MEMORANDUM

THE WHITE HOUSE

WASHINGTON

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Zbig - DOC+ MJ
Lew Allen's letter is excellent
Should be distributed to all members of Congress -- & to key elements of press - others
J

~~CONFIDENTIAL~~

INFORMATION

June 24, 1980

MEMORANDUM FOR: THE PRESIDENT

FROM: DAVID AARON

SUBJECT: Update on MX (U)

At my request, Harold Brown has sent you the attached memo providing 1) an update on the campaign to win improved support for the MX, and 2) a summary of the evolutions in the basing mode design since your decision last September. (U)

Harold's memo seems guardedly optimistic concerning improved public acceptance. It also makes clear that winning acceptance for the MX program is going to require a long and arduous campaign. Two aspects of this campaign that you might also note are:

-- Parallel DOD and White House coordinating groups have been set up to insure that the campaign benefits from all perspectives, and we all articulate the same policy.

-- In view of the great skepticism being expressed about whether we can complete a competent EIS within this year, we are taking special steps to explain to the public how our EIS process is carrying out its work, and we are planning for a blue ribbon review of the EIS to help establish its credibility. (C)

You will note that Harold's memo does not describe any plans he may have for visiting Nevada/Utah himself, although I have suggested to him that he do this. (U)

Finally, let me add a personal note. We have just been through two very close votes on MX at the Platform Committee. We need, within the party, to do some more missionary work on MX. I will be talking to Jack Watson, Anne Wexler and others about this. (C)

~~CONFIDENTIAL~~
~~Review on June 24, 1986~~

JC, NSA, Brz Mat, Subj File, Missiles, 4/9/80 box 43 # 7

[redacted]

~~SECRET~~

THE SECRETARY OF DEFENSE

3722

#78

WASHINGTON, D.C. 20301

JUN 16 1980

MEMORANDUM FOR THE PRESIDENT

SUBJECT: Update on M-X (U)

I have recently informed you of several changes we have made in the detailed engineering design of the M-X basing arrangement, while remaining well within the scope of the basing decision you made last September. Because of the intense political interest in M-X and the importance of this system to our future strategic posture, I believe it would be useful to provide you some additional information, and update you on our current activities. (U)

The design upgrades are explained in the letter I sent to Committee Chairmen in Congress on April 29, 1980 (Enclosure 1). Essentially, we changed the missile transporter from an "integral" design, in which the missile and launch equipment are always mounted on the transporter, to a "non-integral" design, in which the missile, launcher, and ancillary equipment roll out of a van-like transporter into a shelter loading dock. This design change has two big advantages: it is cheaper, and it eliminates the requirement for a separate shield vehicle to cover the transporter. The new design cannot dash automatically from one shelter to another, but can dash into a choice of shelters from an alert posture on the road, if we come to believe at some future time that the Soviets have penetrated our screen of location uncertainty. Additionally, the new design is much more amenable to use of mass simulators, which we believe will probably be necessary. (S)

You will note that my letter to Chairman Stennis announced these changes in a low-key way; I wanted to let him know that we were doing everything possible to save costs and reduce the complexity of the system, without having the changes seem to amount to a new basing mode, which they do not. At this point, members from the affected states recognized that with the new dash method we could do away with the loop road, and use linear roads if we wished. Because the term "racetrack" had acquired pejorative connotations, it was easier for those members to support us if they could take the credit for "killing the racetrack." Hence, the big headline in the Star. (U)

The land saving made possible through going from loop to linear layouts will probably be about 5%. Together with reduced spacing between shelters, the entire system as now planned will extend over about 20% less land and will require about 1000 miles less of road than originally thought. (U)

~~Classified by See Def~~

~~Declassify on: Review On 14 Jun 86~~

~~SECRET~~

Sec Def Cont Nr. X0898

As we anticipated, the political opposition to M-X is quite strong and comes from a variety of quarters:

- Those who don't want any new missile system.

