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Chron File - September 1994 #1 [5]

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DOCUMENT NO. AND TYPE	SUBJECT/TITLE	DATE	RESTRICTION
001. memo	Summary of Conclusions of September 9 DC Meeting on U.S. Proposal. Record ID: 9421064. (3 pages)	09/12/1994	P1/b(1)
002. memo	For Anthony Lake from Steven Andreasen. Subject: NPR Briefing, September 15, 1994. Record ID: 9421079. (4 pages)	09/13/1994	P1/b(1)
003a. memo	For Anthony Lake from Steven Andreasen. Subject: Summit Statement Language on Further Reductions in Nuclear Forces. Record ID: 9421075. (1 page)	09/13/1994	P1/b(1)
003b. memo	For the President from Anthony Lake. Subject: Summit Statement Language on Further Reductions in Nuclear Forces. Record ID: 9421075. (3 pages)	09/13/1994	P1/b(1)

COLLECTION:

Clinton Presidential Records
National Security Council
Defense Policy and Arms Control (Robert Bell)
OA/Box Number: 266

FOLDER TITLE:

Chron File - September 1994 #1 [5]

2016-0152-F

vz4628

RESTRICTION CODES

Presidential Records Act - [44 U.S.C. 2204(a)]

Freedom of Information Act - [5 U.S.C. 552(b)]

P1 National Security Classified Information [(a)(1) of the PRA]
P2 Relating to the appointment to Federal office [(a)(2) of the PRA]
P3 Release would violate a Federal statute [(a)(3) of the PRA]
P4 Release would disclose trade secrets or confidential commercial or financial information [(a)(4) of the PRA]
P5 Release would disclose confidential advice between the President and his advisors, or between such advisors [(a)(5) of the PRA]
P6 Release would constitute a clearly unwarranted invasion of personal privacy [(a)(6) of the PRA]

b(1) National security classified information [(b)(1) of the FOIA]
b(2) Release would disclose internal personnel rules and practices of an agency [(b)(2) of the FOIA]
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b(7) Release would disclose information compiled for law enforcement purposes [(b)(7) of the FOIA]
b(8) Release would disclose information concerning the regulation of financial institutions [(b)(8) of the FOIA]
b(9) Release would disclose geological or geophysical information concerning wells [(b)(9) of the FOIA]

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PRM. Personal record misfile defined in accordance with 44 U.S.C. 2201(3).

RR. Document will be reviewed upon request.

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~~SECRET~~

21064

NATIONAL SECURITY COUNCIL
WASHINGTON, D.C. 20506

September 12, 1994

ACTION

MEMORANDUM FOR SAMUEL BERGER

THROUGH: ROBERT G. BELL *RGB*

FROM: ANNE WITKOWSKY *AW*

SUBJECT: Summary of Conclusions of September 9 DC Meeting
on a U.S. Proposal for an Anti-Personnel Landmine
Control Regime

Attached for your review is the "Summary of Conclusions" from the September 9, 1994 Deputies Committee meeting on the U.S. Proposal for an Anti-Personnel Landmine Control Regime.

RECOMMENDATION

That you review the attached "Summary of Conclusions" at Tab A and authorize Will Itoh to sign the memorandum to his counterparts at Tab I.

Approve _____ Disapprove _____

Attachment

Tab I Itoh Memo to Agency Counterparts

Tab A Summary of Conclusions

DECLASSIFIED
E.O. 13526
White House Guidelines, September 11, 2006
By *VL* NARA, Date *1/2/07*
2016-062-1

~~SECRET~~

Declassify on: OADR

~~SECRET~~

~~SECRET~~

~~SECRET~~

21064

NATIONAL SECURITY COUNCIL
WASHINGTON, D.C. 20508

MEMORANDUM FOR

MR. LEON FUERTH
Assistant to the Vice
President for National
Security Affairs

MR. KENNETH C. BRILL
Executive Secretary
Department of State

COL. ROBERT P. MCALEER
Executive Secretary
Department of Defense

DR. GORDON M. ADAMS
Associate Director for
National Security &
International Affairs
Office of Management and
Budget

AMB. RICK INDERFURTH
Office of the Representative
of the United States to
to the United Nations

MR. DOUGLAS F. GARTHOFF
Executive Secretary
Central Intelligence Agency

COL. T. R. PATRICK
Secretary
Joint Chiefs of Staff

MS. BARBARA STARR
Executive Secretary
Arms Control and Disarmament
Agency

SUBJECT: Summary of Conclusions of DC Meeting on the U.S.
Proposal for an Anti-Personnel Landmine Control
Regime ~~(S)~~

The attached is for Deputies eyes only. The summary of
conclusions attached is for the DC meeting which was held on
September 9, 1994 in the Situation Room from 6:00-6:30 p.m. ~~(S)~~

William H. Itoh
Executive Secretary

Attachment
Summary of Conclusions

DECLASSIFIED
E.O. 13526
White House Guidelines, September 11, 2006
By W NARA, Date 1/3/2003
7016. D/SU-F

~~SECRET~~

Declassify on: OADR

~~SECRET~~

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NATIONAL SECURITY COUNCIL

WASHINGTON, D.C. 20506

September 12, 1994

ACTIONMEMORANDUM FOR ANTHONY LAKE
JOHN GIBBONSTHROUGH: ROBERT G. BELL *RB*
LIONEL S. JOHNS *LJ*FROM: STEVEN R. JONES *SJ*
JEFFERSON S. HOFGARD *JH*

SUBJECT: Excess Strategic Ballistic Missiles

With the advent of START, the United States will have over 400 excess Minuteman II ballistic missiles. Russia and other independent states of the former Soviet Union will have over 500 excess ballistic missiles under the START agreement.

The Department of Defense has proposed a policy (Tab II) that would restrict use of U.S. excess ballistic missiles assets to the government. Assets used for orbital launch would be reviewed and approved by DOD on a case-by-case basis. This policy was forwarded to the NSC and OSTP for review under the direction of NSPD-4.

On December 10, 1993, the NSC and OSTP convened an Interagency Working Group to review this policy proposal. This IWG reported its findings through the OSTP-led Space Transportation Working Group; its members include representatives from DOD, NASA, DoS, DoT, DoC, ACDA, and USTR. The IWG reached a consensus to approve the DOD recommendation, while clarifying the case-by-case criteria for orbital launches. An abbreviated version of this policy was then included and approved as Section VII of the NSTC National Space Transportation Policy, dated August 5, 1994. (Tab III).

The IWG agreed that space research and experimentation and new mission concepts will be encouraged and enabled by the use of inexpensive launch vehicles of the class represented by excess ballistic missiles. However, the Government also has a responsibility to encourage the development of a commercial space launch industry. Any use of Government-owned excess ballistic missiles must be consistent with established civil, commercial, arms control and defense space policy objectives, and with U.S. obligations under existing treaties and international agreements.

The IWG supported the proposed DOD policy on the release and use of excess ballistic missile assets provided opportunities are offered to advance the interests of the U.S. commercial launch industry. To that end, the attached NSC-OSTP policy memorandum

includes clear guidelines for the case-by-case review of proposed government use of an excess ballistic missile for orbital launch.

As a follow-on to the review of the proposed DoD policy on use of DoD-owned excess ballistic missile assets, the IWG is beginning to examine issues associated with foreign excess ballistic missiles and the potential impact use of these assets may have on the U.S. commercial space launch industry.

Concurrences by: *In draft* Rose Gottemoeller, *In draft* Elisa Harris, *In draft* Alan Kreczko
Tom Fuhrman *TF*

RECOMMENDATION

That you sign the joint memo with Jack Gibbons to DoD at Tab I.

