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Remarks:


 Executive Secretary
 11/17/82
 Date

3627 (16-81)

NSC review completed.

USAF review completed.

SYSTEM II

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NATIONAL SECURITY COUNCIL

WASHINGTON, D.C. 20505

Executive Registry
82-13082/1

CONFIDENTIAL

November 17, 1982

MEMORANDUM FOR

Mr. Donald Gregg
Assistant to the Vice President
for National Security Affairs

Mr. Thomas B. Cormack
Executive Secretary
Central Intelligence Agency

Mr. L. Paul Bremer III
Executive Secretary
Department of State

Ms. Jacqueline Tillman
Executive Assistant to the U. S.
Representative to the United Nations

Colonel John H. Stanford
Executive Secretary
Department of Defense

Colonel George A. Joulwan
Executive Assistant to the
Chairman
Joint Chiefs of Staff

Dr. Alton Keel
Associate Director for National
Security and International Affairs
Office of Management and Budget

Mr. Joseph Presel
Executive Secretary
Arms Control and Disarmament Agency

Dr. George A. Keyworth
Director, Office of Science
and Technology Policy

SUBJECT: NSC Meeting on M-X (C)

Attached is the summary of the Defense-prepared Legislative Environmental Impact Statement on Closely Spaced Basing, which will be among the materials provided to the President on this subject. It supplements the background materials provided earlier for your use in preparing for the National Security Council meeting scheduled for Thursday, November 18, 1982, in the Cabinet Room to discuss M-X. (C)

Michael O. Wheeler

Michael O. Wheeler
Staff Secretary

Attachment

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DECLASSIFY ON: OADR

C-124

SUMMARY

PROGRAM OVERVIEW

Purpose and Need

The United States Air Force proposes to deploy an advanced, land-based, intercontinental ballistic missile (ICBM) system known as M-X to improve the nation's strategic deterrent force. In fulfilling its mission, the Air Force is dedicated to meeting national defense goals while conserving natural and human resources. In April 1982, the Armed Services Committee of the Senate requested the Secretary of Defense to deliver, not later than December 1, 1982, a report on the missile development and basing mode selection. An Initial Operational Capability (IOC) of 1986 has been established.

Previous environmental impact statements on M-X have dealt with five basing modes:

The purpose of this Legislative Environmental Impact Statement (LEIS) is to identify and compare potential impacts of M-X deployment in the [redacted] mode in alternative geographic locations. As previous environmental impact statements have revealed, environmental effects for a given basing mode can only be analyzed in the context of a particular geographic area. This LEIS deals with potential environmental effects on: Quality of Life, Biology, Air Quality, Transportation, Energy and Utilities, Hydrology and Water Quality, Mining and Fossil Fuels, Socioeconomics, Land Use, American Indians, and Cultural Resources. It is prepared in accordance with Council on Environmental Quality (CEQ) regulations implementing the National Environmental Policy Act.

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System Description

[redacted] may be constructed. [redacted] Similarly, [redacted]

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(Note: For purposes of the environmental analysis, the DA is assumed to be [redacted] This figure is used to account for potential site variations in terrain, shape of suitable area, and capsule layout geometry. The analysis yields worst-case impacts.)

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In addition, support facilities are required at a nearby military installation (OB). Although an existing military installation will support M-X, some additional facilities will be required onbase for technical and personnel support. The facilities associated with the deployment area module, [redacted] are shown in Figure 1.

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Selection of Alternatives

System design dictates that certain minimum criteria must be met in order for the system to operate effectively. These criteria include operational, geotechnical, and topographic factors. Application of these and other criteria throughout the United States resulted in the identification of alternative siting areas (Figure 2). These areas could be supported by one of the following DOD installations: F. E. Warren Air Force Base, Cheyenne, Wyoming; Cannon Air Force Base, near Clovis, New Mexico; Nellis Air Force Base/Indian Springs Auxiliary Air Field near Las Vegas, Nevada; and Hawthorne Army Ammunition Plant in west central Nevada. Because the suitable DAs for Nellis AFB and Indian Springs AAF are similar and close together, and because they are both dependent on Las Vegas and Clark County, the two OBs have been analyzed together. However, where specific differences occur as in hydrology, mining, and biology, the direct impacts on each of these resources are discussed within the full LEIS for each of the two locations.

