated and made available under Acts of Congress other than those acts described in NRS 408.245, the department is authorized to receive the same.

NRS 408.245 contains an acceptance by the state of the 1916 and 1921 federal acts relating to financial assistance in highway construction.

15. State Welfare Administration.

Nevada has assented to the purposes of the Social Security Act and to such additional federal legislation as is not inconsistent with chapter 422 of NRS. Also in 1965 Nevada accepted increased benefits of future congressional legislation. See NRS 422.260 and 422.265, which follow:

422.260 Acceptance of Social Security Act and federal funds.

1. The State of Nevada assents to the purposes of the Act of Congress of the United States entitled the "Social Security Act," approved August 14, 1935, and assents to such additional federal legislation as is not inconsistent with the purposes of this chapter.

2. The State of Nevada further accepts, with the approval of the governor, the appropriations of money by Congress in pursuance of the Social Security Act and authorizes the receipt of such money into the state treasury for the use of the department in accordance with this chapter and the conditions imposed by the Social Security Act.

3. The State of Nevada is authorized to accept, with the approval of the governor, any additional funds which may become or are made available for extension of programs and services administered by the department under the provisions of the Social Security Act. Such money shall be deposited in the state treasury for the use of the department in accordance with this chapter and the conditions and purposes under which granted by the Federal Government.

422.265 Acceptance of increased benefits of future congressional legislation. If, in the future, the Congress of the United States shall pass any law or laws that have the

effect of increasing the participation of the Federal Government in the Nevada public assistance or child welfare programs, either as relates to eligibility for assistance or otherwise, the director is authorized to accept, with the approval of the governor, the increased benefits of such congressional legislation; and the board may formulate such standards as are required by the Congress of the United States as a condition of acceptance.

16. Administration of Public Health.

The department of human resources, through the health division, may accept and direct the disbursement of funds appropriated by any Act of Congress and apportioned or allocated to the state for health purposes. NRS 439.015. The department of human resources acts as the state health planning and development agency and may accept and disburse money granted by the Federal Government pursuant to 42 U.S.C. §§ 300k to 300t, inclusive. NRS 439A.081. NRS 441.240 authorizes the state board of health to receive financial aid made available by any federal grant for venereal disease control.

17. Sanitation.

Particular attention is invited to the provisions of NRS 444.130 to 444.200, inclusive, relating to construction camps.

18. Water Controls; Air Pollution.

The Nevada Water Pollution Control Law provides in NRS 445.214 that the director (or his designee) of the state department of conservation and natural resources may cooperate with the Federal Government and qualify for, accept and administer loans and grants from the Federal Government.

Also the state department of conservation and natural resources, pursuant to NRS 445.473 and 445.474 relating to air pollution, may cooperate and contract with the Federal Government and, on behalf of the state, apply for and receive funds made available to the state for programs from any agency of the Federal Government under the Safe Drinking Water Act.

19. Health and Care Facilities.

Provisions of the Nevada Health Facilities Assistance Act (NRS 449.250 et seq.) authorize the department of human resources to accept on behalf of the state any grant made to assist in meeting costs and to make application to the federal agency for federal funds to assist in carrying out survey, planning and construction activities. The department of human resources is also authorized to receive federal funds in behalf of, and transmit them to, applicants.

20. Protection From Fire.

The state forester firewarden, with the approval of the director of the state department of conservation and natural resources, is authorized by NRS 472.043 to enter into contracts with federal agencies to establish and preserve forest and vegetative cover on forest or watershed lands. He may enter into agreements with the Federal Government, the United States Forest Service and the Bureau of Land Management.

21. Water.

NRS 533.025 states that the water of all sources of water supply within the boundaries of the state, whether above or beneath the surface of the ground, belongs to the public. Apparently the Air Force, notwithstanding prior federal assertions concerning sovereignty, has agreed to comply with the provisions of chapters 533 and 534 of NRS relating to appropriation of public waters. Attention is invited to the provisions of NRS 534.120 relating to temporary permits to appropriate ground water and the powers of the state engineer thereunder. The state engineer may recommend to the 1981 legislature appropriate amendments to chapters 533 and 534.

22. Flood Control.

The director of the state department of conservation and natural resources by NRS 543.030 is authorized to give all assurances and perform any other acts required by the Secretary of the Army and the Congress in connection with flood control projects in the state when and as directed by acts of the Nevada legislature. Prospective federal flood control projects which may have their genesis in the deployment of the MX missile in Nevada should not demand immediate legislative attention in 1981.

23. State Department of Agriculture.

In the administration of its various programs, the state department of agriculture may cooperate, financially or otherwise, and execute agreements with the Federal Government or any federal department or agency (NRS 561.245); and the department may accept, for programs administered by the department, money made available by any Act of Congress. NRS 561.255.

24. Labor and Industrial Relations.

NRS 607.125 authorizes the labor commissioner to accept, with the approval of the governor, grants of money from the Federal Government which may become or are made available for programs and services administered by the labor commissioner.

Chapter 615 of NRS (Vocational Rehabilitation) accepts the provisions and benefits of certain Acts of Congress providing for the promotion of vocational rehabilitation. NRS 615.210. Cooperation by the department of human resources with the Federal Government is authorized by NRS 615.230, and by NRS 615.240 the bureau of vocational rehabilitation in the rehabilitation division of the department of human resources is authorized to comply with requirements as may be necessary to obtain federal funds in the maximum amount and most advantageous proportion possible.

Counties

1. Justices' Courts and Jails.

An immediate need for a justice's court and a jail may arise during the construction phase of the MX project notwithstanding no need for a formal local government such as an incorporated city or unincorporated town. The board of county commissioners is empowered pursuant to NRS 257.010 to divide the county into a convenient number of townships. If the board determines that a new justice's court should be established, the board may create a new township. Pursuant to NRS 4.020 there must be one justice's court in each of the townships. The number of justices of the peace is determined by population.

A board of county commissioners (or metropolitan police commission) may establish a branch county jail in any town in the county as authorized by NRS 211.090. Since the need for a branch county jail might arise before the formation of a town, NRS 211.090 should be amended to eliminate the reference to "town." Suggested amendments to NRS 211.090 and 211.110 are contained in the conclusion of this report.

2. County Roads.

Boards of county commissioners are empowered to lay out, control and manage public roads and bridges within the county, in all cases where the law does not prohibit such jurisdiction, and to make such orders as may be necessary and requisite to carry its control and management into effect. NRS 244.155. By NRS 403.435 the board is authorized to enter into agreements with the appropriate federal agency for the use of federal funds to construct, improve or maintain roads, other than state highways. The share of any county in the cost of such cooperative road project is to be paid from county road funds; but donations may be accepted in lieu of appropriations from the county road funds.

3. Powers Relating to Improvements in Unincorporated Area.

A board of county commissioners, with some limitation, may exercise any of the powers in any unincorporated area within its county that a board of trustees of a general improvement district, if organized, would be permitted to exercise pursuant to the provisions of chapter 318 of NRS. NRS 244.157. For remarks concerning general improvement districts see "Special Districts" in subsequent portions of this report.

4. Medical Facilities and Services in Outlying Areas.

NRS 244.1605 empowers boards of county commissioners to establish, equip, maintain and staff limited medical facilities in the outlying areas of their respective counties to provide outpatient care and emergency treatment to the residents of and those falling sick or being injured in such areas.

5. Special County Census.

NRS 244.183 provides that a board of county commissioners may contract with the Bureau of the Census of the United States Department of Commerce to have a special census conducted under federal supervision.

6. County Hospital Construction Fund.

Subject to approval of the state board of finance, a board of county commissioners may create a county hospital construction fund to be used for county participation in the construction of a health facility pursuant to the provisions of the Nevada Health Facilities Assistance Act. NRS 244.263.

7. Donation of Property for Use and Benefit of County.

Boards of county commissioners are authorized by NRS 244.270 to control and manage the property, real and personal, belonging to the county, and to receive, by donation, any property for the use and benefit of the county.

8. Acceptance of Grants of Rights-of-Way or Permits Over Public Lands of the United States.

A board of county commissioners may apply for and accept grants of rights-of-way or permits and subsequent renewals of grants of rights-of-way or permits over, upon, under or through any land or interest in land owned by the United States and administered by the Secretary of the Interior through the Bureau of Land Management and by the Secretary of Agriculture with respect to lands within the National Forest System, pursuant to Title V of the Federal Land Policy and Management Act of 1976, and in connection

therewith may comply with federal regulations and stipulations consistent with Title V of the Federal Land Policy and Management Act of 1976 or any other applicable federal statute.

9. Reconveyance, Sale of Lands Donated or Dedicated for Public Purpose.

NRS 244.290, enacted in 1926, empowers a board of county commissioners to reconvey land donated and dedicated for certain public purposes or land held in trust for the public for public use.

10. County Fire Departments.

Pursuant to NRS 244.2961 et seq. and subject to certain restrictions, a board of county commissioners may organize, regulate and maintain a fire department. Boundaries of the service area may be altered by county ordinance.

11. Parks and Recreation.

A board of county commissioners is authorized by NRS 244.305 to acquire by gift or in any other manner parcels of land for park, recreational and memorial purposes; and by NRS 244.306 a board may operate and maintain swimming pools and other public recreational centers when they have been acquired by gift to the county. A county park and recreation commission created pursuant to NRS 244.3071 (power of creation being in a board of county commissioners of any county regardless of population) may have the power pursuant to NRS 244.30792 to acquire by gift property for recreational or park facilities. A county park commission, created pursuant to NRS 244.308 et seq. in a county having a population of 100,000 or more, may acquire suitable sites or grounds, or any interests therein, for any recreational or park facilities.