Attachments

Tab I Memo to the Secretary of Defense
Tab II Incoming Correspondence
Tab III Excerpt from NSTC National Space
Transportation Strategy

THE WHITE HOUSE
WASHINGTON

MEMORANDUM FOR THE HONORABLE WILLIAM J. PERRY
The Secretary of Defense

SUBJECT: Excess Strategic Ballistic Missiles

The National Space Transportation Policy, PDD/NSTC-4 approved by the President on August 5, 1994, includes a section providing policy guidance on the disposition of U.S. excess strategic ballistic missile assets. The policy, described in more detail below, reflects the consensus of an Interagency Working Group with representatives from DoD, NASA, DOS, DOT, DOC, ACDA, and USTR and reflects the results of a subgroup jointly chaired by NSC and OSTP.

In large measure the PDD/NSTC-4 policy regarding U.S. excess ballistic missile assets is based upon DoD's recommended policy (as set forth in Secretary Aspin's memoranda to the NSC and OSTP dated September 15, 1993), but provides additional clarification for the case-by-case review required prior to release of U.S. excess ballistic missile assets for launching government-sponsored payloads into orbit. In implementing PDD/NSTC-4, agencies should adhere to these guidelines as set forth below.

U.S. excess ballistic missiles that will be eliminated under the START agreements shall either be retained for government use or be destroyed. These assets may be used within the U.S. Government in accordance with established DoD procedures, for any purpose except to launch payloads into orbit. Requests from within the Department of Defense or from other U.S. Government agencies to use these assets for launching payloads into orbit will be considered by the DoD on a case-by-case basis and require approval by the Secretary of Defense.

Mindful of national policy guidance that U.S. Government agencies shall purchase commercially available U.S. space transportation products and services to the fullest extent feasible, use of excess ballistic missile assets may be permitted for launching payloads into orbit when the following conditions are met:

- o The payload supports the sponsoring agency's mission; for example, for Government authorized or sponsored research, technology development and test, experimentation, or education and training.

- o The use of excess ballistic missile assets is consistent with international obligations, including the MTCR guidelines and the START agreements.
- o The sponsoring agency must certify the use of excess ballistic missile assets results in cost savings to the U.S. Government relative to the use of available commercial launch services that would also meet mission requirements, including performance, schedule and risk.

In implementing PDD/NSTC-4 policy guidance, the government shall avoid subsidizing an excess ballistic missile launch industry. To ensure an equitable comparison with the U.S. commercial launch industry, the price for launching a payload using excess ballistic missile assets shall contain all additional costs, both recurring and non-recurring, associated with providing that service. The Department of Defense will work with other U.S. government agencies to establish a baseline cost that can be used for the purposes of such comparison.

The decision to allow use of an asset will be the sole discretion of the Government. DoD shall retain ownership and accountability and maintain control and supervision of all assets and related Government Furnished Equipment. The DoD shall also negotiate and monitor all launch operations.

In summary, the basic tenets of the proposed DoD policy on excess ballistic missiles have been approved with the additional clarifications and guidelines described above. The case-by-case review of potential orbital launches should ensure cost-effective use of government assets without conflicting with the government objective to promote growth and development within the commercial launch industry.

Anthony Lake
Assistant to the President
for National Security Affairs


John Gibbons
Assistant to the President
for Science and Technology

copy to: The Secretary of State
The Secretary of Commerce
The Secretary of Transportation
The United States Trade Representative
The Director, Arms Control and Disarmament Agency
The Administrator, National Aeronautics and Space Administration



THE SECRETARY OF DEFENSE
WASHINGTON, D.C. 20301

15 SEP 1993

MEMORANDUM FOR ASSISTANT TO THE PRESIDENT FOR NATIONAL
SECURITY AFFAIRS

SUBJECT: Excess Strategic Ballistic Missile Assets Report

National Space Policy Directive 4, National Space Launch Strategy, requires the Department of Defense to conduct an assessment of alternative disposition options for excess strategic ballistic missiles, and make recommendations to the National Space Council and the National Security Council.

The Department has completed its assessment and forwards the attached report in response to this direction. Our recommended policy is that these missiles either be retained for government use or be destroyed. They may be used as appropriate without prior approval, for any purpose except to launch payloads into orbit. Requests from within the Department to use these assets for launching payloads into orbit will be considered on a case-by-case basis, where a primary factor in that consideration would be whether the use would meet the DoD needs in a cost-effective manner as compared to a commercial procurement. Requests for such use from other U.S. government agencies will be evaluated in a similar manner. The Under Secretary of Defense (Acquisition), in coordination with the Under Secretary of Defense (Policy), will have the authority to grant all such requests.

Pending the completion of your review, the Department will not take any action that is inconsistent with this recommended policy.

A handwritten signature, likely of the Secretary of Defense, is located in the lower right quadrant of the page. The signature is written in dark ink and appears to be "P. H. Rumsfeld".

Attachment

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Executive Summary

Excess Strategic Ballistic Missile Assets Study

As a result of the Strategic Arms Reduction Treaty (START) and scheduled upgrades of some existing systems, strategic ballistic missiles are being deactivated and removed from their launchers. Within this process, missile disposition and related impacts must be resolved, including effects on commercial enterprises and budgets of several governmental organizations.

This study examines current policy and the legal situation, quantifies future needs for these assets, evaluates various options for either use or disposal, and provides the Department of Defense (DoD) recommendation for the disposition of excess ballistic missiles. This report responds to Congressional and National Space Council direction.

Background

Congressional and commercial space launch industry interest in alternative uses for strategic ballistic missiles that may be excess to operational requirements and available because of START and changing United States policy prompted the Department of Defense to initiate a preliminary study, *Use of Strategic Ballistic Missile Assets for Space Launch*, in the fall of 1990. The Senate Armed Services Committee report on the National Defense Authorization Act for Fiscal Year 1991 and National Space Policy Directive 4 amplified this interest (see box).

Together with report language, there are numerous treaties, directives, regulations, and two public laws (P.L. 98-575 and P.L. 100-657) that deal in part with using strategic ballistic missile assets for purposes they were not originally designed to perform. All appear to be slightly different; however, they are not in conflict and, in some cases, complement one another. These include the Commercial Space

Launch Act, Missile Technology Control Regime (MTCR), START, and National and DoD Space Policy.

Asset Availability

United States strategic ballistic missiles can be assigned to two distinct categories, operational and non-operational. The operational category includes those missiles on alert and any spares (e.g., Trident D-5, Minuteman III, etc.). The non-operational category includes strategic ballistic missiles no longer deployed on alert (e.g., Minuteman I, Polaris A-3, and Titan II). The coming years will see some missile class changes in the operational and non-operational inventories due to treaties, policy shifts, and obsolescence or replacement. For this report, START definitions will determine missile status.

"... Accordingly, the committee urges the Secretary of Defense to refrain from permitting the transfer of ballistic missiles, for the purpose of launching objects into space, that have been determined ... to be excess to Government needs to any agency or private interest as GFE until the National Space Council assesses and notifies Congress of the policy implications and the economic impact on the commercial launch industry of such a release."

SR101-384

"... Prior to any release of such [ballistic] missiles, including components, beyond those already approved for use as space launch vehicles, the Department of Defense will conduct, and the National Space Council and the National Security Council will review, an assessment of alternative disposition options for such missiles."

NSPD-4

Table ES-1 shows the number of strategic ballistic missile assets that could be available over the next 20 years as a result of START and replacement. Potentially, the Trident C-4 could also be added to the non-operational inventory. However, its transition from operational to non-operational

status is uncertain and will not be addressed in this report. This report only discusses MM IIs, C-3s, and Peacekeeper.