System Deployment, Operation, and Decommissioning

Construction is expected to start in early 1984, and to be completed by late 1989. The earliest construction will be for facilities needed first or requiring a long time to complete. These include the technical facilities at the [redacted]

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The [redacted] requires the longest construction period with intense activity throughout the construction phase. Construction at the OB will also begin in 1984, but is expected to be most intensive in 1985 and 1986. Subsequent to 1986, the major construction effort will be in the [redacted]. Construction activities include erection of several types of buildings, road and utility construction, drilling and tunneling, and construction of below-surface reinforced-concrete structures. Following facility construction, equipment must be installed and checked to assure that it will function properly.

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Long-term system operations involve status monitoring, routine maintenance, repair of failed units, continuous training, and security. Once a missile is in a capsule, it generally will be [redacted]. The [redacted]

operational [redacted]

This expectation is based upon experience with the [redacted]

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M-X decommissioning would entail a variety of physical, socioeconomic, and environmental consequences. All decommissioning actions would be in strict compliance with the laws applicable at the time.

COMPARISON OF ENVIRONMENTAL CONSEQUENCES

Quality of Life

Quality of life has been used as a general concept to describe personal satisfaction derived from the total setting in which people live. Here, the quality of life impact assessment is concerned with those factors that disrupt primary group relationships, the sense of participation in, and control of civic affairs, and those factors that erode or eliminate local residents' roles in decisionmaking and their sense of well-being.

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The quality of life in the candidate [] would potentially be affected by project-related increases in employment and population. The total employment impacts of the project would range from 10,000 to 12,000 jobs in the DA, depending upon the precise characteristics of the project and the economic structure of the regional economy. The implications of these employment effects for local population change vary from region to region because of labor availability differences in each area. Local unemployment rates, residence and commuting patterns, labor force skills, and other economic and demographic factors affect the magnitude of regional population impacts. Absolute peak-year population impacts in the OB counties could range from 7,700 to 16,900.

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The effect that these levels of in-migration will have on the local quality of life will depend on the actual magnitude and rapidity of individual community growth and decline, the affected community's resiliency to that change, and the extent to which mitigating measures are actively sought and applied. The more urbanized counties (e.g., Clark County, Nevada) can cope with changes more easily than the rural counties (e.g., Mineral County, Nevada). In some cases, the quality of life may be improved. Even in smaller communities, increased diversification of industry, goods, and services will provide a wider range of employment opportunities, shopping facilities, and cultural activities.

The Nellis AFB/Indian Springs AAF alternative ranks first (results in least impact) for quality of life, followed by the F. E. Warren AFB, Cannon AFB, and Hawthorne AAP alternatives.

Biology

Projected impacts of [] deployment on the biological resources of vegetation, wildlife, aquatic habitats and biota, and threatened and endangered species generally range from low to negligible for all alternatives. However, there are several exceptions to this generalization which are described below.

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Short-term vegetation impacts range from moderate to high for all alternatives. For the Nellis AFB/Indian Springs AAF and Hawthorne AAP alternatives where revegetation is slow and difficult, these impacts are high and moderate, respectively, and will persist longer than for the other alternatives due to the extreme aridity and longer revegetation period required.