- A small, highly vocal group that may not be totally opposed to new strategic forces, but doesn't like our basing choice for M-X. Some of these advocate a new submarine-based system because they have no concern about SSBN (or SLBM) vulnerability.

- Those who are greatly concerned about environmental impact in the desert states. These people team easily with the first two groups.

- Some strongly pro-defense people, who believe that the Air Force's vertical shelter recommendation was the best plan and the Administration watered it down. (General Lew Allen has been working hard to defuse this opposition. Enclosure 2 is a letter he wrote about three months ago on these issues. The same letter also anticipated the design change to the non-integral transporter.)

- Last, and perhaps most important, the sincerely concerned citizens of Nevada and Utah. These residents have a long tradition of suspicion of federal activities in their areas. Most people in impacted areas are defense-minded and, to some extent, reluctant to fight defense programs. They are, however, very much concerned about the possible impact of M-X on their lives. They are most worried about the influx of people into their isolated communities; the inevitable change in life-style that will result; the possibility of boom-bust problems; and the impact on local mining and agriculture. Understandably, they tend to resolve their dilemma by adopting the arguments of the second and third groups.

I am taking every step possible to alleviate the real adverse effects and to inform the local people honestly of the scope and character of those problems we can't completely eliminate. (The facts are frequently a lot less worrisome than rumors.) (U)

One major activity we are involved in, which you will hear more about in the future, is the "split basing" study to assess the additional costs and problems in locating one half of the

system in Nevada and Utah and the other in New Mexico and Texas. I have already stated in some hearings that the extra cost of split basing may be prohibitive (perhaps $3-4 billion), but the members and Governors from Nevada and Utah insist that a thorough study be made. I recognize that Nevada/Utah elected officials must question this project with sufficient rigor to demonstrate to their constituencies that their interests are being cared for. I have promised an objective and complete analysis. (U)

We have found frequent visits out West by senior civilian officials and Air Force people, who are working there continuously, extremely helpful. A few weeks ago Bill Perry and David Aaron were on a two hour panel debate on M-X that was broadcast nationally on public TV. Since then, Bill has spent additional time in the Southwest, including attending some meetings in very small towns, getting to know the people and hearing their concerns first hand. (U)

I believe that all these activities are paying off. We have developed considerable feel for those actions we might have taken which would be totally unacceptable, and for areas where reasonable accommodations and compromises can be made. We have found, too, that some opposition melts away when our representatives describe to small citizen groups in situ the need for M-X, and the extensive analyses leading us to this particular design. We will continue to seek and accept all such educational opportunities as we forthrightly address citizen concerns. (U)

Naturally, many of those issues and others find able spokespersons in Congress, and we have a full plate of ongoing Congressional actions, but we still may need further White House assistance. (U)

The first of two important events in the coming months is publication in July of the Draft Environmental Impact Statement (EIS) in support of the deployment area selection and land acquisition. Following public hearings during the comment period, the final EIS is to be submitted in November, leading to a December decision and subsequent introduction of necessary land withdrawal legislation to Congress. Our schedule requires legislative action by mid-1981 in order to protect our 1986 IOC date. (U)

The second important event is the System Design Review, beginning next month and continuing through September, that will give us a more detailed look at the consequences and benefits of design decisions we have made since you authorized the start of full scale engineering development last September. (U)

In summary, I am pleased with engineering progress on the M-X program and am more confident than ever that we made the right basic decisions last year. We are still facing some battles to obtain a high degree of public and Congressional support, but we have a very vigorous program and I feel the situation is improving. Your continuing support has been most helpful. (U)

Harold Brown

Enclosures
1. Letter to Senator Stennis -DNR
2. Gen Allen letter to Chairman Price

OFFICE OF THE CHIEF OF STAFF
UNITED STATES AIR FORCE
WASHINGTON, D.C. 20330

27 February 1980

Honorable Melvin Price
Chairman
Committee on Armed Services
House of Representatives
Washington, D.C. 20515

Dear Mr Chairman:

I am writing to provide an update on the information provided to you in my letter of December 28, 1978 regarding the status and plans for the M-X program. It is clear that the M-X missile and its associated basing mode will be issues of concern in the forthcoming review of the FY 1981 budget.