Table ES-1

2010 Potential Available Missiles

MM II *	392
Peacekeeper **	82
Total	474

*There will be some additional missile stages available.

**Subject to Washington Summit Agreement and reflects number available after 2003

Potential Uses

The Army, Navy, Air Force, and the Ballistic Missile Defense Organization (BMDO) have indicated uses for the excess strategic ballistic missile assets. The non-operational inventory can satisfy most of these needs. Table ES-2 summarizes those uses for the excess strategic ballistic missiles through 2010.

Disposition Options

An investigation into the options discussed in the preliminary study and technical discussions with cognizant ballistic missile offices resulted in the constraints. These constraints lead to the options for consideration. Table ES-3 summarizes the options. Variations are possible within options A and B, however, these variations do not affect the evaluation of that particular option.

Evaluation Criteria and Analysis

Specific criteria were identified to evaluate each of the options, both quantitative and qualitative. Quantitative criteria can be measured in estimated dollars, whereas qualitative criteria involve some judgmental value. Each case was evaluated using es-

tablished criteria and best available cost estimates.

Quantitative criteria include cost of refurbishment, modification, storage, and destruction. The qualitative criteria include asset and storage availability, technical risk of aging asset, proliferation and technical transfer risk, liability, security, compliance with current policies and regulations, compliance with treaties, effect on private R&D investment, effect on international marketplace, effect on United States booster related enterprises, and effect on payload industry. These factors were analyzed using a numerical grading system based on relative benefit to the U.S. government.

Table ES-2

1992 - 2010 Potential Uses

Whole Missiles (MM)	320
Partial Missiles	899
Sounding Rockets	
Non-Launch Uses	

Table ES-3 also shows the total costs of each option. Option B is \$95.5 million if commercial sources acquire 100 missiles. If commercial sources acquire fewer missiles, the costs will be higher because of additional storage and refurbishment. The qualitative criteria values in Table ES-3 are all weighted equally and Option A is clearly the best choice based upon value.

Constraints

- All C-4s are required for operational needs.
- Compliance with MTCR.
- Compliance with START.
- All uses will conform with national space policy.
- Fair Market Value will be determined by auction.

Since some criteria are definitely more important than others, a weighting factor was established for each qualitative criteria to convey its relative importance in the decision process. The weighting factors range from 1 for storage risk to 10 for asset availability; liability; security issues;

complaint with policy and regulations; and compliance with treaties. While the weights are subjective, the relative weights are meaningful. When the weights were applied, Option A still had the best qualitative value followed by Options D, B, and then C.

The evaluations presented do not address the possible variations in Options A and B. One provides for unrestricted use of the excess ballistic missile assets, to include orbital applications. This variation also designates the Air Force as the DoD agent for managing and disposing of all excess ballistic missile assets, except for the C-3s.

The other variation is the same with the exception that it would not allow orbital use of excess ballistic missile assets. If the Peacekeeper missile becomes excess, it would be treated the same as other excess ballistic missiles except for the five Peacekeeper orbital launches, contracted between DARPA and Orbital Sciences Corporation, which would be grandfathered.

Conclusions

In the final analysis, there are no significant or distinct cost differences between options A and B. Any differences would result only from the release or sale of some small number of missiles to the private sector. Therefore, the wide disparity in the qualitative evaluation became the determin-

ing factor in selecting between the two options. Furthermore, by selecting Option A over B, the Department of Defense would be able to maintain a greater degree of control in the areas of security and treaty compliance, while limiting government liability risks -- all of which are major

Table ES-3

Option Summary

Option	Option Description	Total Costs*	Value
A	DoD retains all assets	\$115.5	59
B	DoD retains a significant number of assets Some assets are released or sold	>\$95.5	46
C	DoD retains no assets	<\$263.2	34
D	DoD destroys all assets	\$263.2	50

concerns with any associated release outside government.

Although Option C and D have merit, they would expose the DoD to much larger costs because of the need to release or destroy a launch capability -- and then be required to procure a new, but equivalent replacement for DoD use. When examining both options as part of the evaluation matrix, Option A is the clear choice.

Option A also benefits the commercial space industry. The government routinely contracts with private industry for development, systems engineering, test, and launch support of small launchers using excess missiles or components. These activities are major cost drivers in any launch program. Using the expertise gained from government programs, private industry can, at marginal cost, develop its own commercial variants.

The difference between variations in options A and B are not as significant as between the options themselves.

* Total Costs include only the direct costs associated with each option. It does not include any costs associated with procuring new motors for applications that excess assets could support.

Recommended Option

Based upon the evaluation, the Department of Defense selects Option A - DoD retains all excess strategic ballistic missile assets (Unrestricted Use). The security considerations, replacement costs, liability questions, compliance with policy, and the uncertainty of the world situation all favor retention of these assets.

The DoD will not release any excess strategic ballistic missile assets. They will be retained for government use or destroyed. These assets may be used as appropriate without prior approval, for any purpose except to launch payloads into

orbit. Requests from within the DoD to use these assets for launching payloads into orbit will be considered on a case-by case basis, where a primary factor in that consideration would be whether the use would meet DoD needs in a cost effective manner compared to commercial procurement. Requests for such use from other U. S. government agencies will be evaluated in a similar manner. The Under Secretary of Defense for Acquisition, in coordination with the Under Secretary of Defense for Policy, has authority to grant all such requests.

Excess Strategic Ballistic Missile Study

I. Introduction

As a result of the Strategic Arms Reduction Treaty (START) and scheduled upgrades of some existing systems, strategic ballistic missiles are being deactivated and removed from their launchers. Within this process, missile disposition and related impacts must be resolved, including effects on commercial enterprises and budgets of several governmental organizations.

This study examines current policy and the legal situation, quantifies future needs for these assets, evaluates various options for either use or disposal, and provides the Department of Defense (DoD) recommendation for the disposition of excess ballistic missiles. This report responds to Congressional and National Space Council direction.

II. Background

Congressional and commercial space launch industry interest in alternative uses for strategic ballistic missiles that may be excess to operational requirements and available because of START and changing United States policy prompted the Department of Defense to initiate a preliminary study, *Use of Strategic Ballistic Missile Assets for Space Launch*, in the fall of 1990. Later, the Senate Armed Services Committee (SASC) report on the National Defense Authorization Act for Fiscal Year 1991 (SR 101-384) stated:

"... Accordingly, the committee urges the Secretary of Defense to refrain from permitting the transfer of ballistic missiles, for the purpose of launching objects into space, that have been determined ... to be excess to Government needs to any agency or private interest as Government Furnished Equipment (GFE) until the National Space Council assesses and notifies Congress of the policy implications and the economic impact on the commercial launch industry of such a release."

National Space Policy Directive 4, titled National Space Launch Strategy, issued on July 10, 1991. The policy directed U.S. Government agencies to report to the National Space Council on activities associated with the policy directive. In particular, NSPD-4 referred to the use of excess ballistic missile assets and requested a report be forwarded to the National Space Council.

This report responds to NSPD-4 and SR 101-384. The Terms of Reference for the formal study, agreed upon in August 1991, defined the extent of and assigned specific responsibility for carrying out the DoD review of "Excess Strategic Ballistic Missile Assets." The tasks for this formal study were:

- Identification of DoD requirements (operational, test, and R&D), as well as identification of probable needs not yet validated.
- Determination of number of assets available by year, storage requirements, and current storage capacity utilizing planned draw down rates.
- Compilation of current START-related restrictions and prior commitments of DoD (e.g., MTCR).
- Technical assessment of the utility of these assets for space launch.
- Determination of "fair-market" prices for each type of ballistic missile.
- Determination of the "cost" associated with use of these assets (refurbishment, storage, modification, etc.).
- Identification of possible options for disposal of "excess" assets.
- Assessment of potential impacts to the industrial base and commercial markets.
- Option analysis.
- Documentation of recommended policy.