12. Ordinances Regulating Traffic in Federal Military Installations.

NRS 244.356 provides that a board of county commissioners of a county in which a federal military installation is located and where exclusive federal jurisdiction is no bar may enact ordinances regulating traffic upon the streets and alleys of residential and commercial areas within the boundaries of such federal military installation.

13. Water and Sewer Facilities in Counties of 250,000 or More.

A board of county commissioners of a county having a population of 250,000 or more has the power, outside of the limits of cities and towns, to acquire by gift water and sewer facilities such as water systems, water treatment plants, storm sewer or sanitary sewage collection systems and sewage treatment plants.

14. Financing of Public Improvements.

Chapter 244A of NRS includes a number of laws relating to the financing of public improvements. Pertinent portions of the chapter relate to the County Bond Law, the County Improvements Law, the County Sewage and Waste Water Law, federal aid for public improvements and county fair and recreation boards.

(a) County Bond Law (General Obligation Bonds). NRS 244A.057 specifies the general powers of a board of county commissioners. A board may "acquire" within the county certain projects including buildings, drainage and flood control, parks and streets. "Acquire," as defined in NRS 244A.015, means, among other things, a grant from the United States or any agency, instrumentality or corporation thereof.

(b) County Improvements Law (Assessment Bonds). NRS 244A.169 specifies the general powers of a board of county commissioners. A board may "acquire" within or without the county certain described projects. "Acquire," as defined in NRS 244A.077, means, among other things, a grant from the Federal Government. NRS 244A.201 provides for cooperative construction contracts between the county and the Federal Government.

(c) County Sewage and Waste Water Law. NRS 244A.455 et seq. applies to any county having a population of 250,000 or more and was enacted to maintain public health, welfare and orderly local government and designate the county as master agency within its territory for the collection, disposal and treatment of sewage and waste water. In addition the master agency is empowered to perform and require compliance with any and all areawide waste water planning which may be required by the state or Federal Government. NRS 244A.507 empowers the county to acquire sewage and waste water systems of the Federal Government and to accept contributions or loans from the Federal Government for the purpose of financing the planning, acquisition, improvement, equipment, maintenance and operation of any enterprise in which the county is authorized to engage and to enter into contracts with the Federal Government. Under NRS 244A.511, the county may contract with the Federal Government for a term not exceeding 50 years. NRS 244A.-513 authorizes acceptance of contributions or loans from the Federal Government. Development and implementation of an areawide waste management plan are provided for in NRS 244A.571 and 244.573.

(d) Federal Aid for Public Improvements. NRS 244A.575 to 244A.-595, inclusive, relate to county contributions and cooperation for federal aid. If federal aid becomes available for any public work, improvement or other public benefit within a county, the board of county commissioners may:

1. Upon petition signed by at least 10 percent of the qualified electors call an election and, if a majority of the votes cast is in favor of issuance of county bonds, issue such bonds; or

2. Adopt and publish a resolution authorizing county contributions and extending necessary cooperation to the Federal Government. Protests may be filed by county electors. If protestants aggregate in number 10 percent of the number of electors who voted in the county in the last general election for Representative in Congress, the county commissioners must call an election. A majority of the votes cast in favor of the proposed project is required before the board may proceed. [In the 1980 general election approximately 125,122 votes were cast in Clark County for the candidates for Representative in Congress.]

(e) County Fair and Recreation Boards. By NRS 244A.597 counties are authorized to acquire recreational facilities and buildings therefor; and by NRS 244A.619 county fair and recreation boards are authorized on behalf of the county to acquire by gift or grant recreational facilities.

Cities

1. In General.

Unless the Nevada legislature exercises its constitutional power (section 1 of Article VIII of the Nevada constitution) to create a "special charter" city in an area adjacent to the MX missile project, it appears that a new Nevada city will not immediately spring into existence. NRS 265.010 prohibits an unincorporated town from being organized as an incorporated city unless more than 250 electors residing within the town limits cast ballots at the general election last preceding the application for incorporation. This section appears to anticipate previous action of a board of county commissioners in creating an unincorporated town pursuant to the provisions of chapter 269 of NRS (Unincorporated Cities and Towns).

Chapter 266 of NRS, the general law for incorporation of cities, specifies the organizational procedure for a proposed city. A petition for incorporation to the district court must be signed by a majority of the qualified electors who are the owners of real property within the area proposed to be incorporated. This requirement would appear to be an obstacle to immediate incorporation of a city in an area adjacent or near to the MX missile project. Only when the Federal Government has conveyed public property to accommodate private interests could chapter 266 of NRS be utilized to create a city.

Also, chances of a city embracing the commission form of government immediately emerging appear to be doubtful. Under subsection 2 of NRS 267.030, whenever the qualified voters of an unincorporated area desire to adopt a commission form of government and so declare their desire by filing with the board of county commissioners a

petition having the signatures of one-fourth of the qualified voters voting at the last town or precinct election embraced in the area to be incorporated, the county commissioners must call an election for the purpose of electing 15 qualified electors to frame a city charter. In view of these provisions it is argued that the exercise of the powers in NRS 267.030 could not be accomplished until at least following the general election in 1982.

2. Powers and Duties Common to All Cities.

Although the MX missile project may not occasion immediate creation of a new city, the project's effect on existing Nevada cities may be substantial. The charters of the 12 Nevada cities incorporated by special legislative acts contain a paucity of power to deal with the impacts of the missile project. Special charters for:

Caliente (chapter 31, Statutes of Nevada 1971, as amended);
Carlin (chapter 344, Statutes of Nevada 1971, as amended);
Carson City (chapter 213, Statutes of Nevada 1969, as amended);
Elko (chapter 276, Statutes of Nevada 1971, as amended);
Gabbs (chapter 265, Statutes of Nevada 1971, as amended);
Henderson (chapter 266, Statutes of Nevada 1971, as amended);
Las Vegas (chapter 515, Statutes of Nevada 1971, as amended);
North Las Vegas (chapter 573, Statutes of Nevada 1971, as amended);
Reno (chapter 662, Statutes of Nevada 1971, as amended);
Sparks (chapter 470, Statutes of Nevada 1975, as amended);
Wells (chapter 275, Statutes of Nevada 1971, as amended); and
Yerington (chapter 465, Statutes of Nevada 1971, as amended)

represent (with the exception of special legislation for Carson City and Sparks) efforts of the 1971 Nevada legislature to standardize special charters. In rewriting the special charters, the 1971 legislature eliminated many of the city powers in the charters and enacted general legislation in chapter 268 of NRS applicable to all cities. The special charters contain in substance the following language:

Any powers expressly granted by this charter are in addition to any powers granted to a city by the general law of this state. All provisions of Nevada Revised Statutes which are applicable to cities * * * which are not in conflict with the provisions of this charter apply to the City of _____.

All of the special charters do contain a provision that the governing body of the city may "purchase, receive, hold, sell, lease, convey and dispose of property, wherever situated, for the benefit of the city, improve and protect such property, and do all other things in relation thereto which natural persons might do."

Pertinent sections of chapter 268 of NRS are discussed below:

(a) General powers of all cities. NRS 268.008 granting general powers to an incorporated city provides that a city may receive gifts and donations of all kinds of property, wherever situated, in fee simple, in trust or otherwise, for charitable or other purposes and do anything necessary to carry out the purposes of such gifts and donations with full power to manage, sell, lease or otherwise dispose of such property in accordance with the terms of such gift or donation.

(b) Capital Improvement Fund. With the approval of the state board of finance a city may accumulate any or all moneys received from the sale or lease of real and personal property, which property was transferred to the city by the Federal Government or one of its agencies without consideration, for the purpose of making future municipal capital improvements. NRS 268.045.

(c) Public Works. Governing bodies of cities are granted the power and authority by NRS 268.450 to accept loans or grants for the purpose of providing public works and equipment as provided in the Federal Defense Public Works Law (42 U.S.C. § 1532), including all amendments.

(d) City Bond Law; Consolidated Local Improvements Law. Governing bodies of cities are empowered by the City Bond Law (NRS 268.672 to 268.740, inclusive) to acquire both within and without the city certain projects (NRS 268.730). The Consolidated Local Improvements Law (chapter 271 of NRS), also applicable to unincorporated towns, relating to the issuance of special assessment bonds, empowers the governing body of a city to acquire certain public improvements both within and without the city. "Acquire" as defined by NRS 271.035 means a gift or grant from the Federal Government.

(e) Nevada Community Development Program Law. It is the purpose of the Nevada Community Development Program Law (NRS 268.745 to 268.761, inclusive) enacted in 1975 to provide for municipal participation in the federal program of community development block grants under the Housing and Community Development Act of 1974, as amended, and to vest in Nevada cities all powers necessary or appropriate to enable the cities to participate fully in such federal program and similar programs and to authorize the cities to perform services, activities, planning and other functions related to community development programs. Without arguing the point that the enactment of the Nevada Community Development Program Law could be construed to prevent Nevada cities from accepting federal MX impact grants other than through existing federal programs, it is suggested that additional legislation be enacted which would put any possible argument to rest. A draft suggestion is contained in the "Conclusions" portion of this report.