To assist the Committee in considering these matters, I wish to make it clear that the Air Force remains firmly committed to the development and deployment of the M-X missile in a survivable basing mode. We remain convinced of the importance of retaining a viable strategic Triad that includes the unique contributions of the land-based ICBM: quick, flexible response; independence from warning; high alert rate; dependable, proven command, control and communications; and low operating cost. After exhaustive studies of some 35 alternative basing modes, the Air Force (supported by both the Air Force Scientific Advisory Board and the Defense Science Board) concluded that survivability of the land based ICBM force could best be provided by a system--known as multiple protective structures (MPS)--that bases a relatively small number (200) of missiles in a relatively large number (4600) of shelters.

Unlike many of the other alternatives considered, MPS not only provides for survivability of the ICBM force, it does so in a manner that preserves the military characteristics that give ICBMs their value. Further, M-X in MPS, while expensive, is less so than many other alternatives and is consistent in cost with previous strategic programs. In the course of discussions with the governors of the states where M-X is likely to be deployed, we have found that an acceptable MPS basing configuration must include point security to minimize the withdrawal of land from public use and a careful design to reduce adverse environmental impacts. Our M-X/MPS design meets these criteria. Finally, we satisfied ourselves that M-X in MPS was verifiable under existing

Encl 2.

concepts of SALT and, more importantly, was compatible with our long term arms control goals. For these reasons, the Air Force last year recommended M-X in MPS basing to the Administration and to the Congress. We continue to do so; although, as detailed below, the MPS mode now under development includes additional features beyond those we described to you in my letter of December 28, 1978.

Last year, the Air Force recommended to the Administration and to Congress that a 92 inch M-X missile be developed for deployment in the vertical shelter MPS basing mode. We believed this would provide the lowest cost solution for a survivable, effective land based ICBM force. Vertical MPS relies totally on concealment (one missile hidden among 23 shelters) for survivability and it was our judgment that concealment would provide adequate confidence in the system's survivability.

This recommendation was submitted through the Office of the Secretary of Defense and the National Security Council to the President. In the course of high level deliberations, the President decided to proceed with the development of the 92 inch M-X missile deployed in an MPS basing mode. However, questions were raised in regard to our confidence in the system's survivability and to the adequacy of its verifiability features.

The first concern was based on the question of how we could be assured now of having adequate confidence in this single means of survivability for the lifetime of the M-X system which is expected to extend well into the 21st century.

To address this concern and to add to our confidence in the system's survivability, the Air Force worked with the Office of the Secretary of Defense to develop a variation of the MPS system which retains the concealment mode of survivability, but adds a second mode--enhanced mobility including dash. This system, known as horizontal dash MPS, was approved last September by the President for full scale engineering development. It is important to note that, in concept and design, vertical and horizontal MPS systems are largely the same. Their military characteristics and environmental impacts are virtually identical. The important distinctions are that the horizontal mode has the inherent capacity for rapid missile relocation and costs somewhat more.

The purpose of adding mobility to the normal concealment mode is to deny the Soviets the prospect of executing a successful attack even in the unlikely case that they could gather sufficient knowledge of the location of a significant number of the M-X missiles.

The baseline horizontal dash system provides enhanced mobility that is useful in several ways. First, should we suspect that concealment has somehow been compromised, (or, if we simply wish to add to our confidence that the Soviets could not know the missile locations) it would allow us to relocate all missiles in about 12 hours. This compares to about two days with the vertical system. Further, if concealment remained in question for some period, or in times of heightened tension, we could place all or a portion of the missile force in motion within the missile fields, planning to dash to the nearest shelters upon receipt of tactical warning. This can be accomplished in less than missile flight times with the horizontal, but not the vertical system. Finally, the horizontal dash system would also provide the capability for the missiles to dash on receipt of tactical warning from a given shelter to any other shelter on their closed loops within the flight time of a Soviet ICBM attack.