III. Policy and Authority

There are numerous treaties, directives, and regulations, and at least two public laws that deal in part with using strategic ballistic missile assets for purposes other than originally designed or intended. All appear to be slightly different; however, they are not in conflict and, in some cases, complement one another.

Commercial Space Launch Act

The Commercial Space Launch Act (P.L. 98-575) and its Amendments of 1988 (P.L. 100-657) indirectly refer to using ballistic missile assets for other purposes. Section 15a of the Commercial Space Launch Act (CSLA) states:

"The Secretary [of Transportation] shall take such actions as may be necessary to facilitate and encourage the acquisition (by lease, sale, transaction in lieu of sale, or otherwise) by the private sector of launch property of the United States which is excess or is otherwise not needed for public use and of launch services..."

The CSLA defines launch property as

"propellants, launch vehicles and components thereof, and other physical items constructed for or used in the launch preparation or launch of a launch vehicle."

The CSLA also defines launch vehicle as

"any vehicle constructed for the purpose of operating in, or placing a payload in, outer space and any suborbital rocket."

Intercontinental Ballistic Missiles (ICBM) and Sea Launch Ballistic Missiles (SLBM) fall into the category of launch vehicles.

Missile Technology Control Regime

The United States adopted the Missile Technology Control Regime (MTCR) in 1987. The basic tenet of the MTCR is to prevent exports from contributing to mis-

sile proliferation. The U.S. and 22 other governments formally subscribe to the MTCR. Additional governments have informally incorporated the MTCR into their export regulations or are preparing to adhere to the MTCR.

The MTCR addresses the spread of unmanned systems capable of delivering payloads up to 500 kg to a range of at least 300 km. This includes ballistic missiles, space launch vehicles, and sounding rockets. The MTCR divides missile related items into two categories.

Category I consists of complete systems, major subsystems, production equipment and facilities, and related technology. Historically, comprehensive reviews of requests for exporting items have generally resulted in a denial of licenses. Exceptions are permitted only when required by international treaty obligations or on rare occasions when extraordinary precautions are taken by the supplier and recipient governments.

Category II consists of a much longer list of hardware, materials, and technology capable of being used in missiles either above or below MTCR threshold. Exports of items on this list are subject to a case-by-case review. Licenses will generally be permitted for acceptable end uses. However, in questionable cases, end users will require government-to-government assurances against diversion.

All exports of excess strategic ballistic missile assets will require a case-by-case review by the established interagency groups.

START

The Strategic Arms Reduction Treaty (START), agreed to (but not yet ratified) in the summer of 1991, has many provisions that affect the use of strategic ballistic missiles. The treaty is over 600 pages and must be consulted for individual situations. The following paragraphs summarize the main provisions that have bearing on alternative uses for these assets.

Only five locations may be declared as *space launch facilities* for launch of START related ballistic missiles modified for space launch. The aggregate number of launchers at these five space launch facilities may be no more than twenty. These locations must be located no less than 100 km from any ICBM base for silo launchers of ICBMs, any ICBM base for rail-mobile launchers of ICBMs, and any deployment areas.

Flight testing of ICBMs or SLBMs equipped with reentry vehicles is prohibited from space launch facilities. Notification of any flight test of an ICBM or SLBM used for delivering objects into the upper atmosphere or space shall be provided in accordance with the Ballistic Missile Launch Notification Agreement of May 31, 1988.

Telemetric information must be available and broadcast during each flight of a START related ballistic missile that uses an accountable first stage. There are some restrictions on encapsulation and encryption of on-board technical measurements. Only telemetry information about the front section of the missile or its elements may be encrypted (on a limited basis) and then only after separation from either the self-contained dispensing mechanism or from the final stage if the final stage is not equipped with a self-contained dispensing mechanism. Encryption of telemetric information is prohibited if it pertains to the functioning of the missile stage or self-contained dispensing mechanism.

The Nineteenth Agreed Statement permits generic mobile space launchers provided they have differences from ICBMs and SLBMs and their associated launchers. The differences must be observable by National Technical Means of verification. Mobile space launchers may not contain ICBMs or SLBMs. Certain other restrictions apply.

National Space Policy

On November 2, 1989, National Space Policy Directive 1 established and documented National Space Policy. This policy states that:

"United States space activities are conducted by three separate and distinct sectors: two strongly interacting governmental sectors (Civil and National Security) and a separate, non-governmental Commercial Sector. Close coordination, cooperation, and technology and information exchange will be maintained among these sectors to avoid unnecessary duplication and promote attainment of United States space goals."

The policy further states:

"Government sectors shall encourage, to the maximum extent feasible, the development and use of United States private sector space capabilities."

National Space Policy Directive 2, titled Commercial Space Launch Policy, says:

"Consistent with guidelines to be developed by the National Space Council, U.S. Government Agencies will actively consider commercial space launch needs and factor them into their decisions on improvements in launch infrastructure and launch vehicles aimed at reducing cost, and increasing responsiveness and reliability of space launch vehicles."

NSPD-3, titled U.S. Commercial Space Policy Guidelines, discusses in more detail the guidelines stated in NSPD-2. The guidelines state:

"U.S. Government agencies shall utilize commercially available space products and services to the fullest extent feasible. ..."

"-- 'Feasible' means that products and services meet mission requirements in a cost-effective manner."

"-- 'Cost-effective' generally means that the commercial product or service costs no more than governmental development or directed procurement..."

"U.S. Government agencies may make available to the private sector those assets which have been determined to be excess to the requirements of the U.S. Government in accordance with U.S. Law and applicable international treaty obligations. Due regard shall be given to the economic impact such transfer may have on the commercial space sector, promoting competition, and the long term public interest."

Finally, NSPD-4, titled National Space Launch Strategy, further details the strategy associated with using excess strategic ballistic missiles.

"Consistent with U. S. national security and national space policy, the U.S. government may seek to recover residual value from ballistic missiles which are, or subsequently become, surplus to the needs of the Department of Defense. Prior to any release of such missiles, including components, beyond those already approved for use as space launch vehicles, the Department of Defense will conduct, and the National Space Council and the National Security Council will review, an assessment of alternative disposition options for such missiles. Disposition options will be evaluated in terms of their consistency with U.S. national security and foreign policy interests, available agency resources, defense industrial base considerations, and with due regard to economic impact on the commercial space sector, promoting competition, and the long-term public interest."

DoD Policy

Current DoD policy is contained in an August 20, 1990 letter from the Deputy Assistant Secretary of Defense, Strategic Defense, Space and Verification Policy to

NASA Associate Administrator for External Affairs. The letter states in part:

"... I wish to inform you of the Defense Department's current policy with regard to the availability of excess ballistic missiles for use as commercial space launch vehicles. As you know, the Department is a strong advocate of promoting the U.S. space launch industry whenever possible. Providing excess military missiles for SLV use would permit the U.S. Government to benefit significantly from the substantial investment that has been made in these systems over the years. At the same time, however, the release of these assets should be undertaken in a manner that advances rather than undercuts private enterprise in the commercial launch vehicle industry."

"Currently, the Department has an applicable directive (DoDD 3230.3) that addresses the availability of excess government equipment and facilities, which ballistic missiles and their tooling would fall under."

DoDD 3230.3, DoD Support for Commercial Space Launch Activities, states DoD policy in this regard.

"... U.S. Commercial ELV operators may be provided use of DoD-owned equipment not needed for public use or on a non-interference basis. ... Government-owned production facilities or equipment will be made available on a similar basis, with terms to be set on a contract-by-contract basis ... If purchase of government-owned equipment is requested by a U. S. Commercial ELV operator, it will be accomplished under ..."