Provisions Relating to Both Counties and Cities

1. Interlocal Cooperation Act.

The Interlocal Cooperation Act (NRS 277.080 to 277.180, inclusive) permits local governments to contract with federal agencies for the joint exercise of powers. Such agreements have the status of interstate compacts. NRS 277.160.

2. Water and Sewer Revenue Bond Law.

NRS 350.350 to 350.490, inclusive, applies to counties, cities, unincorporated towns and general improvement districts. The law authorizes these governmental units to acquire by gift revenue-producing undertakings such as systems, plants, works, instrumentalities and properties used or useful in connection with:

(a) The obtaining of a water supply and the conservation, treatment and disposal of water for public and private uses; and

(b) The collection, treatment and disposal of sewage, waste and storm water.

The municipality may accept contributions or loans from the United States for the purpose of financing the cost of preliminary investigations, plans and specifications and construction, maintenance and operation.

3. Local Government Securities Law.

The Local Government Securities Law (NRS 350.500 to 350.720, inclusive) applies to counties, cities, towns and special districts and authorizes the governing body to accept grants of money or materials or property of any kind from the Federal Government upon such terms and conditions as the Federal Government may impose.

4. Local Government Budgets.

Limitation upon expenditures from the general fund imposed by NRS 354.5981 does not apply to money received from the Federal Government. NRS 354.5983.

Unincorporated Towns

Chapter 269 of NRS contains the basic statutes pertaining to unincorporated towns in Nevada. Miscellaneous provisions relating to unincorporated towns are found elsewhere in NRS. The unincorporated Town Government Law (NRS 269.500 to 269.625, inclusive), applies to an unincorporated town in any county having a population of 250,000 or more and to each unincorporated town in any other county upon the passage of an ordinance adopting the law by the board of county commissioners. Town services are specified

in NRS 269.575. Other methods of creation of an unincorporated town are provided by statute. Because there is apparently no specific statute authorizing the governing body of an unincorporated town to accept grants from the Federal Government and assuming that the MX missile project will at least induce a demand for some type of local government, a suggested draft statute is contained in the "Conclusions" portion of this report.

School Districts

1. Acceptance of Financial Assistance From Federal Government for Areas Affected by Federal Activities.

NRS 386.355 empowers a board of trustees of a school district to accept on behalf of and for the school district any moneys or property under two specific federal acts. If federal assistance for school districts is accomplished through new legislation recognizing the impact of the MX missile project rather than by amendment of Public Law 874--81st Congress, it is recommended that NRS 386.355 be amended to reflect such anticipated legislation. A draft amendment of the section is included in the "Conclusions" portion of this report.

2. Various Receipts From the Federal Government.

By NRS 387.050 the state board for vocational education may accept and adopt regulations or establish policies for the disbursement of money appropriated by any Act of Congress and apportioned to the State of Nevada for use in connection with the vocational education program. NRS 387.067 and 387.075 empower the state board of education to accept and adopt regulations or establish policies for the disbursement of money appropriated and apportioned to the state or the school districts under the Elementary and Secondary Education Act of 1965 and for use in connection with the school lunch programs. The county school district fund is composed of all money received from the Federal Government for the maintenance and operation of public schools plus other designated taxes and receipts. NRS 387.175. The county school district buildings and sites fund is composed of specified receipts including all moneys received from the Federal Government for the construction of school facilities. NRS 387.177.

Special Districts

1. General Improvement Districts.

Although a board of county commissioners may exercise any of the powers in an unincorporated area within its county that a board of trustees of a general improvement district, if organized, would be permitted to exercise pursuant to the provisions of chapter 318

of NRS (see NRS 244.159), the advent of the MX missile project in Nevada may make it desirable that a general improvement district or districts be organized by the board of county commissioners pursuant to chapter 318 of NRS. Pursuant to NRS 318.0953 in counties of 250,000 or more the board of trustees of the district is the board of county commissioners. In counties of less than 250,000 the board of county commissioners may elect to be the board of trustees. Basic powers which may be granted to a general improvement district are enumerated in NRS 318.116. NRS 318.160 authorizes the board of trustees to acquire, dispose of and encumber real and personal property and pursuant to NRS 318.339 a general improvement district may borrow money from the Federal Government. Chapter 318 of NRS apparently contains no specific grant of power to the board of trustees to receive grants from the Federal Government. A suggested amendment to the chapter is contained in the "Conclusions" section of this report.

2. Flood Control Districts.

The Flood Control District Law (NRS 543.160 to 543.830, inclusive) vests jurisdiction in the board of county commissioners to create flood control districts. The board of directors of a flood control district may, pursuant to NRS 543.450, (a) enter into agreements with the United States for joint acquisition, construction and operation of property of the district, and (b) cooperate with the United States and its officers and agencies in the construction of any work. NRS 543.480 and 543.540 authorize contracts with the United States. Specific authorization for a flood control district to accept grants from the Federal Government appears to be lacking, and it is recommended that an amendment of the Flood Control District Law be effected to add such power.

3. Conservation Districts.

The Conservation Districts Law (chapter 548 of NRS) provides for the organization of conservation districts by the state conservation commission. NRS 548.380 authorizes a conservation district and its supervisors to accept donations, gifts and contributions in money, services, materials or otherwise from the United States or any of its agencies and to participate in cost-sharing on federally financed projects.

4. Las Vegas Valley Water District.

Chapter 167, Statutes of Nevada 1947, creates the Las Vegas Valley Water District, and subsection 4 of section 1 thereof provides that the district has "the power to take by grant, purchase, gift, devise or lease, or otherwise, and to hold, use, enjoy, and to lease, or dispose of real or personal property of every kind within or without the district necessary or convenient to the full exercise of its power."

Conclusions

The governor and legislature of the State of Nevada are certainly not endowed with clairvoyance so that they can perceive with certainty what the Congress and the President may do with respect to the deployment of the MX missile and construction of the project in Nevada in the next few months. Notwithstanding an anticipated lengthy legislative session in 1981 it appears impossible to prepare and enact precise and possibly lengthy bills. Therefore, as indicated by the observations and recommendations contained in this report, the following proposed bill should be drafted in substantially the following form:

AN ACT granting powers to the State of Nevada, certain of its officers and to political subdivisions and municipal corporations of the state to accept grants of money and other property and acquire land from the Federal Government to provide facilities necessary for carrying on community life substantially expanded by the deployment of the MX missile project in the State of Nevada; and providing other matters properly relating thereto.

THE PEOPLE OF THE STATE OF NEVADA, REPRESENTED IN SENATE AND
ASSEMBLY, DO ENACT AS FOLLOWS:

Section 1. NRS 211.090 is hereby amended to read as follows:

211.090 1. A board of county commissioners or metropolitan police commission may establish a branch county jail in any [town in the county,] township in the county except in a township containing the county seat, if in its judgment the public needs require it, and provide that persons charged with or convicted of a misdemeanor in such [town or other town or townships] township mentioned in the order shall be imprisoned in such branch county jail instead of in the county jail at the county seat.

2. Any judge or justice of the peace before whom such conviction may be had may order that a prisoner be imprisoned in the county jail of the county wherein such conviction may be had if the public safety or the safety of such prisoner requires it.

Sec. 2. NRS 211.110 is hereby amended to read as follows:

211.110 The board of county commissioners or the metropolitan police commission may direct the jailer of such branch county jail to work the prisoners on the [public streets of such town or on the] public roads of the county where the branch county jail is located.

Sec. 3. Chapter 244 of NRS is hereby amended by adding thereto a new section which shall read as follows:

Notwithstanding the provisions of any other law, the board of county commissioners of any county in this state is granted the power and authority to:

1. Accept grants from the Federal Government and its agencies and instrumentalities for the purpose of providing county facilities necessary for carrying on community life substantially expanded by the deployment of the MX missile project in this state.

2. On behalf of the county, purchase or otherwise acquire from the Federal Government and its agencies and instrumentalities all or any portion of available land near an MX missile deployment site or sites at intervals during any period when such purchase or other acquisition may be made as provided by the Congress of the United States, including any extension of time granted by the Secretary of the Interior, or otherwise.

Sec. 4. Chapter 268 of NRS is hereby amended by adding thereto a new section which shall read as follows:

Notwithstanding the provisions of any other law, the governing body of an incorporated city in this state is granted the power and authority to:

1. Accept grants from the Federal Government and its agencies and instrumentalities for the purpose of providing city facilities necessary for carrying on community life substantially expanded by the deployment of the MX missile project in this state.

2. On behalf of the city, purchase or otherwise acquire from the Federal Government and its agencies and instrumentalities all or any portion of available land near an MX missile deployment site or sites at intervals during any period when such purchase or other acquisition may be made as provided by the Congress of the United States, including any extension of time granted by the Secretary of the Interior, or otherwise.

Sec. 5. Chapter 269 of NRS is hereby amended by adding thereto a new section which shall read as follows:

Notwithstanding the provisions of any other law, the governing body of an unincorporated town in this state is granted the power and authority to:

1. Accept grants from the Federal Government and its agencies and instrumentalities for the purpose of providing town facilities necessary for carrying on community life substantially expanded by the deployment of the MX missile project in this state.

2. On behalf of the town, purchase or otherwise acquire from the Federal Government and its agencies and instrumentalities all or any portion of available land near an MX missile deployment site or sites at intervals during any period when such purchase or other acquisition may be made as provided by the Congress of the United States, including any extension of time granted by the Secretary of the Interior, or otherwise.