The horizontal MPS system costs about $4 billion more than the basic vertical system. However, if the vertical system is made as mobile as possible (to accomodate the two day reshuffle) by providing the same number of transporter-erector-launchers (TELs) as costed for the horizontal system, the difference drops to about $2 to 3 billion. The Air Force believes the added confidence in survivability provided by the horizontal system is well worth the added cost.

A second question posed during the high level review of the vertical shelters design dealt with the adequacy of the features to permit verification by national technical means. In the proposed vertical shelter configuration, the primary basis for verification was to be provided by controlled assembly and controlled introduction of the missiles into the deployment area. The underlying concept was that the missiles would be verifiable during assembly and introduction and then, in effect, disappear in the deployment area--just as is presently the case for SLBMs. Options for periodic inspections of selected portions of the deployment area using national technical means of verification were also discussed.

The basic design for controlled introduction of missiles into the deployment area was adopted in the horizontal MPS design. However, to broaden the verification opportunities, it was decided to add other features to enhance verifiability, most notably the openable viewing ports on the horizontal shelters. These additional features add about $1 billion to the system cost.

Although ratification of SALT II is now delayed, the Air Force strongly believes that the features to enhance verification should be continued in development. These design features could be excluded from the system without significant cost penalty if a decision to do so were made prior to production which is scheduled to begin in 1983.

In accordance with the President's direction, the 92 inch M-X missile and horizontal MPS basing mode entered full scale engineering development (FSED) late in the past fiscal year. Part of this process involves the definition and refinement of major system components as well as the concept of operations for employment. For example, we are conducting major tradeoff analyses on the configuration of the missile TEL and the protective structure. We are also examining in great depth several movement concepts to determine the most effective way to exploit the mobility features of the horizontal dash basing mode.

Further, in compliance with the intent of Congress as expressed in the "Stevens Amendment", the Air Force is continuing to examine the vertical shelter MPS and refinements of the baseline system.

Our principal activity in regard to vertical MPS has been to seek methods to enhance mobility and thus increase our confidence in the surviviability of the system by decreasing the time required to relocate the missiles from one shelter to another. We have conducted several experiments at the Engineering Test Bed facility in Nevada, but the results are not encouraging. It appears that the time required for a single removal and subsequent insertion maneuver cannot be reduced to less than 1 1/2 to 2 hours--appreciably longer than the 15 to 30 minutes associated with the horizontal MPS. This is the single most unattractive feature of the vertical shelter mode.

The engineering work to date on a refinement of the baseline horizontal system has been promising. This approach envisions a transporter that is separable from the erector-launcher and this permits a considerably smaller shelter. Further, since the transporter would act as the shielding vehicle for missile movement and emplacement, this refinement would permit dash from the connecting roadway to a shelter without unmasking the location of the actual erector-launcher with its enclosed missile. If further work supports the concept, it appears that this design would cost about $2 billion less in acquisition. We are continuing to examine this and other modifications of the details of the horizontal MPS basing mode approved by the President and anticipate further refinement of the system during the normal course of the current full scale engineering development phase.

In light of the deferral of SALT II ratification, we have been compelled to re-examine the adequacy of all of our strategic programs, including M-X, against the possibility of very large Soviet threats. Actually, the M-X/MPS system was designed from the beginning with this possibility in mind and, last year, we briefed your Committee on the ability of M-X in MPS to cope with much larger threats than forecast. But first, it's important to

note that the deferral of SALT II does not necessarily mean that all arms control pursuits would be abandoned or that there would be no restraints on deployment of nuclear warheads. We believe the Soviets made the large investment in their modernized ICBM force with the expectation that they could gain an advantage by threatening our ICBMs. The purpose of M-X is to deny them that advantage.

The fundamental goal of MPS is to deter an attack by confronting the Soviets with a situation in which they would always have to use more of their force (at least 2.3:1) than they could expect to destroy.