Moderate impacts to aquatic biota are associated with the Nellis AFB/Indian Springs AAF alternative if the [] is located at Indian Springs AAF. This is due to the presence of aquatic habitats in the potential region of influence (ROI) of M-X deployment (most notably Ash Meadows), that are sensitive to groundwater withdrawal. Although significant hydrologic impacts are not anticipated, subtle changes in surface water flows as a result of project groundwater withdrawal could have significant impacts on sensitive aquatic biota. There is also the possibility of private land development in Ash Meadows as a result of M-X deployment. These potential impacts can be avoided or decreased through mitigation should this alternative be selected. The potential for impact to federally listed threatened or endangered species is judged to be low or negligible for all alternatives except Nellis/AFB Indian Springs AAF. Here potential impacts are moderate due to the potential of affecting four endangered fish species at Ash Meadows. These potential impacts can be avoided or decreased through mitigation.

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For vegetation, wildlife, and aquatic habitats and biota, the F. E. Warren AFB and Cannon AFB alternatives are tied for first (least impact), and the Hawthorne AAP alternative ranks second. The Nellis AFB/Indian Springs AAF alternative ranks last because it would sustain the highest impacts, due principally to the low resiliency and recovery potential of the vegetation and the moderate potential for impact to sensitive aquatic resources. For federally listed threatened and endangered species, the Cannon AFB alternative ranks first and the Nellis AFB/Indian Springs AAF alternative third; the remaining two alternatives are tied for second.

Air Quality

During the construction phase the primary project emission sources affecting air quality will be construction dust and vehicle emissions. Construction dust may cause local total suspended particulate (TSP) concentrations in excess of National Ambient Air Quality Standards (NAAQS). This will probably not be significant due to the temporary nature of the emissions and their limited local influence. Fuel combustion and vehicle emissions will cause a low impact on air quality if the project is not sited in proximity to a sensitive receptor such as a designated Prevention of Significant Deterioration Class I area or nonattainment area. Wind erosion from disturbed surfaces could cause a significant impact, particularly for the Nellis AFB/Indian Springs AAF alternative, if a revegetation program is not implemented.

The ranking of alternatives is made on the basis of the estimated probability of occurrence of significant impacts due to M-X project activities. The F. E. Warren AFB alternative ranks first with no anticipated significant impacts on any sensitive receptor. No significant impacts are anticipated with the Cannon AFB alternative, but the higher potential for wind erosion ranks this alternative second. The Hawthorne AAP alternative ranks third with a potential for significant effects on the Gabbs Valley TSP nonattainment area. The Nellis AFB/Indian Springs AAF alternative ranks fourth due to the highest probability of significant impacts in the Las Vegas Valley, which is a designated nonattainment area for carbon monoxide, ozone, total suspended particulates, and lead.

Transportation

Transportation resources are the facilities (roads and utilities) that are used to transport people and goods, and the quality of traffic flow. The ranking of alternatives is based upon the anticipated short-term impacts to the existing road system and current traffic since the potential impacts on railroads and airports are not expected to be significant. Long-term impacts near the OBs are expected to be low for all alternatives, and long-term impacts at the DA are expected to be insignificant. The F. E. Warren AFB alternative ranks first because much of the suitable area is accessible via Interstate 25 and impacts at the OB are expected to be low. The Nellis AFB/Indian Springs AAF and Cannon AFB alternatives are tied for second, because access roads to the DA will probably experience congestion during the construction period. The Hawthorne AAP alternative ranks third since the existing road system which provides access to the base and within the communities of Hawthorne and Babbitt would be unable to accommodate M-X-generated traffic during the construction period. As a consequence, severe congestion would result unless major improvements were made to the street system.

Energy and Utilities

Energy and utilities resources include potable water and wastewater, electricity, petroleum supply, telephone communications, solid waste, and natural gas. Impacts were categorized by issue. The issues are service level, aesthetics, interference with existing facilities, nonrenewable energy usage, and compliance with regulations applicable to solid waste, water treatment, and wastewater systems. The project alternatives were ranked on the basis of the issue-by-issue impact magnitudes. For the short-term construction period, Nellis AFB/Indian Springs AAF is ranked first. The other alternatives, in decreasing order, are Cannon AFB and F. E. Warren tied for second, and Hawthorne AAP last. Short-term impacts common to all alternatives are those related to aesthetics and nonrenewable fuel use. The three lower ranked alternatives were further penalized in the short term because of potential overloading of small community wastewater facilities, limited capacity potable water facilities, and/or project interference with existing facilities. Long-term impacts for alternatives are equal, with continuing low-level adverse impacts because of the aesthetic effects of new transmission lines and the usage of nonrenewable energy resources.