Sec. 6. Chapter 318 of NRS is hereby amended by adding thereto a new section which shall read as follows:

Notwithstanding the provisions of any other law the board of trustees of a general improvement district in this state is granted the power and authority to:

1. Accept grants from the Federal Government and its agencies and instrumentalities for the purpose of providing district facilities necessary for carrying on community life substantially expanded by the deployment of the MX missile project in this state.
2. On behalf of the district, purchase or otherwise acquire from the Federal Government and its agencies and instrumentalities all or any portion of available land near an MX missile deployment site or sites at intervals during any period when such purchase or other acquisition may be made as provided by the Congress of the United States, including any extension of time granted by the Secretary of the Interior, or otherwise.

Sec. 7. Chapter 321 of NRS is hereby amended by adding thereto a new section which shall read as follows:

The state department of conservation and natural resources may, on behalf of the State of Nevada, purchase or otherwise acquire from the Federal Government and its agencies and instrumentalities all or any portion of available land near an MX missile deployment site or sites at intervals during any period when such purchase or other acquisition may be made as provided by the Congress of the United States, including any extension of time granted by the Secretary of the Interior, or otherwise.

Sec. 8. NRS 385.100 is hereby amended to read as follows:

385.100 1. The state board of education shall prescribe regulations under which contracts, agreements or arrangements may be made with agencies of the Federal Government for money, services, commodities or equipment to be made available to the public schools, subject to the supervision and control of the superintendent of public instruction.

2. All contracts, agreements or arrangements made by public schools in the State of Nevada involving money, services, commodities or equipment which may be provided by agencies of the Federal Government, must be entered into in accordance with the regulations prescribed by the state board and in no other manner.

3. This section does not apply to any money received by any school district in the State of Nevada pursuant to the provisions of:

(a) "An Act to provide financial assistance for local educational agencies in areas affected by federal activities, and for other purposes," being Public Law 874--81st Congress [; and] as that statute was enacted and may be amended;

(b) "An Act relating to the construction of school facilities in areas affected by federal activities, and for other purposes,"

being Public Law 815--81st Congress [, as these statutes were enacted and may be amended.] as that statute was enacted and may be amended; and

(c) Any Act of Congress providing financial assistance for school districts affected by the deployment of the MX missile project in this state, and as the same may be amended.

Sec. 9. NRS 386.355 is hereby amended to read as follows:

386.355 Each board of trustees may accept on behalf of and for the school district any moneys or property under the provisions of:

1. "An Act to provide financial assistance for local educational agencies in areas affected by federal activities, and for other purposes," being Public Law 874--81st Congress [; and] as that statute was enacted and may be amended;

2. "An Act relating to the construction of school facilities in areas affected by federal activities, and for other purposes," being Public Law 815--81st Congress [, as the same have been amended.] as that statute was enacted and may be amended; and

(c) Any Act of Congress providing financial assistance for school districts affected by the deployment of the MX missile project in this state, and as the same may be amended.

Sec. 10. Chapter 393 of NRS is hereby amended by adding thereto a new section which shall read as follows:

The board of trustees of a school district may, on behalf of the school district, purchase or otherwise acquire from the Federal Government and its agencies and instrumentalities all or any portion of available land near an MX missile deployment site or sites at intervals during any period when such purchase or other acquisition may be made as provided by the Congress of the United States, including any extension of time.

Sec. 11. Chapter 474 of NRS is hereby amended by adding thereto a new section which shall read as follows:

Notwithstanding the provisions of any other law the governing body of a county fire protection district in this state is granted the power and authority to:

1. Accept grants from the Federal Government and its agencies and instrumentalities for the purpose of providing fire fighting facilities necessary for providing fire protection to community life substantially expanded by the deployment of the MX missile project in this state.

2. On behalf of the district, purchase or otherwise acquire from the Federal Government and its agencies and instrumentalities all or any portion of available land near an MX missile deployment site or sites at intervals during any period when such purchase or other acquisition may be made as provided by the Congress of

the United States, including any extension of time granted by the Secretary of the Interior, or otherwise.

Sec. 12. Chapter 543 of NRS is hereby amended by adding thereto a new section which shall read as follows:

Notwithstanding the provisions of any other law, the board of directors of a flood control district in this state is granted the power and authority to:

1. Accept grants from the Federal Government and its agencies and instrumentalities for the purpose of providing district facilities necessary for protecting community life substantially expanded by the deployment of the MX missile project in this state.
2. On behalf of the district, purchase or otherwise acquire from the Federal Government and its agencies and instrumentalities all or any portion of available land near an MX missile deployment site or sites at intervals during any period when such purchase or other acquisition may be made as provided by the Congress of the United States, including any extension of time granted by the Secretary of the Interior, or otherwise.

Sec. 13. Chapter 548 of NRS is hereby amended by adding thereto a new section which shall read as follows:

Notwithstanding the provisions of any other law, the governing body of a conservation district in this state is granted the power and authority to:

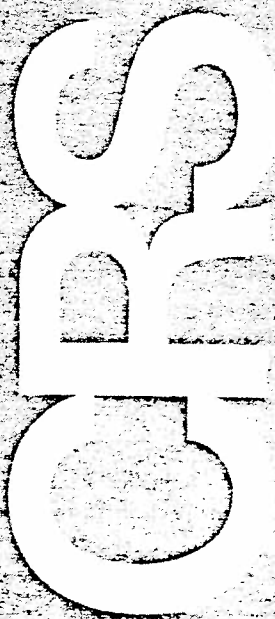
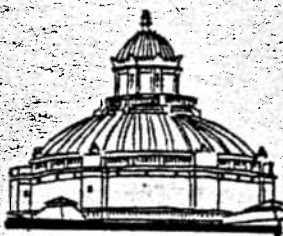
1. Accept grants from the Federal Government and its agencies and instrumentalities for the purpose of providing facilities necessary for carrying on community life substantially expanded by the deployment of the MX missile project in this state.
2. On behalf of the district, purchase or otherwise acquire from the Federal Government and its agencies and instrumentalities all or any portion of available land near an MX missile deployment site or sites at intervals during any period when such purchase or other acquisition may be made as provided by the Congress of the United States, including any extension of time granted by the Secretary of the Interior, or otherwise.

Sec. 14. This act shall become effective upon passage and approval.

RUSSELL W. McDONALD
November 26, 1980

APPENDIX C

Issue Brief



CONGRESSIONAL
RESEARCH
SERVICE
LIBRARY OF
CONGRESS

STATE MX OFFICE		
DATE	11/11/11	COMMENTS
STB		
PGC		
RAI		
DW		
FC		
PR		
Mgmt. C.		
File		

MX INTERCONTINENTAL BALLISTIC MISSILE PROGRAM

ISSUE BRIEF NUMBER IB77080

AUTHOR:

Medalia, Jonathan E.

Foreign Affairs and National Defense Division

THE LIBRARY OF CONGRESS

CONGRESSIONAL RESEARCH SERVICE

MAJOR ISSUES SYSTEM

DATE ORIGINATED 06/29/77
DATE UPDATED 11/05/80

FOR ADDITIONAL INFORMATION CALL 287-5700

ISSUE DEFINITION

The land-based and mobile MX Intercontinental Ballistic Missile (ICBM) is designed to be the most lethal and survivable strategic ballistic missile in the world. It is being developed by the U.S. Air Force to augment the capabilities and survivability of the presently deployed ICBM force, which together with Submarine Launched Ballistic Missiles (SLBMs) and manned strategic bomber aircraft, form the triad of U.S. strategic nuclear offensive forces.

On June 7, 1979, President Carter announced his decision to proceed with full-scale development of a 192,000-lb. MX, the largest design proposed. On Sept. 7, Carter announced plans to deploy MX in the so-called "racetrack" basing mode; each missile would move among 23 horizontal shelters connected by a closed loop road. The system would have 200 missiles, 200 racetracks, and 4,600 shelters. The system could be expanded or contracted in response to changes in the Soviet ICBM force. On Apr. 29 and May 6, 1980, Defense Department officials indicated that the basing mode proposal would be modified, using linear rather than oval roads, different vehicles, smaller shelters, no unmanned dash capability, and mass simulators.

For FY81, the Air Force is requesting \$1.551 billion for MX research and development, and \$114.1 million for military construction, of which \$97.0 million is for designing facilities to be constructed in FY82 and FY83.

The debate over the MX program focuses on need, cost, lethality, basing mode, environmental impact, arms control implications, land acquisition difficulties, and alternatives.

[See OTHER CONGRESSIONAL ACTION section for forthcoming MX events.]

BACKGROUND AND POLICY ANALYSIS

EARLY HISTORY

MX technology was generated by the Advanced ICBM Technology Program, which, as originally proposed, was to investigate methods to extend the life and increase the capabilities of the Minuteman ICBMs. However, in 1971 the Strategic Air Command (SAC) documented the requirements for an advanced ICBM, and an Advanced Development Program for the MX began in late 1973 as part of the Advanced ICBM Technology Program.

In planning future ICBM force effectiveness, SAC envisioned three separate but complementary requirements for the MX: quantity and quality of its warheads; continued ICBM force survivability; and maintenance of strategic superiority, or at least "rough equivalence," with respect to the Soviet strategic forces.