The General Services Administration and the Federal Acquisition Regulations have restrictions on disposal of government equipment. Ballistic missiles are not explicitly defined; however, they could be included within several categories. In general, before "public" sale, the assets must be offered to other government organizations and/or service organizations. There

are provisions that the government may destroy the equipment (assets) for the public good.

IV. Asset Availability

United States strategic ballistic missiles can be assigned to two distinct categories, operational and non-operational. The operational category includes those missiles on alert and any spares (e.g., Trident D-5, Minuteman III, etc.). These operational missiles directly support the United States Strategic Integrated Operations Plan or SIOP. The non-operational category includes strategic ballistic missiles no longer deployed on alert (e.g., Minuteman I, Polaris A-3, and Titan II). The coming years will see some missile class changes in the operational and non-operational inventories due to treaties, policy shifts, and obsolescence or replacement. For this report, START definitions will determine missile status.

Table 1 shows the number of missiles in the non-operational inventory. All of these are needed to meet current government requirements. It is assumed all will be used to meet the current requirements and therefore, will not be available in future years.

Table 2 shows the additional number of strategic ballistic missile assets that could be available over the next 20 years as a result of START and replacement. This report only discusses the MM IIs, C-3s, and Peacekeeper. Peacekeeper availability is contingent upon approval of the Washington Summit Agreement. The A-3s, MM Is, and Titan IIs are all either committed or are needed to meet potential (or expected, developing) government requirements. In particular, the remaining C-3s are either committed to an existing program or being disposed of.

Table 1

1991 Available Non-Operational Missiles

MM I *	14
Titan II	41
Total	59

*There are an additional 27 Stage 3s in the non-operational inventory

If new missiles are added to the operational force, and or older missiles are removed, the number available for other uses will most likely increase. Although 450 Minuteman IIs will be removed from their launchers, only 392 complete boosters, 28 additional stage 2 motors, and 120 additional stage 3 motors will be available for other uses. The remaining Minuteman IIs will be used as spares for the Minuteman III system. (See Appendix A for draw down details.)

Potentially, the Trident C-4 could also be added to the non-operational inventory. However, its transition from operational to non-operational status is uncertain and will not be addressed in this report.

Table 2

2010 Potential Available Missiles

MM II *	392
Peacekeeper **	82
Total	474

*There will be some additional missile stages available.

**Subject to Washington Summit Agreement and reflects number available after 2003

V. Potential Uses

The Army, Navy, Air Force, and Ballistic Missile Organization (BMDO) have indicated uses for the excess strategic ballistic missile assets. The non-operational inventory can satisfy most of these needs. No distinction between potential uses or existing validated requirements is made in this report.

The Navy and BMDO have tentatively identified use for two to four SLBMs per year from 1994 through 2010. BMDO has identified potential uses for 50 Minuteman I or IIs and 200 sounding rockets* between 1992 and 1997. This rate is projected to the year 2010. In addition, the Air Force has identified a potential use for two to three Minuteman and two to three sounding rockets per year.

In addition to the above numbers, the Air Force has identified a 20 year requirement for approximately 200 Minuteman II stage 2s or stage 3s to power rocket sleds and for aging and surveillance testing. The Air Force is reserving 100 Minuteman IIs for future unidentified missions.

The Navy has determined it is best to destroy all C-3 missiles. The Navy does not believe it is cost-effective, safe, or prudent to attempt to transfer technical responsibility or capability for Navy SLBM assets to any other agency. In the current Navy budget, funds have been allocated for the complete destruction and disposal of all C-3 missiles. The 1st stage motor will be destroyed by burning. The 2nd stage motor will be stored until a class 1.1 propellant disposal capability is available. Since the entire C-3 inventory will be destroyed, none are available for potential uses.

Table 3 summarizes the Potential Uses through 2010.

* A sounding rocket is a launch vehicle that places small payloads into space for short periods of time (usually minutes) using a ballistic trajectory. Sounding rockets can use components and stages from ballistic missiles. For example, Aries I sounding rockets are composed of Minuteman I Stage 2 motors and Eris are composed of Minuteman I Stage 2 and 3 motors.

Table 3

1992 - 2010 Potential Uses	
Whole Missiles (MM)	320
Partial Missiles	899
Sounding Rockets	
Non-Launch Uses	

VI. Lessons Learned

It is useful to examine past examples of ballistic missiles that were made available for other uses. In 1972, the Secretary of Defense authorized the Air Force to provide suborbital strategic ballistic missile support to the Army, Navy, and Air Force using retiring Minuteman I and other retiring ballistic missile assets. The Reentry Systems Launch Program (RSLP) was born and now has a 20 year history of successfully using excess missile assets.

When the Minuteman Is were moved into the non-operational inventory in the early 1970s, nearly 400 complete missiles were destroyed. RSLP retained the remaining missiles. A variety of organizations objected to destroying these missiles and wanted to keep them for unforeseen requirements. The retained Minuteman Is were refurbished and used as GFE for a multitude of experiments and test launches. Minuteman Is are available today only because of some canceled research and development programs. Since the early 1970s, requirements were established that could have been met by the Minuteman I missiles had they not been destroyed. Consequently, many projects were foregone due to lack of a low-cost booster.

The RSLP has developed a process of inspection and refurbishment to increase the reliability of the retired strategic ballistic missiles. Refurbishment of the Minuteman missiles has been occurring since the 1970s. Before refurbishment, operational reliability was 81% for Atlas and 60% for Minuteman I. After refurbishment, the

actual reliability rates were 94% and 98% respectively. On the basis of data collected over the years by the Air Force Ballistic Missile Office (BMO), refurbishment cost is well understood. Total cost per missile is less than \$200,000.

Current missile assets should last many years without propellant repouring, if properly stored. If a propellant repour is required, it would cost an additional \$2.0 million per missile (all three stages). This estimate is based on a total repour, using existing cases of all missile stages in both operational and non-operational inventories.

BMO estimates a 40-fold cost increase to procure a new missile of comparable capability to a refurbished missile. At today's prices this equates to \$200,000 versus \$8 million. Since the 1970s, the Government has saved over half a billion dollars by using the refurbished MM I assets instead of newly manufactured missiles. There is potential, pending more comprehensive assessment and review, that the use of the MM II boosters could save the Government almost \$3.0 billion. As a result of its extensive experience with excess MM I missiles, the Air Force will continue as the lead agency for managing excess ballistic missile activities and assessing future alternatives.

VII. Disposition Options

An investigation into the options discussed in the preliminary study and technical discussions with cognizant ballistic missile offices resulted in the constraints presented below. These constraints lead to the options for consideration.

Constraints

- All C-4s are required for operational needs. The uncertainty of their transition to the non-operational inventory makes the C-4 unavailable for this study.
- Compliance with MTCR.

- Compliance with START.
- All uses will conform with National Space Policies.
- Missiles are defined as whole (all original stages as a single missile), or the START accountable stage alone or in combination with other stages.
- Fair Market Value will be determined by auction with qualified bidders. (See Appendix B for a detailed discussion of Fair Market Value.)

Options for Consideration

Four disposition options were developed as reasonable comprehensive alternatives. The following paragraphs describe each option. Table 4 summarizes the options.

A. DoD retains all assets for its own use.

No assets are declared excess or surplus to the potential uses of the Department of Defense. Within this option there are several variations. Although these variations affect the use of the non-operational assets, they do not affect the outcome.

There are two main variations to Option A. One uses any asset for any application (e.g., space launch, sounding rocket, ballistic missile testing, etc.). The other restricts use to non-orbital launch applications.