Hydrology and Water Quality

Surface water issues include supply availability, downstream flooding and sediment loading, and water quality. Groundwater issues include supply availability, water-level declines, aquifer depletion, natural groundwater discharge and recharge, land subsidence, and water quality. The anticipated magnitude and probable significance of hydrologic and water-quality impacts were evaluated based on project construction activities and projected water requirements, and the hydrologic and water use conditions in each of the alternative areas.

The amount of water required will depend on the total population in-migration and varies depending on the alternative chosen. Total water needed during the six-year construction period, including system use and personal use, could range from about 25,000 acre-ft to about 45,000 acre-ft, depending on the magnitude of induced population growth. Requirements at F. E. Warren AFB and Cannon AFB are projected to be at the upper end of this range, while Nellis AFB/Indian Springs AAF and Hawthorne AAP requirements would be near the lower end of the range.

In all the alternatives, potential hydrologic and water-quality impacts will be greatest during the six-year period of construction when site disturbance and water use will be highest. During the subsequent operational period, hydrologic and water-quality impacts are projected to be low and not significant. Hydrologic factors favorable to siting at the Nellis AFB/Indian Springs AAF alternative are the availability of unused surface water, the current low level of groundwater development in and near most of the suitable areas, the adequacy of present water supplies at Nellis AFB, and the lack of projected hydrologic or water-quality impacts which could be characterized as significant. Potentially moderate biologic impacts at Ash Meadows may be associated with the low-level hydrologic impacts projected in the ROI. Significant hydrologic impacts are possible at the Cannon AFB alternative primarily from development of water supplies to meet construction period requirements. The competition for water in the area, particularly among agricultural users, is intense and the project could increase aquifer depletion and cause local measurable water level declines in the adjacent wells. There is

considerable public concern over the projected limited life of the Ogallala Aquifer in the area. Project water requirements are very small in comparison to present ROI usage for the Cannon AFB alternative.

Assuming limited mitigation measures, the Nellis AFB/Indian Springs AAF alternative ranks first, the F. E. Warren AFB and Hawthorne AAP alternatives tie for second, and the Cannon AFB alternative ranks last. However, the lease or purchase of existing water rights is the most effective mitigation measure available and would substantially reduce the impacts related to new water uses. The lease or purchase of water rights is the most feasible at the F. E. Warren AFB and Cannon AFB alternatives, because of the numerous sources of existing groundwater rights.

Mining and Fossil Fuels

Two types of impacts are likely to affect the mining and fossil fuels industries. Direct impacts could result from siting an alternative on identified energy and/or mineral resources and would be greatest where these resources are in current production. Direct impacts result from removing resources from development and production for the life of the project (long term). Indirect impacts result from competition for available labor, construction materials and equipment, power, water, and community services. Indirect impacts would be more severe on the mining industry than on oil and gas or geothermal extraction, and they would be principally short term (during construction). The Cannon AFB alternative ranks first because there are no mines or producing oil and gas fields in the immediate vicinity of the base and suitable area. The Nellis AFB/Indian Springs AAF alternative ranks second because the mining industry would experience moderate impacts. The F. E. Warren AFB alternative ranks third due to direct impacts on the oil and gas industry. The impacts could be decreased if CSB siting were to avoid producing fields. The Hawthorne AAP alternative is last, due to the importance of the mining industry to the entire region.

Socioeconomics

Socioeconomic resources include changes in employment, population, housing requirements, and local government public finance.