The design specifications called for a large ICBM possessing the following qualities: large throw-weight (to partially correct the asymmetry in throw-weight when compared to Soviet ICBMs); high survivability (mobile, and hardened to sustain shock and electromagnetic pulse (EMP) caused by enemy attack on its launch sites); high accuracy (to enhance the lethality of its

nuclear warheads against hard targets); and more Multiple Independently Targetable Reentry Vehicles (MIRVs) per missile as compared with the Minuteman III.

The MX program was officially started by the Air Force in 1974 as a four-year technology exploration effort to provide new propulsion and guidance systems toward the development of an advanced ICBM for the 1980s and beyond.

PURPOSE AND DESCRIPTION OF THE MX ICBM

Department of Defense (DOD) officials claim that MX will provide a more survivable and capable land-based ICBM than those currently deployed. DOD asserts that without MX, a Soviet first strike against the U.S. ICBMs in the 1980s may leave the U.S. ICBM force with too few warheads surviving for an effective retaliatory strike; with MX, U.S. ICBM capability will enable a devastating retaliation.

The MX will be smaller than the Soviets' largest ICBM, the SS-18, but will have military capability equivalent or superior to the SS-18. MX will be larger than the Minuteman III. Added throw-weight, accuracy, nuclear hardness, and mobility are the chief features of the MX design. It will have a 92-inch-diameter body, three solid-propellant stages, a liquid-fueled post-boost vehicle, and a gimballess Advanced Inertial Reference Sphere (AIRS).

The MX guidance system, the heart and brains of which are AIRS and a microminiaturized computer, will retain its accuracy after being transported and stored horizontally. This feature will contribute to its readiness. The guidance system is installed so that components can be replaced without first removing the reentry vehicle bus as is done on the Minuteman III.

The Air Force is developing ballistic and maneuvering reentry vehicles for the MX through the Advanced Ballistic Reentry Systems (ABRES) Program. Two reentry vehicles (RVs) are under consideration for MX — the Mk-12A and the advanced ballistic reentry vehicle, with yields estimated at 335 and 500 kilotons, respectively. While MX is expected to carry 10 Mk-12As, "it will be designed to carry twelve Mk-12A RVs or eleven Advanced Ballistic Reentry Vehicles should the SALT II limit of ten RVs not be obtained," according to Lt.Gen. Kelly Burke, USAF Deputy Chief of Staff for Research, Development, and Acquisition. In contrast, the Minuteman III carries three Mk-12 RVs of about 170-kiloton yield, though the Mk-12s on 300 of the 550 Minuteman IIIs currently deployed are being replaced with Mk-12As. Each Mk-12A, combined with the MX's accuracy improvements, is estimated to provide a hard-target "lethality" (K) 6.29 times that of each of the Mk-12 RVs on the currently deployed "Accuracy-Improved" Minuteman IIIs, and 4.0 times that of the Mk-12A RVs on "Accuracy-Improved" Minuteman IIIs.

The following table summarizes the estimated general characteristics of the most important U.S. and Soviet ICBMs currently deployed or being deployed, and the dates of their Initial Operational Capability (IOC).

ESTIMATED CHARACTERISTICS OF SELECTED U.S. AND SOVIET ICBMs.

Designation	U.S.		U.S.S.R.		
	MINUTEMAN III	MX	SS-18	SS-19	SS-16
IOC	1970	1986	1977 (a)	1977	1977
Length (ft)	59.7	70.5	121.4	65.2	65.6
Diameter (ft)	6.0	7.7	9.8	8.2	8.2
Stages	3	3 (b)	2	?	?
Weight (lbs)	77,900	192,000	?	?	?
Propellant	solid	solid (b)	liquid	liquid	solid
Guidance	inertial	inertial	inertial	inertial	inertial
Launching Mode	hot	cold	cold	hot	hot
Basing Mode	silo	(c)	silo	silo	silo/mobile
Throw Weight (lbs)	2,200	7,500	16,000	7,500	2,000
Range (nm)	5,000	6,000+	5,500+	5,000+	5,000+
MIRVed	yes	yes	yes	yes	no
No. of RVs	3	10 (d)	8-10	6	1
Yield/RV (mt)	0.17 (e)	0.335 (d)	0.6	0.55	0.1
CEP (nm)	0.12 (e)	0.05	0.25	0.20	over 0.25
Lethality K/RV (f)	21.3 (e)	192.9	11.4	16.8	below 16
Lethality K/DV	63.9 (e)	1929.0	91-114	100.7	below 16

Glossary:

IOC: initial operational capability.

Throw weight: weight of payload (nuclear weapons, weapon shielding for reentry, penetration aids, etc.) of the missile.

nm: nautical miles (6,080 ft.).

MIRVed: carries multiple independently targetable reentry vehicles.

RV: reentry vehicle.

Yield: explosive force of a weapon.

mt: megaton, a measure of yield equal to the explosive force of one million tons of TNT.

CEP: circular error probable, a measure of accuracy; if large numbers of the same type of warhead from the same type of missile were shot at a single point target, the CEP would be the radius of the circle within which half the warheads landed.

K: see note (f).

DV: delivery vehicle (e.g., an ICBM).

Notes:

- (a) IOC for the SS-18 Mod I, estimated to carry one 18-25 mt RV, was in 1974. Its CEP is estimated at 0.25 nm, and its lethality at 109.9-136.8.
- (b) The post-boost vehicle, which maneuvers to guide the individual RVs after the three main stages burn out, is liquid fueled.
- (c) In May 1980, the Administration decided to base MX in horizontal loading dock shelters connected by linear roads. See text for details.

- (d) MX is designed to carry 11 Advanced Ballistic Reentry Vehicles (yield: about 0.5 mt apiece) or 12 Mk 12A RVs (yield: 0.335 mt).
- (e) Armed with Mk-12 RVs. The current force is composed of "accuracy-improved" Mk-12 RV armed Minuteman IIIs, with CEP of 0.10 nm and a lethality of 30.7 per RV and 92.1 per DV. Armed with the Mk-12A, of yield 0.335 mt, lethality is estimated at 48.2 per RV and 144.7 per DV.
- (f) Lethality (K) is directly proportional to the 2/3 power of yield in mt, and inversely proportional to the square of CEP in nm.
- (?) Not known.

BASING MODE — BACKGROUND

It is widely believed that the Soviets will be able to destroy 90% or so of U.S. ICBMs in the early 1980s. On Aug. 20, 1980, Defense Secretary Brown said they may already "threaten our fixed Minuteman silos." This anticipated vulnerability arises because the ICBMs are based in fixed silos, and because Soviet ICBM accuracy is increasing. If U.S. ICBMs were made mobile, the threat posed to them by accurate Soviet ICBMs would be reduced. Congress has therefore insisted repeatedly over the past few years that any new U.S. ICBM be based only in a mobile mode.

The United States has considered more than 30 mobile basing modes since the early 1960s. Most fall into two categories: (1) free mobile systems, in which missiles are moved on trains, trucks, aircraft, submarines, etc., over large areas, often hundreds of thousands of square miles, and are not tied to fixed shelters; and (2) multiple protective structure (MPS) systems, in which missiles are shuttled among a large number of shelters.

Many MPS systems have been considered. Chief variations include type of shelter (vertical, like current ICBM silos, or horizontal, like garages); type of security (area, in which the public is fenced out of the entire multi-thousand square mile deployment area, and point, in which only the few acres surrounding each shelter are fenced); means of transporting missiles (train, truck, etc.); and location of roads or railroads (above ground or underground).

The United States has considered MPS systems more seriously than free mobile systems. Recent prime candidates have included air-mobile (a free mobile system) and hardened trenches, vertical shelters, horizontal shelters, and trenches with removable roofs (all MPS).

National policy holds that guaranteeing a specific (classified) number of U.S. ICBM RVs will survive a Soviet preemptive attack will deter that attack. To provide this guarantee, any MPS system seeks to force the Soviets to target more shelters than they have RVs available for the purpose. MPS thus requires a confident estimate of the number of Soviet ICBM RVs and some means of keeping the Soviets from targeting only those shelters containing missiles.

MPS also requires that U.S. shelters greatly outnumber Soviet RVs available to attack it. If the Soviets can attack each shelter with only one RV, they could, according to a Congressional Budget Office (CBO) estimate, destroy slightly over 80% of the shelters — and about the same fraction of missiles and warheads housed in them. (This estimate is for 1990; the MX system is expected to be completed in 1989). Thus, says CBO, "an MPS basing system is 'indivisible' in the sense that the Congress could not reduce the size of the proposed shelter construction program without jeopardizing the primary purpose of the system." A corollary is that a system sized to a specified number of Soviet ICBM RVs enables progressively fewer U.S. RVs to survive as the Soviet threat increases. Therefore, the U.S. would need to deploy more shelters, more missiles, more warheads per missile, or an antiballistic missile system if the Soviets deploy more ICBM RVs, if U.S. confidence in its estimate of Soviet RVs deployed declines, or if the U.S. believes that the Soviets know which shelters will hold MXs when Soviet RVs arrive.

A final requirement is that the system be verifiable. A guiding principle of the Strategic Arms Limitations Talks is that each side must be able to monitor those strategic systems of the other side that are covered by SALT treaties. SALT II places numerical limits on various categories of strategic weapons, and the U.S. is expected to seek to maintain or reduce such limits in SALT III. Clearly, if a particular category of weapon cannot be counted, it cannot be limited regardless of the provisions contained in the SALT II treaty, as long as verification is confined to "national technical means" (NTM.) Yet the MX/MPS system requires some limit on Soviet RVs. If the Soviets deploy an MPS system that cannot be verified, the U.S. would feel compelled to deploy enough MX and shelters to cope with the worst case. Thus the design of the U.S. MPS system seeks to convince the Soviets that the U.S. will design verifiable strategic weapons and that the U.S. will expect the Soviets to do likewise.