Thus a rational enemy, if starting from a position anywhere near parity, would be deterred from attacking because such an attack would cause the relative balance to shift against him. But an unfavorable exchange ratio might be acceptable if the attacker began with an inventory so large he could overwhelm us.

The basic M-X MPS system of 200 missiles in 4600 shelters was designed to provide about 50 percent survivability against the predicted threat and to maintain a substantial number of surviving weapons if confronted with considerably larger threats. Large increases in the threat could be offset by increasing shelters, increasing missiles or both. This could be done without expanding the total area over which the system is deployed. It would cost us less to respond to the increased threats than it would for the Soviets to deploy them.

When considering the possibility of greatly expanded Soviet threats, it is important to note that the counterforce capability of M-X will provide a very substantial disincentive to the Soviets to further expand their ICBM force by deploying new missiles in fixed silos carrying increased numbers of RVs. A U.S. counterforce attack using the M-X on Soviet current generation, silo-based MIRVed ICBMs would confront the Soviets with an adverse exchange ratio on the order of from 6:1 to 10:1. That is, 6 to 10 Soviet RVs could be destroyed for each M-X RV expended. It would appear that a rational Soviet planner would be forced to think very hard before deciding to fractionate his ICBM payloads further (to 20-30 RVs on an SS-18 class missile, for example), and deploy the new missiles in fixed silos since this would simply confront him with an even more adverse exchange ratio. Faced with a U.S. M-X/MPS deployment, the Soviets would be much more likely to undertake measures to improve the survivability of their own ICBMs, through some mobile deployment configuration, for example, rather than taking steps that would only place a larger number of ICBM weapons at risk.

Additionally, it should be noted that if the Soviets actually did deploy such very large numbers of warheads, we would have

considerable concern as to the survivability of the other two legs of the Triad as well. This concern would increase drastically if those other two legs were standing alone without the support of M-X in MPS.

If, nevertheless, the Soviets elected to conclusively reject strategic arms control and deploy greatly expanded ICBM threats--well in excess of ten thousand ICBM warheads--we might be driven to serious considerations of the use of an anti-ballistic missile (ABM) system to defend M-X. Such an ABM system would preferentially defend only the shelters occupied by missiles and hence would counter the increased threat at a fraction of the Soviet's costs. With this inherent resiliency, M-X in MPS offers a means of responding successfully to very large threats and thereby should dissuade the Soviets from making the very substantial expenditures to field such threats.

The threat to Minuteman is serious and real and we have found no easy solutions. We continue to believe most strongly that the strengths of the Triad should not be abandoned in the face of the Soviet threat. Survivability of the ICBM force is our foremost objective and this requirement results in a complex basing arrangement. We have reviewed carefully every component of the system and all aspects of its operations. We have consulted with a host of scientific and technological advisors in government, in industry, and in the academic world and there is agreement that the team of American industry and the United States Air Force can build and operate this system with the same success it has demonstrated with equally complex systems in the past. Most importantly, Gen Ellis, the Commander in Chief of Strategic Air Command which will bear the responsibility for the operation of M-X MPS, has concluded after careful and critical review that the operation of this system is well within the capability of his Command.

In conclusion, I want to restate the conviction of the Air Force--a conviction shared by the Joint Chiefs of Staff, the Secretary of Defense, the National Security Council, the President and the Congress--that a survivable land-based ICBM system is critically needed to maintain essential equivalence and stable deterrence. The Air Force, based on many years of exhaustive study, is convinced that the MPS concept offers the best solution and that the additional confidence offered by the horizontal version of MPS approved by the President is well worth the additional cost. We believe that we can continue to refine this system during development with a view towards lowering cost and increasing effectiveness. We ask for your continued support to move forward with M-X in MPS at the fastest pace possible.

A similar letter has been sent to the Honorable John C. Stennis, Chairman of the Senate Armed Services Committee, the Honorable Warren G. Magnuson, Chairman of the Senate Appropriations Committee, and the Honorable Jamie L. Whitten, Chairman of the House Appropriations Committee.

Sincerely,

LEW ALLEN, JR., General, USAF
Chief of Staff