Socioeconomic impacts would be greatest in areas which currently have low population, small labor forces available for project-related employment, and relatively low fiscal capacity to support project-induced growth. Even within a given area, impacts would differ from community to community, depending upon their size and the level of in-migration experienced.

The Nellis AFB/Indian Springs AAF alternative ranks first, having the least potential for socioeconomic impacts. The large metropolitan area of Las Vegas (Clark County) in the vicinity of potential project locations could readily supply project needs and accommodate project-related population in-migration. The F. E. Warren AFB alternative ranks second. Laramie County, which has a moderate-sized economy, would have higher population impacts due to this region's low unemployment level and the consequent need for labor in-migration. The Cannon AFB alternative ranks third in terms of overall impacts on the socioeconomic environment. Locating the system in Curry County, where the local labor supply is small, would cause high county-level impacts. The Hawthorne AAP alternative

ranks fourth because the relative isolation of Mineral County from large population centers and its own small population suggests large population and housing impacts resulting from the project.

Land Use

Land use includes agriculture and recreational uses. It is composed of four attributes: 1) prime farmland, 2) agricultural land use types and production values, 3) wilderness, parks, and outdoor recreation lands, and 4) rural population. Agricultural uses and rural populations could be displaced by the project. In addition, wilderness, parks, and outdoor recreation could be indirectly impacted by population migration into alternative project areas.

The fewest project impacts on prime farmland and agricultural types and values would be expected in the Hawthorne AAP and Nellis AFB/Indian Springs AAF alternatives, where the least arable land exists. Because of the comparatively low level of project-induced population for the Hawthorne AAP alternative, it is ranked first due to the wilderness, parks, and outdoor recreation attributes.

The number of people displaced will depend on exact project location. Based on average density within the alternative suitable areas, it is estimated that 9 people could be displaced at the Hawthorne AAP alternative, 28 people at the Cannon AFB alternative, 31 people at the Nellis AFB/Indian Springs AAF alternative, and 62 people at the F. E. Warren AFB alternative.

Based upon the expected project effects, the Hawthorne AAP alternative is ranked first with the Nellis AFB/Indian Springs AAF alternative being a very close second, followed by the Cannon AFB and F. E. Warren AFB alternatives. These results apply to both long- and short-term effects.

American Indians

The term "American Indians" is used to collectively refer to all the peoples native to the North American continent, except Eskimos and Aleuts. American Indian cultural resources include districts, sites, structures, biota, objects, and other evidence of human use considered to be of cultural value and importance to American Indians for traditional, religious, curatorial, or other reasons. These resources may be prehistoric sites and artifacts, historic American Indian areas of occupation and events and other related features. American Indian socioeconomic resources are elements that ensure the economic well-being of Indian people, particularly water and economic activities.

The F. E. Warren AFB and Cannon AFB alternatives are tied for first since there are no American Indian reservations or colonies in proximity to either ROI.

The Nellis AFB/Indian Springs AAF ranks second. Although two Southern Paiute reserves are located within the ROI, their primary areas of cultural and economic use do not conflict with project-suitable areas. However, stress to community infrastructure as a result of employment-induced in-migration could cause significant impact on economic resources.

Hawthorne AAP alternative ranks third. The proposed project would severely impact cultural and economic resources of the Walker River Indian Reservation. This impact would extend outside the ROI to reservations which have kinship ties to the Walker River Tribe and also currently use areas in and adjacent to the suitable area.

Cultural Resources

Cultural resources are considered to be of scientific, traditional, religious, or other importance to a culture, subculture, or community, and include districts, networks, structures, buildings, sites, objects, and other evidence of human use. These resources may be prehistoric or historic and may be archaeological, architectural, or archival in nature.

Significant direct and indirect impacts are expected on cultural resources. In general, significant direct impacts are less likely where resource density is lower and potential for mitigation exists. Significant indirect impacts are most likely with greater resource density and accessibility to the general public, higher levels of project-induced population growth and development, and lower potential for mitigation of the impacts.