BASING MODE -- RECENT DEVELOPMENTS

The basing mode for the MX has aroused great controversy in the areas being considered for its deployment, because of its impact on them. It would use vast amounts of land and water, would bring tens of thousands of workers and their dependents to the construction area, and, residents fear, would jeopardize the region's resources and way of life. Members of Congress, governors, and the Air Force have responded to these concerns in various ways.

Because Nebraskans feared that MX would be based in their state and would consume much farmland, Rep. Smith of Nebraska offered a "sense of the Congress" amendment to the FY79 Defense Department supplemental authorization that MX should be based "on the least productive land available that is suitable for such purpose." The amendment passed, and the bill was signed into law (P.L. 96-29, 93 Stat. 79) on June 27, 1979. Rep. Santini of Nevada estimated that 70% of the system would be based on his state, and was concerned that it would have a large impact there. Accordingly, he offered on Sept. 13, 1979, an amendment to the FY80 Defense Department authorization bill, H.R. 4040, preventing more than 25% of the MX shelters from being located in any one state. The amendment was defeated, 289-84.

On Sept. 7, 1979, President Carter announced his decision to base MX in the so-called "racetrack" MPS system. Under this plan, each missile would be deployed on its own closed-loop roadway, and would move among the 23 shelters attached to this road. The plan envisioned 200 racetracks with 4,600 shelters. The shelters would resemble garages flush with the ground; missiles would be stored horizontally in them. Point security would be used to avoid fencing off thousands of square miles of public land. The Air Force's preference is to base the system in the Great Basin area of Nevada and Utah; most of the missiles would be deployed in Nevada.

The racetrack system was expected to have substantial impact on Nevada's land, water, environment, and people. Preliminary estimates were that it would require about 50,000 construction personnel, the fencing off of 25 square miles of land, a deployment area of roughly 30,000 square miles, the use of 121 billion gallons of water for construction and 20-year operation, and so on.

Many Members of Congress support the MX missile but questioned the

racetrack basing mode. This position is reflected in two Senate votes of Nov. 9, 1979. The Senate defeated, 77-11, an amendment by Senator Hatfield to delete the \$670 million in R&D funding for MX and to spend \$20 million studying an alternative basing mode (placing ICBMs on small submarines to be deployed in U.S. coastal waters). The Senate also adopted, 89-0, an amendment by Senator Stevens to the FY80 DOD appropriations bill. This amendment states: "None of the funds appropriated under this paragraph to continue development of the MX Missile may be used in a fashion which would commit the U.S. to only one basing mode for the MX missile system."

In letters of Apr. 29 and May 6, 1980, Secretary of Defense Harold Brown and Under Secretary of Defense William Perry indicated that certain changes would be made in the basing mode for MX, including:

Different vehicles: Previously, one vehicle was to transport, erect, and launch the missile, while another was to shield the first vehicle from observation during peacetime movement of the missile. Now, the missile will be placed on an unpowered erector-launcher that will slide in and out of shelters. A transporter vehicle will carry the missile and erector-launcher between shelters while shielding them from observation.

Shelters: The shelters will be somewhat smaller, since they need to accommodate only the missile and erector-launcher rather than the missile and a considerably larger transporter-erector-launcher.

Road configuration: Linear rather than oval ("racetrack") roads will link the shelters.

Dash: The new system will have no capability for automated (unmanned) dash from one shelter to another during the flight time of an ICBM. The missile, transporter, and erector-launcher can, however, be placed on the roadway in a crisis and can dash into a shelter during an ICBM's flight time. If the crew is properly prepositioned, the missile can be manually dashed between shelters during an ICBM's flight time.

Mass simulators: It is theoretically possible for the Soviets to determine which shelters hold missiles by measuring the differences in masses between empty and occupied shelters. This possibility can be guarded against by placing in each shelter an object weighing the same as the missile and its transporter-erector. In the earlier basing mode, mass simulators were contemplated; now, they are to be used.

These changes will reduce the impact on the deployment area. The new system is expected to require 10% less roadway. It will use fewer valleys; on the other hand, since the number of shelters will remain unchanged, the new system will place more shelters in the valleys that are used. The Air Force has not calculated the precise requirements for construction workers, water, cement, etc., for the system, but estimates that these requirements will be reduced, perhaps on the order of 10-20%.

While precise costs have not been determined, the savings achieved by the

reduction in requirements for this system are expected to be offset by the decision to deploy mass simulators.

The modification of the basing mode has not stilled criticism of the MPS system. On June 16, 1980, Governor Matheson of Utah issued a statement criticizing the basing mode. (Reprinted in Congressional Record, July 2, 1980: S9212-14.) He argued that the MX/MPS is "fatally flawed" because it does not redress until 1990 or so the ICBM vulnerability that will soon confront the U.S., and because "it is quite possible that the present MX deployment scheme will be obsolete before it is completed." He urged serious consideration of making Minuteman III mobile and basing it in an expanded number of shelters as an interim measure, defending silos with antiballistic missiles, and using the shallow underwater mobile (SUM) missile concept. He concluded, "I cannot support deploying the MX missile system in Nevada/Utah in the proposed horizontal multiple protective structure mode."

Congress has continued to express reservations about MPS. On June 27, the House passed H.R. 7592, the FY81 military construction appropriation bill, 308-17. The bill does fund planning and design of MX basing facilities (\$97.0 million) and MX R&D facilities (\$17.0 million), as requested. At the same time, it seeks to modify the system or mitigate its impacts in several ways. It provides \$4 million to assist States and communities in MX deployment sites plan for mitigating MPS impact. It prohibits spending funds for designing site-specific facilities for MX until all requirements of the National Environmental Policy Act are met, including "a complete analysis of a split basing alternative." It prohibits using funds for designing an area security system (in which the public would be excluded from large areas of land) for MX. The committee, in its report, also required a plan to identify MX construction work force impacts, and requested an examination of large grids (in which 10 or 12 missiles would be moved among perhaps 250 shelters rather than moving one missile among 23 shelters) and of eliminating SALT verification ports.

On July 2, the Senate passed H.R. 6974, the FY81 DOD authorization bill, with a section 202 of Title II (Research, Development, Test and Evaluation) added by the Senate Armed Services Committee. This section calls for the MX/MPS to reach initial operational capability by Dec. 31, 1986, for the initial phase of shelter construction to be limited to 2,300 shelters, and for the Secretary of Defense to submit to the Armed Services Committees by Feb. 1, 1981, a plan for minimizing adverse impacts of MPS on the host areas and a study on basing sites other than Nevada and Utah. The conference committee, in H.Rept. 96-1222, incorporated these Senate provisions while recommending that Congress commit to deploying the 200-missile, 4,600-shelter MX system as soon as practicable, that the system reach its initial operational capability by Dec. 31, 1986, and that a system of at least 4,600 shelters may be deployed in the initial deployment area if Congress determines that split basing is precluded. The House and Senate approved the conference report on Aug. 26; the measure was signed into law on Sept. 8.

On Sept. 16, the House rejected, 256-141, an amendment by Rep. Simon to H.R. 8105, the FY81 DOD appropriation bill. The amendment sought to prevent spending funds on R&D for a basing mode for MX before Apr. 1, 1981.

MX, SALT, AND ABM

The baseline MX system calls for 200 missiles to be deployed in 4,600 shelters. These numbers were chosen to make use of the SALT II cap on numbers of Soviet reentry vehicles (RVs). It has been recognized that, should the Soviets deploy more RVs than SALT II permits -- whether by abrogation or expiration of SALT II or if the treaty does not come into force -- something will have to be done to improve MX survivability. One option is to expand the MX system. Under Secretary of Defense William Perry observed in Sept. 1979 that "In reaction to a high Soviet buildup assuming SALT II never goes into effect, the MX program would require 400 missiles and 13,500 shelters at a cost of \$59 billion in constant FY80 dollars." Until early 1980, these expansions were viewed as unlikely.

With the reduced prospects for SALT II, however, some CIA estimates envision a massive increase in numbers of Soviet RVs, from roughly the 6,000 ICBM RVs they would be expected to have under SALT II to 14,000, 20,000, or even 30,000 by 1990, a year after MX deployment is scheduled to be completed, according to various press reports. A 14,000-RV force would permit the Soviets to attack each of 9,200 MX shelters, with the number of MXs destroyed dependent primarily on Soviet ICBM reliability. (Congressional Budget Office assumes that reliability to be 85%.) Under those circumstances, many question the survivability of MX based in any form of MPS.

A 9,200-shelter system would encounter problems. It would be costly. The 4,600-shelter system is facing considerable opposition in Utah and Nevada. The Soviets could deploy additional RVs, requiring us to build still more shelters. Accordingly, the Air Force is examining a way to avoid proliferating shelters by defending MX missiles with antiballistic missiles (ABMs). The argument is twofold: ABM technology has advanced far beyond what it was in 1967-72, when the U.S. considered deploying ABMs; and ABM defense of MX would be far less costly than simply building more shelters because of a concept known as preferential defense. The Soviets, attacking an MPS system, would not know which shelters held missiles, so would be forced to attack them all. The U.S., however, could intercept only those RVs headed for MXs. To be assured of destroying an MX in a 23-shelter racetrack defended by a single ABM interceptor missile, then, the Soviets would need to launch two waves of 23 RVs each. This unfavorable exchange ratio, it is claimed, would deter attack.