B. DoD retains a significant number of assets to meet most of its needs. A set number (e.g., 100 MM IIs) is made available to other government agencies, universities, or the commercial sector by declaring them surplus to DoD needs. Fair Market Value of the surplus assets will be determined by auction with a reserve to cover the costs of storage and other expenses associated with selling the assets to the commercial sector.

Similar to Option A, there are disposition variations within this option. One variation removes the MM II Stage 1s from commercial consideration. This eliminates

any possible START concerns in using the commercially "available" assets. All accountable assets will only be handled and used or destroyed by the government. Another variation is for the government to donate a sounding rocket composed of excess assets to a qualifying university for research purposes. The government could provide the asset in an "as is" or refurbished condition. Other donated services, such as launch and range support, could also be considered in this "swords into plowshares" concept.

Another variation restricts DoD use of MM IIs Stage 1s to non-orbital launches. The commercial sector may use the MM IIs for any manner consistent with START (e.g., space launch, sounding rocket, etc.). This

option retains the status quo for government uses. DoD currently only uses the Minuteman for non-orbital launches. Commercial enterprises could develop an orbital or sub-orbital capability for Minuteman if they believe there is a market for those uses.

A third variation restricts all asset use to non-orbital launch applications.

C. DoD retains no assets. All assets are released (declared excess or surplus).

Those assets not "bought" by the commercial sector will be destroyed. Similar to Option B, there could be restrictions on Minuteman Stage 1s. If this variation is selected, the Minuteman Stage 1s would be destroyed while the Stage 2s and 3s are offered for sale.

D. All assets are destroyed. No assets are available for any application except destruction.

Within this option, the DoD destroys all assets by any approved method to include a reclamation process that retains the chemical and metallic components for reuse.

VIII. Suitability for Alternative Missions

Excess ballistic missile assets can be used for many purposes including ICBM/SLBM test launches, sounding rockets, rocket sled power devices, etc. These uses require some refurbishment and minor modifications to the booster system. For space launch applications, the Minuteman missile could be modified to place between 200 lbs and 1,200 lbs in low earth orbit, depending on the desired orbital inclination and launch site. Besides refurbish-

ment of the motors, modifications to the front end are also required (see Table 5). It is estimated that these modifications might cost between \$5 and \$8 million per booster with initial non-recurring development costs about \$10 to \$15 million.*

According to START provisions, new space launch vehicles based upon the Minuteman system cannot be launched from facilities used for flight testing ICBMs or SLBMs equipped with reentry vehicles. Thus modified or new facilities will be needed to house launch control equipment and launch the boosters.

* The Air Force is developing a modular front-end for the Minuteman II to permit a variety of sub-orbital missions. They estimate that only minor enhancements would be required for orbital missions at a development cost of about \$10 million and recurring costs of about \$5 million per mission.

Table 4

Option Summary

Option	Option Description
A	DoD retains all assets
B	DoD retains a significant number of assets Some assets are released or sold
C	DoD retains no assets
D	DoD destroys all assets

Table 5

Minuteman Components Suitable for Space Launch

Component	Modification Required	
	No	Yes
Stage 1	X	
Stage 2	X	
Stage 3	X	
Interstages		X
Avionics/Electronics		X
Software		X
Payload Adapter		X
Control Facility		X
Injection Stage		New
Payload Fairing		New
Launch Pad		New

IX. Evaluation Criteria

In order to assess each of the considered options, evaluation criteria were developed. These criteria address the more pertinent areas of concern. The criteria are divided into two areas: quantitative and qualitative. Quantitative criteria can be measured in estimated dollars or relative value, whereas qualitative criteria involve some judgmental value. Each option is evaluated against established criteria.

The quantitative criteria consist of:

- Refurbishment Costs
- Modification Costs for Space Launch Capability
- Storage Costs (See Appendix C)
- Destruction Costs

The qualitative criteria consist of

- Asset Availability for Alternative Applications
- Storage Availability
- Technical Risk of Aging Asset from a Reliability, Safety, and Storage viewpoint
- Proliferation/Technical Transfer Risk
- DoD Liability
- Security Issues and Costs

- Complaint with Policy and Regulations
- Compliance with Treaties
- Effect on Private R&D Investment
- Effect on International Marketplace
- Effect on United States Booster Related Enterprises (i.e., Propulsion Providers, Hardware Providers, and Launch Services)
- Effect on Payload Industry

X. Option Analysis

This section discusses each criterion as it applies to the various options assuming 392 MM IIs are available. It is presumed that all C-3s will be destroyed as discussed earlier. The Evaluation Matrix at the end of this section summarizes the entire analysis. Information from this analysis and the matrix is used to determine the recommended option.

Quantitative Criteria

Refurbishment Costs

Some refurbishment is necessary before using any excess strategic ballistic missile assets for an alternative mission. This refurbishment ensures that the stage or component meets the original specification. Minuteman assets are stored in their silos until a fault is discovered, the missile is removed for silo maintenance or test launch, or the missile is retired. In the past those retired missiles were placed in storage and refurbished before use by the RSLP. The refurbishment program for Minuteman I assets resulted in a 98% mission success rate. Considering that some of the assets are now over 30 years old, this success rate is quite remarkable. It is anticipated that the same success rate for the Minuteman II assets will be achieved. Only Minuteman refurbishment will be discussed since no Poseidon C-3s are scheduled for refurbishment.

Refurbishment of the Minuteman missiles has been occurring since the 1970s. On the basis of history documented by BMO, refurbishment cost is well understood. Minuteman I and Minuteman II use the same first and third stage. The Minuteman II Stage 2 is slightly larger than the Minuteman I Stage 2. This slight difference should not have a large impact on the refurbishment cost. Since the parts are the same or similar, the refurbishment costs should be similar. It costs about \$50,000 per stage for refurbishment. If transportation is included from the storage location to the refurbishment facility at Hill AFB, Utah, all three stages can be refurbished for less than \$200,000 per missile. Non-recurring costs should be minimal since the facilities exist and perform this operation on a continuing basis. Table 6 summarizes the refurbishment costs and provides a comparison figure for a comparable hypothetical replacement missile.

Minuteman Refurbishment Costs (In Thousands of \$ per Missile)	
Stage 1	~ 50
Stage 2	~ 50
Stage 3	~ 50
Transportation, etc.	~ 50
Total MM	< \$200
 Repour Cost	 ~ \$2,000
 Substitute MM	 ~ \$8,000

The total recurring cost is approximately \$78 million in FY92 dollars, if all Minuteman II assets are refurbished. For comparison purposes, the Air Force estimates it would cost about \$8.0 million per missile to procure a new missile with the same capability as the Minuteman II system. Therefore, the Government could save on the order of \$3 billion (392 missiles valued at \$8 million each) over the next 20 years if all the missile were used to

meet mission needs which require a modified Minuteman.

This \$78 million value is valid for Option A. Option B would only refurbish the remaining DoD assets after transfer of some number to other organizations or commercial companies. If 100 Minuteman II assets are transferred, 292 (plus additional stages) remain for DoD use. In this case, refurbishment of the remaining assets will cost approximately \$58 million. In both of these options the Government will be using the assets for their own requirements.

In Option C and for the assets "sold" in Option B, the Government will not have a need to refurbish the missiles -- it will be the responsibility of the purchaser. The Government may contract for the refurbishment work, but it would be on a direct cost reimbursable basis; therefore, the government incurs no costs. In fact, the Government may realize an income on the assets sold. This income cannot be calculated at this time due to the many unknowns. Therefore, it is assumed that any income will be balanced by administrative and storage costs. In Option D, all missiles will be destroyed so it would not be prudent to refurbish them before destruction.