The Nellis AFB/Indian Springs AAF alternative ranks first primarily because of low indirect impacts. The heritage value (the tangible value people place on cultural resources because of personal reasons) of some resources at this alternative may make mitigation more difficult.

The F. E. Warren AFB and Cannon AFB alternatives are tied for second. Although significant impacts are predicted at all alternatives, the levels of impact are higher than at the Nellis AFB/Indian Springs AAF alternative.

The Hawthorne AAP alternative ranks last. Although in most respects this alternative is the same as the Nellis AFB/Indian Springs AAF alternative, the high relative population growth indicates a high level of indirect impact. Also, mitigation of heritage values is more difficult.

SUMMARY OF RESULTS

The level of projected impacts is summarized in Figure 3. To aid the comparative evaluation of alternatives, the figure identifies four levels of impact: negligible impact, low impact, moderate impact, and high impact. This presentation provides a rough visual ranking within each resource category. Level of impacts should be compared within resource categories but not across resource categories. Short-term impacts (construction phase) are more intense than long-term (operations phase) impacts for all resources in all alternatives, except cultural resources for the Hawthorne AAP alternative where indirect impacts are of greatest concern throughout the project life.

No high impacts are anticipated at the F. E. Warren AFB alternative. Moderate impacts are anticipated on several resources.

For the Cannon AFB alternative, impacts on socioeconomics and transportation, are anticipated to be high. The large construction population in-

RESOURCES	QUALITY OF LIFE	BIOLOGY	THREATENED AND ENDANGERED SPECIES	AIR QUALITY	TRANSPORTATION	ENERGY AND UTILITIES	HYDROLOGY AND WATER QUALITY	MINING AND FOSSIL FUELS	SOCIOECONOMICS	LAND USE	AMERICAN INDIANS	CULTURAL RESOURCES

SHORT-TERM IMPACTS

1. F.E. WARREN AFB	•	•	•	•	•	●	●	●	●	●	•	●
2. CANNON AFB	•	•		●	●	●	●	•	●	●	•	●
3. NELLIS AFB/ INDIAN SPRINGS AAF		●	●	●	●	•	●	●		•	●	●
4. HAWTHORNE AAP	●	•		●	●	●	●	●	●	•	●	●

LONG-TERM IMPACTS

1. F.E. WARREN AFB		•		•	•	•	•	•		●	•	●
2. CANNON AFB		•		●	•	•	•	•	•	●	•	●
3. NELLIS AFB/ INDIAN SPRINGS AAF		●	●	●	•	•	•	•		•	●	•
4. HAWTHORNE AAP	●	•		●	•	•	•	•	●	•	●	●

LEVEL OF IMPACTS

	NEGLECTIBLE IMPACT
•	LOW IMPACT
●	MODERATE IMPACT
●	HIGH IMPACT

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Figure 3. Summary of level of short-term and long-term impacts.

migration, relative to the existing population, would impact the local socioeconomic conditions. Construction traffic is expected to congest local roads.

High impacts to air quality and transportation are expected at the Nellis AFB/Indian Springs AAF alternative. The Las Vegas Basin is a nonattainment area for several pollutants and impacts may be locally significant during both the construction and operational phases of the project. Congestion of rural roads around the DA is expected during the construction phase.

High impacts on quality of life, socioeconomics, cultural resources, transportation, mining and fossil fuels, and American Indians are expected at the Hawthorne AAP alternative. The large construction and operational population immigration, relative to the existing population, would impact the quality of life, socioeconomics, and cultural resources. Construction traffic would severely congest Hawthorne area roads. Competition for resources, during both the construction and operational phases, would impact the mining industry. The large population immigration and new employment attractions could disrupt the current American Indian lifestyle.

The level of impacts across all resources at each location is reasonable given the scale and importance of the project. Worst-case assumptions used in the analysis result in some impacts being projected higher than will actually occur. Further, application of mitigations to specific concerns will reduce the level of impact.