Several officials have indicated interest in ABM defense of MX, as follows:

- Brigadier General Guy Hecker, USAF Special Assistant on MX Matters, estimated that for about \$55 billion we could respond to a Soviet buildup with a 9,200-shelter MX system and an ABM on each racetrack. (Washington Star, Feb. 6, 1980.)
- Major General Grayson Tate, Jr., Ballistic Missile Defense Program Manager, testified that the new thrust of the Army's ABM program "is a generic Low Altitude Defense (LOAD) system whose primary purpose is to provide a rapidly deployable option to defend our ICBM capability" with particular value for MX. (Senate Committee on Armed Services hearing, Mar. 12, 1980.)
- William Perry, Under Secretary of Defense for Research and Engineering, testified that "there is another option available beyond open-ended shelter construction. After some additional shelter construction, perhaps doubling the number of shelters in the baseline, it would in principle be highly

cost-effective to go to ballistic missile defense." (Senate Committee on Armed Services hearing, Mar. 12, 1980.)

- Aviation Week and Space Technology of Oct. 27, 1980, quotes a "high-level Pentagon official" as saying:
"There are a growing number of us who are coming to the conclusion that BMD [ballistic missile defense] might be the answer" to MX survivability in an acceptable basing mode.

A report of June 1980, "Ballistic Missile Defense -- A Quick-Look Assessment," highlights the potential role of ABM in defending MX. (The report was prepared by Los Alamos Scientific Laboratory, one of the two U.S. nuclear weapons laboratories, and is reprinted in the Congressional Record, June 6, 1980: S6428.) Regarding MX, the report argues as follows: A defense of ICBMs is technically feasible and could be deployed by 1990. A force of MX and Minutemen based in silos and defended by ABM would be far more cost-effective than a force of MX based in MPS. For example, the report estimates that a \$33 billion force of 200 MX, 4,600 shelters, and 800 Minutemen in silos would permit 510 RVs to survive an attack by 5,000 arriving RVs. (Note that Minutemen are already deployed; their cost is excluded from figures in this paragraph.) For \$22 billion or so, the U.S. could deploy 200 MX in 200 silos and defend them and 800 silo-based Minutemen with an ABM. Up to 2,300 RVs would survive the 5,000-RV attack. Against an attack by 10,000 arriving RVs, an undefended system of 400 MX and 9,200 shelters, costing \$56 billion, the force of 200 MX and 800 Minutemen deployed in silos and defended with an augmented ABM would permit up to 2,300 RVs to survive.

An ABM defense of MX would also solve a political problem, the impact of the MPS system on the deployment area. Residents of the Great Basin area of Nevada and Utah, the deployment site favored by the Air Force, are intensely concerned that MX/MPS will: use vast amounts of land and water; bring tens of thousands of workers and dependents into the area, disrupting the local way of life; threaten even larger impacts if the number of shelters must be increased to respond to Soviet threats; and threaten to close substantial amounts of land to the public if the Air Force deems that course of action necessary to preserve uncertainty about the location of the missiles. A system of 200 MX missiles in 200 silos defended by ABMs would minimize or eliminate these potential impacts, thus making that MX system more predictable and much less objectionable than MX/MPS to residents of the basing area.

The prospect of using ABM to improve ICBM survivability, reduce cost, and minimize impact on the basing area poses a momentous question: Should the United States renegotiate or abrogate the SALT I ABM Treaty of 1972? That treaty, as modified by a 1974 protocol, permits the U.S. and U.S.S.R. to deploy 100 fixed-site ABM interceptor missiles over a 150-kilometer (93-mile) radius area. These limits would prevent the U.S. from deploying a mobile ABM (which is under consideration for defending MX) and from deploying an ABM to defend each of the 200 MX. Moreover, the proposed deployment area extends beyond a 300-km. diameter circle. Defense Department officials recognize that an effective ABM defense of MX would require the renegotiation or abrogation of the ABM treaty, but note: the U.S. has no intention of deploying an ABM at present; the current "R&D only" program is permitted; and the program, in permitting the rapid deployment of an ABM should the need

arise, acts to deter the Soviets from building the large number of RVs needed to attack MX.

Critics respond that the ABM treaty is the most valuable arms limitation agreement yet ratified because, in capping one side of the offense-defense equation, it permits both nations to avoid worst-case fears of an open-ended arms race. Using one complex system to defend another would lead to high cost and questionable dependability. We would be better off, they argue, deploying a system whose survivability is not linked to Soviet willingness to limit their ICBM forces.

COST

According to William Perry, Under Secretary of Defense for Research and Engineering: "Acquisition of the MX system is estimated to cost about \$33 billion in FY80 dollars. This includes development, production, and installation. Operating costs will be \$440 million per year." The peak funding year is expected to be FY85, with \$8.5 billion in then-year dollars. The system can be expanded or contracted according to changes in the Soviet threat. Perry noted that a program of 300 missiles and 6,900 shelters would cost another \$8 billion, and that reduced numbers of Soviet ICBMs would enable a reduction in MX/MPS costs.

The Air Force estimated total costs of the racetrack system as of Jan. 28, 1980, as follows (figures are in then-year dollars, i.e., unadjusted for inflation):

Research, development, test, and evaluation: \$9.69 billion.
(Includes, inter alia, 20 developmental flight tests of the missile).

Military construction: \$20.71 billion.

Aircraft procurement: \$573 million (includes 37 aircraft for security forces).

Missile procurement: \$20.73 billion. (Includes 330 missiles -- 200 deployed and the remainder for operational test and evaluation and spares; transporter-erector-launcher vehicles; visibility shield vehicles; command, control, and communications; physical security of missile sites; cranes to remove observation ports from shelters; measures to prevent the Soviets from detecting missile location; and reentry systems. Warheads are excluded, as they are funded by the Department of Energy.)

Total cost in then-year dollars: \$51/7 billion.

Total cost in FY80 dollars: \$33.8 billion.

Basic procurement cost of a single missile: \$12 million (FY80 \$).

The revised MPS system with horizontal loading dock shelters and linear roads permits some cost savings because it uses smaller shelters and

less land. These savings, however, are approximately offset by the decision to use mass simulators in the new system; while simulators were an option for the racetrack system, no decision was made to use them in that system so they were not added to its cost.

On June 27, 1980, Rep. McKay presented a table estimating the total military construction costs for MX, FY80-89, at \$21.78 billion. (The table breaks out these funds by function -- planning and design, R&D of facilities, and construction -- and by year. It is reprinted in the Congressional Record, June 27, 1980: H5800.)

The funds appropriated for the MX program through FY80 and those requested for FY81 are shown in the following table.

APPROPRIATIONS FOR THE MX ICBM PROGRAM*
(in millions of dollars)

	Funds Appropriated Through FY79	Supplemental Funds Requested For FY79	Funds Appropriated For FY80	Funds Requested For FY81
RDTEE	452.0**	265.0	670.0	1,551.0
Procurement	--	--	--	--
MIL				
Construction	--	--	57.0	114.1
Totals	452.0**	265.0	727.0	1,665.1

* Does not include the cost of developing the nuclear warheads, which are separately funded through appropriations for the Department of Energy. Also does not include funds to aid MX deployment areas.

** Some funds budgeted under the Advanced ICBM Technology Program. Excludes FY79 supplemental request.

SCHEDULE

The current schedule calls for the first MX flight test in January 1983. Shelter construction is to begin in early 1984. Initial operating capability (operational deployment of the first 10 MX) is to be in September 1986. Deployment of the entire system is to be completed in September 1989.

The protocol to SALT II would, if ratified, prohibit through Dec. 31, 1981, the deployment of mobile ICBMs, deployment of mobile launchers, and flight testing of mobile ICBMs from mobile launchers. Flight testing of MX

from non-mobile launchers, however, would be permitted. Since the missile will not be ready for flight testing until 1983, the protocol will not affect MX.

It is uncertain if MX can be deployed as scheduled. Land withdrawal -- obtaining permission to use public lands -- is a cumbersome, time-consuming process even for a government agency. Many state and federal laws, regulations, and executive orders govern a host of actions concerning land withdrawal, endangered species, water quality, air quality, wild horses and burros, etc. These laws set up a great many requirements that a land withdrawal request must meet, such as environmental impact statements and a mineral survey. The Engle Act of 1958 (P.L. 85-337) requires an Act of Congress for any withdrawal of over 5,000 acres of public land by the Defense Department for defense purposes. In addition, coordination within the executive branch and public hearings are standard procedure. Because of fear that the project may be delayed either by the need to meet all these requirements or by lawsuits, the Air Force is considering asking Congress to pass legislation minimizing the delay from these and other sources. Senator Proxmire inserted a draft of this legislation, prepared by the Air Force, into the Congressional Record (Dec. 7, 1979: S18073-S18076).

ISSUES

The MX program is highly controversial. Salient issues include its need, cost, warhead lethality, environmental impact, and its arms control implications.

Need

Proponents justify the program, as follows:

- The MX will narrow the U.S./U.S.S.R. ICBM throw-weight asymmetry.
- The Soviets have developed the SS-16 ICBM which is predicted to have a fixed-site and land-mobile capability.
- The MX is needed as a counterforce weapon capable of destroying targets such as the reloadable silos basing the cold-launched SS-17s and SS-18s.