Modification Costs

One of the variations in Options A, B, and C is to allow any intended use of the excess assets. This includes both non-orbital and orbital applications. The Minuteman booster must be modified to perform the space launch mission. If this variation is allowed in either Option A or B, the costs are in addition to those estimated for refurbishment. By definition, non-recurring modification costs cover development, design, fabrication, initial integration, and test of the new or modified missile components.

Non-recurring costs are estimated to range from \$10 to \$15 million depending on the extent of modification required to support specific space launch capabilities and do not include any initial integration costs.

Each missile launch could involve recurring cost of between \$5 and \$8 million that includes acquiring new or modified components, assembly, and a system integration contract. These cost estimates do not include any payload associated costs.

From a DoD perspective, Options C and D are the same in terms of refurbishment. There is no reason to modify the excess/surplus missiles into space launch vehicles if they will be transferred to someone else or destroyed. Therefore, no cost is associated with either of these options for the modification criteria.

Storage Costs

Regardless of the option selected, the excess missiles will require storage until disposition is decided. The details of storage under normal use conditions are discussed in Appendix C and apply to Options A and B. The Navy does not anticipate any storage problems or additional costs over those of current operations

The Air Force plans to store all excess Minuteman IIs at Navajo Depot at Belmont, Arizona. Table 7 summarizes the Minuteman storage costs. Required non-recurring costs are associated with establishing a transfer facility for the motors, door modifications, environmental conditioners for the magazines, and apron upgrades. The total cost of the transfer facility and one set of equipment is around \$1.7 million. A transfer facility with related equipment is required independent of how many missiles are stored at the depot. Magazine modifications should cost approximately \$1.5 million per 100 Minuteman missiles or around \$5-6 million for all available Minuteman IIs. Additionally, cradles for the missile stages are required at an estimated cost of approximately \$4100 per stage. If initial transportation costs are included in the non-recurring costs, an additional \$3.6 million is anticipated. (Transportation costs average around \$8,000 per missile.)

It is estimated that the recurring costs will be about \$3 million per year. This includes environmental conditioners, security, maintenance, safety inspections, fuel, etc.

If the missiles are designated for destruction immediately, as is the case for Option D or for those missiles not acquired in Option C, storage costs will be significantly higher. All missiles pre-tagged for destruction are classified as hazardous waste by the Environmental Protection Agency. This declaration will impose different storage requirements on the missiles awaiting destruction. It is anticipated that the storage requirements will be significantly higher because of the different storage requirements associated with hazardous waste. An exact figure is not available but approximately double the cost is anticipated. The storage cost for missiles designated and awaiting destruction is estimated to be \$70.0 million for non-recurring and about \$6.0 million per year for recurring.

Table 7

Minuteman II Storage Costs Summary (In Millions of Dollars)	
Non-Recurring	
Transfer Facility, Etc.	1.7
Cradles	5.4
Door/Apron Mods	16.0
Transportation	3.6
Support Equipment	7.8
Total	\$ 34.5
Recurring per Year	
Heat, Security, etc.	3.0
Total	\$ 3.0

Destruction Costs

There are several methods that can be used to destroy missile assets. In the past, open burning was used at a cost of about \$1.00 per pound of propellant. However, open

burning is not an acceptable destruction method by today's environmental standards for a large number of missiles.

If reclamation is used, a study is needed to assess the costs to the Government. A reclamation plant could cost up to \$50.0 million. Estimates of \$5.00 per pound for an environmentally safe burning method once the destruction facility is built are reasonable. This results in a cost of \$350,000 per missile and a total of \$137.2 million for the 392 excess missiles. In addition the cost of missile storage while awaiting destruction and cost for disposal of booster bodies brings the total to \$263.2 million.

Total Costs *

The total costs of Options A and B are essentially equal considering they are estimates. Option B is about 20% less if commercial sources acquire all 100 missiles. If fewer missiles are acquired, the costs will be higher because of additional storage and refurbishment. Options C and D are more than 125% higher than options A and B because of the necessary destruction facility and destruction costs.

Qualitative Criteria

Asset Availability

An overall assumption of this study is that excess strategic ballistic missile assets can be used for alternative applications. History confirms this assumption. Option A preserves alternative application capabilities because all the assets are retained. This is the best situation for the government. Option B is almost as good. There might be fewer assets, but overall this option is still acceptable although its value is less than the best.

* Total Costs include only the direct costs associated with each option. It does not include any costs associated with procuring new motors for applications that excess assets could support.

Options C and D require the government to procure a rocket motor capability if it still desires to perform the missions supported by excess strategic ballistic missile assets. Option D is the worst case. Any continuation of the missions previously supported by excess ballistic missiles will now require a substitute rocket motor. This additional cost may cause some missions to be canceled because of price. As noted earlier, a substitute missile could cost up to 40 times more than a refurbished one. At this time, it is impossible to determine the number of applications that will still require a substitute motor.

Option C is better than the worst case. The new owners of the excess ballistic missile assets could refurbish them and then sell them back to the government to satisfy the requirement for rocket motors. This cost should be less than a substitute rocket motor and more than government refurbished assets, if available.

Storage Availability

The Air Force and Navy have or are planning adequate storage capability for all the missiles being removed from the operational inventory. Options A and B are less than the best solution for storage availability since modifications of facilities are required. If adequate space were available, the Air Force would not have to refurbish the facilities at Navajo Army Depot, thus the less than the best situation rating.

Options C and D are less desirable situations for storage availability, since in these options, the missiles must be treated as hazardous waste. If all the missiles are slated for destruction (Option D), it is the worst case for the Government because there are no storage facilities available for this amount of hazardous waste. Option C is slightly better because there is the possibility that fewer missiles will be in the destruction category, therefore less hazardous waste storage will be required.

Reliability Risk of Aging Asset

The risk of using the 20-plus year old assets in Options A and B is minimal based upon the history of the Minuteman I. The risk is low. It is probably not the best situation for the Government because all risk cannot be eliminated. Option D would eliminate this risk since all the assets are destroyed. Option C should have no risks for the Government because they will be assumed by the acquiring corporation or will be the same as for destruction.

Safety Risk of Aging Asset

History indicates there is minimal safety risk associated with the Minuteman assets. Age does not appear to be a problem as long as appropriate handling procedures are followed. The safety risk is the same for all options. Because of the nature of the material being handled, the risk is rated as less than the best.

Storage Risk of Aging Asset

Minuteman missiles have more than a 30 year history of safe storage. Options A and B will continue the same storage procedures and the risk is rated as the best achievable. Options C and D are new procedures that were not developed for the missiles. The new methods are probably more than adequate, but because of different procedures they are rated less than the best.

Proliferation/Technical Transfer Risk

If the Government controls all assets, as is the case in Option A and D, there is no risk of proliferation or technical transfer to other countries. Option C is the worst case for the Government. All the assets are being offered and if all are acquired by private corporations, the task of keeping tabs on all assets is enormous. This is the worst situation for the Government. Option B is slightly better only because a set number is offered; however, the more acquired, the greater the risk.

DoD Liability

Liability to the U.S. Government is the same as it is today for Options A and D. This is the best situation possible.

Options B and C present quite a different case. Liability can be limited by an "As is, where is" sale. Also the sales contract might include an article where there is "*no warranty, implied or expressed.*" Nevertheless, the Government must make a full disclosure of each missile, allow reasonable on-site inspection before purchase and have a "*hold harmless or indemnification clause*" in the contract.

Liability to third parties cannot be limited due to the absence of a contract. There is always potential tort liability for government negligence. If the Government performs the refurbishment, either before or after the sale, there could be an implied warranty, thus the government could be held liable for damages.

On the basis of the above brief discussion, it appears that Options B and C increase the liability to the Government. These options are probable the worst situations relative to the U. S. Government.