Critics respond:

- The Soviet advantage in ICBM throw-weight is of minor importance, and MX proponents overestimate Soviet missile accuracy.
- The United States currently has many thousands of independently targetable strategic nuclear weapons (about 50% more than the U.S.S.R. has) -- more than enough to target any foreseeable increase in the number of potential strategic targets in the Soviet Union.
- The hardening of potential Soviet targets can be dealt with by: (a) deploying MK-12A RVs on Minuteman IIIs; (b) increasing the navigation accuracy of our ballistic-missile launching submarines through the use of the Global Positioning System; and

(c) deploying the Trident II SLBM and the cruise missile.

- The Soviets could not deploy the SS-16 in a mobile mode through 1981 if, as proposed by the U.S., mobile ICBMs are to be banned during the life of the SALT II Protocol.

Cost

Critics argue:

- The MX will be the most expensive strategic weapon systems ever developed by the United States, surpassing the DOD's cost estimate of the B-1 bomber.
- Although ICBMs traditionally have been the least expensive leg of the strategic triad to maintain, the MX system will be very expensive to operate, requiring more maintenance, security, and launch personnel per missile than Minuteman.
- For a fraction of the cost of the MX program we could deploy thousands of land-based nuclear-armed cruise missiles in the NATO countries, and balance the Soviet deployment of the SS-20 intermediate range ballistic missiles (IRBMs).
- A less expensive and more survivable alternative to the MX is to deploy additional ballistic missile-launching submarines or the shallow underwater mobile (SUM) system.
- A more survivable and less costly basing mode, such as the vertical multiple protective structures system, should be used.

Proponents of the MX system respond:

- The survivability and other characteristics of the MX system make its cost justifiable.
- The maintenance, security, and operational costs of the MX system will not be greater than for other systems of similar complexity.
- Strategic cruise missiles, although less expensive than MX, are too slow for attacking time-critical targets such as ICBM silos and are too vulnerable to terminal defenses.
- Although SLBMs currently offer an attractive alternative to the MX in terms of lower initial cost and reduced vulnerability, (a) their submarine launchers are at times unavailable for responding against time-critical targets; (b) SLBMs are less reliable and accurate than ICBMs (c) SLBMs are more expensive to maintain than ICBMs; and (d) if the survivability of the U.S. ICBMs is not improved and the Soviets develop ASW techniques that would neutralize the sea-based of the U.S. strategic triad, we could be placed in a position of strategic inferiority.
- The expense of constructing alternate basing for our ICBMs will eventually have to be incurred if the U.S. is to reduce the vulnerability of its ICBMs to the Soviet strategic offensive

counterforce weapons such as the SS-18s and SS-19s.

Warhead Lethality

Perhaps the most significant controversy born from the development and proposed deployment of the MX missile is the predicted accuracy of its warheads — a basic ingredient of its lethality. Lethality is a quantitative measurement that denotes the hard-target capability possessed by a nuclear weapon. In the past the Soviets have derived a respectable degree of lethality from their ICBMs by arming them with high-yield warheads (i.e., the SS-9 carries one 25 MT RV). The new generation of Soviet ICBMs, however, have considerable improvements in accuracy and throw-weight over their predecessors. In contrast, U.S. efforts to increase the lethality of its ICBMs has primarily consisted of accuracy improvements to all of the Minuteman IIIs, and the substitution of some of the MK-12 MIRVs with higher-yield MK-12A MIRVs.

Critics of the high accuracy being designed into the MX argue:

- The MX is a counterforce weapon for destroying the Soviet ICBM silos, because each of its 10 RVs will have sufficient lethality to crush 3000 psi-hardened targets (the maximum compressive strength of concrete, the parent material of silos, is about 3000 psi) with a kill probability of about 98.2%.
- The anti-silo capability designed into the MX is inconsistent with the U.S.-proclaimed policy of deterrence by threat of assured-destruction retaliation, because a hard-target counterforce capability is only necessary for supporting preemptive-attack or first-strike postures.

Advocating the superior hard-target capability of the MX, over that to be possessed by Minuteman III, are those proponents who suggest:

- With the exception of bomber-deliverable nuclear weapons, the U.S. does not have an adequate and much needed capability for destroying such targets as dams, underground military and industrial depots, super-hardened command and control facilities, and other similarly critical targets in the Soviet Union.
- We must, following a Soviet ICBM-launched first-strike against our ICBMs, be capable of destroying their residual ICBM forces at their bases while retaining enough of our ICBMs to deter a follow-on attack against our cities.

Environmental Impact

Environmentalists are concerned over the impact the construction of thousands of missile shelters, and their access roads, will have on the ecology.

Critics of the MX program argue:

- The deployment of the MX in a land-mobile mode will invite the Soviets to increase the yield and number of RVs in their ballistic missiles, therefore increasing the collateral damage to the environment in the event of a strategic nuclear war with the

U.S.

- Roving erector-launcher missile transporters, over 150 feet long, 12 feet high, 15 feet wide, and having a combined weight of over 650,000 pounds, crawling along the countryside to and from the shelters under heavy military escort, and carrying the MX missiles loaded with fuel and armed with nuclear warheads, will "have an adverse effect" on the quality of life of the surrounding communities.

Proponents for the deployment of the MX in a land-mobile mode counter the critics allegations by emphasizing:

- The shelters for the MX and their access roads will be constructed on government-owned land at sites as far away as practical from human and animal habitats and environmental resources.
- The transportation of the MX missiles to and from the shelters will not diminish the quality of life more than similar size and weight coal-hauling commercial trucks cruising along a country road, but may instead create jobs.

Arms Control Implications

MX supporters contend:

- Strategic stability with the Soviet Union requires the U.S. to have a "limited counterforce" capability sufficient to deter them from attacking.
- The "limited counterforce" strategic doctrine adopted by the U.S. provides an alternative to the employment of the strategic forces other than for a suicidal attack on Soviet cities.
- The new generations of Soviet ICBMs, particularly the SS-18s, undercut the credibility of the U.S. countervalue capability. continued U.S. unilateral restraint in the deploying weapons with some counterforce capability, such as the MX, will be destabilizing.
- Deploying MX in a more survivable mode than fixed silos is necessary because of the vulnerability of silos.
- A DOD projection of Soviet ICBM characteristics and U.S. ICBM vulnerability shows that a destabilizing counterforce imbalance could result by the mid-1980s if the U.S. does not increase the accuracy and reduce the vulnerability of its ICBMs.
- The development and initial deployment of the MX might persuade the Soviets to halt the modernization of their silo-based ICBMs, and not to deploy the SS-16 in a mobile mode.
- If both the U.S. and the U.S.S.R. want strategic nuclear weapons for deterrence only, both should: (a) deploy an equally limited and verifiable number of mobile ICBMs to permit each nation to

safeguard the survivability of its ICBMs regardless of the quality improvements made to the other side's missiles, and (b) scrap all other ICBMs as the mobile ICBMs become operational.

Critics argue:

- The Soviets will view MX as permitting a U.S. first strike. They will respond by increasing their forces and preparing to launch on warning of attack. These steps will increase the risk of Soviet attack.
- The current Soviet strategic initiatives react to U.S. programs such as the deployment of MIRVs, accuracy improvements to Minuteman IIIs, re-arming of Minuteman IIIs with MK-12A MIRVs, and development of cruise missiles and MX.
- A "limited counterforce" response to a Soviet first strike would result in tens of millions of deaths, blurring the distinction between the counterforce and countervalue deterrence.
- We need not panic over fear of theoretical Minuteman vulnerability. Many technical problems prevent the Soviets from destroying all Minutemen simultaneously. Moreover, simultaneous destruction of all three elements of the triad is impossible because of the way it was designed.
- Continuing the development of the MX may discourage the Soviets from agreeing on limiting their strategic arms, and encourage them to:
 - (a) deploy more SS-18s, SS-19s, and SS-17s than currently projected;
 - (b) increase the number of MIRVs on their missiles; and (c) deploy land-mobile SS-16s.
- The mobile MX, if deployed will severely damage arms control efforts because it will be difficult to verify through national technical means.
- The deception of the MX basing mode is irreconcilable with the SALT requirement of verifiability.

Alternatives

Over the last decade, the U.S. has considered about 30 modes for basing ICBMs. The Administration argues that a land-based ICBM is vital to U.S. security, and that the currently proposed basing mode offers the best combination of survivability, verifiability, affordability, consistency with current and future SALT negotiations, and minimal environmental and social impact. Some critics believe MX and its basing mode are too costly and that deployment will take too long. They urge an interim deployment of Minuteman III in vertical silos and, if required by the Soviet threat, defending ICBMs with antiballistic missiles. Some taking this position feel we should proceed with MX, while others believe that we should deploy ABM to defend existing ICBMs and deploy new missiles at sea. Another school of thought believes no land-based system is workable: it will cost too much, be deployed too late, require endless expansion if the Soviets add to their ICBM force, and, if the Soviets attack, will draw Soviet missiles to U.S.

territory that will create fallout over much of the U.S. These critics argue that we should move our missiles to sea; some favor deploying more Trident submarines, while others advocate the use of much smaller submarines (the shallow underwater mobile, or SUM, missile concept).

The rest of this CRS issue brief is omitted. It deals with all legislation affecting MX, primarily appropriations and authorizations acts.