Security Issues

The Minuteman system has some components that are classified by the Minuteman Classification Guide (Section V, Paragraph 1). These components are the Missile Guidance Set (MGS), Nozzle Control Unit (NCU), and cables. All are classified because of their hardening. If all of these components are removed from the missile, the booster is then unclassified. The MGS can be removed and replaced by another guidance set without lowering the value of a missile stage. However, if the NCU and cables are removed, the booster is virtually useless.

Minuteman systems have common stages as shown in Table 8. If Stage 1 or Stage 2 are acquired by a commercial contractor, it could compromise the security of the Minuteman III, which is expected to remain in the operational inventory for many years.

Table 8

**Stage Commonalty
among
Minuteman Systems**

Stage	System		
	MM I	MM II	MM III
Stage 3	X	X	
Stage 2		X	X
Stage 1	X	X	X

Options A and D are not affected by this commonalty of stages. In both of these options, the Government retains all assets; therefore it is the best situation concerning these classified components. Options B and C are the worst situation -- classified components are released outside government channels. Granted, many commercial contractors can handle and control classified material, but it requires additional checks and balances to ensure there is no compromise of the classified information.

Security Costs

Classified components have an inherent cost associated with accounting for these assets. Options A and D costs will be the same as today's costs. There should be no additional costs because the accountability procedures for the classified components will remain the same. Options A and D offer the best situation for the Government. Options B and C will be higher than for the other options. Option C will likely be more than Option B because of the numbers involved. Hence, Option B is less than the best and Option C is better than the worst situation.

Complaint with Policy and Regulations

Policy and regulations direct the government to make available excess launch property, equipment and services, although NSPD-3 requires due regard be given to the economic impact of such action.

The government is also encouraged to use commercially available products and services when feasible and where cost effective. Other considerations include government factoring of commercial space launch needs into decisions on improving launch vehicles and infrastructure, and enabling the transfer of government space technology developments to commercial industry.

Option A primarily meets the need to satisfy mission requirements in the most cost effective way. Option A also recognizes the use of government research and development funding for launch systems that could be adapted to commercial use. The status quo is essentially maintained with Option A, and therefore, the economic impacts to the existing commercial space launch industry would be minimized.

Option B, while similar to Option A, allows the sale of excess government property to the commercial space industry. This option complies with the direction to sell excess assets, but it could have negative effects on current launch vehicle manufacturers, while simultaneously opening opportunities for both launch vehicle and satellite entrepreneurs. It is difficult to quantify the effects since sale price, market demand, and technical capabilities of a commercially developed launch vehicle using excess assets are not available.

Option C meets the direction to provide excess property, as Option B, but in a much larger sense. The factors and consequences discussed above would still apply, with less certainty on overall effects on the commercial space industry. Furthermore, this option would leave the government without assets, resulting in fewer missions and higher costs.

Destroying all assets, Option D, would only economically support the rocket motor manufacturing segment of the commercial space industry. Further, this option is not consistent with any other elements of current policy or directives.

Option B more completely satisfies policy and directives better than any of the other alternatives. Option A is also reasonably consistent and is only slightly less acceptable than Option B.

Compliance with Treaties

Treaties pose a different situation. The optimum posture for the DoD would have all assets destroyed. Proliferation issues and START accountability associated with these specific excess missiles would be eliminated. Option A is the next best solution since the government maintains centralized control and accountability of missile assets. If Minuteman assets are used for space launch application, different START restrictions apply than if the assets are used for non-orbital application. However, it appears those restrictions could be resolved to allow for orbital use of the assets.

Effect on Private R&D Investment

Incentive to invest in booster technology is dependent on the future uses of that technology. If there is an inexpensive source of boosters, there may not be an incentive to invest in a more technologically advanced and higher price booster. If the payload requires a more sophisticated booster, this rationale may not be valid.

Option D is the best situation for the effect on private R&D investment. Option A is the next best because it reflects today's conditions. There is no change in how boosters are used; therefore, incentive is available for a "better mouse trap" at a competitive price. Options B and C place additional boosters on the open market and could cause restrictions on R&D funds or their total elimination. Option C is the worst case since many boosters will be available at a very reasonable price. Option B has fewer boosters available, and its value is better than the worst.

International Marketplace Effects

Each option could have a different effect on the international marketplace for boosters. Options A and D would be the best situa-

tion. In both options, no additional assets are made available -- the U.S. Government retains or destroys all. In this fashion, the U.S. Government would not set a precedent for selling numerous excess assets and thereby radically alter the international marketplace.

Option B makes a limited number of assets available for commercial use. This could stimulate other nations into releasing or selling excess assets for commercial application. Under such a scenario, the U.S. private launch sector could be placed at a serious competitive disadvantage. Option C is worst than Option B because it releases all the assets for commercial use. The overall effect on the international market is difficult to judge, since foreign motivations are open to question and could be independent of any U.S. Government decision.

Propulsion Provider Effects

Propulsion providers could benefit most from Option D, with incentives to develop new boosters and booster technology for this low end of the launch spectrum. However, there is no guarantee. The cost to develop, produce, and market a new booster could make it unaffordable for small launch vehicle type missions. All other options, from A through C, are successively less beneficial to the propulsion providers since the missiles either are retained for government use (the bulk of the market) or are provided to commercial users to service any demand.

Hardware Provider Effects

Potential availability of less expensive boosters may increase the demand for flight opportunities to meet a variety of needs. The hardware provider business base would also have to expand to meet any surge in launch requirements. Option B provides the greatest opportunity for expanding the need for new hardware, since it has the widest market potential and offers the most flexibility for the government and private sectors. Option A follows next, considering that use of the assets should reduce government flight

costs, potentially leading to additional missions and the need for more hardware. Option C would result in higher mission costs for the government, but possibly decrease private sector launch costs. Because the government is the major user, the net effect would be an overall loss in the number of missions, with less need for vehicle hardware. Option D would be the worst case due to higher launch costs, fewer flights, and a reduced need for hardware.

Launch Services Provider Effects

Current commercial launch service providers using more modern technology and boosters could be placed at a competitive disadvantage with the entry of an excess missile-based space launcher. Any cost differences would primarily stem from lower costs, i.e., refurbished excess missiles versus existing modernized boosters. For some existing launch service providers, obtaining excess missiles is the only way to remain competitive, at predominately sounding rocket activity. In the past, when the government has contracted to use existing assets for space activity, the launch service provider gained substantial experience and expertise. In fact, this knowledge base was used to develop commercial derivatives of government initiated programs, at less cost to the service provider. Although both considerations are important, the critical element in this area is minimizing impacts to existing firms with significant investments in newer launch vehicles and technologies. Ultimately, the "sale price" of excess assets would primarily determine the effect on launch service providers -- a determination that has yet to be fully defined.

Under this factor, maintaining the launch environment as it currently exists would cause the least impact. Option A supports the present situation, and is therefore, the best alternative for satisfying this factor. Option B is slightly better than Option C because fewer assets would be released, reducing disruption. Exercising Option D, which eliminates the assets, would raise

costs for both the government and private sector with a potential decrease in launch activity.

Payload Industry Effects

Higher costs for launch services would only serve to suppress research, development, and production of new satellites and space applications. As launch costs are reduced, investment in payloads and satellites becomes more attractive. Again, since the government is a major source for funding payload activities, Option A is the best alternative. Option B is next, with commercial effects tempered by the sale price of excess assets. The same issue surrounds Option C, with no benefit to government space programs. Option D would benefit neither government nor commercial programs.

Evaluation Matrix

To evaluate each criterion, a scale of relative comparability was developed, i.e., each was rated on a scale of 1 to 4, with 4 being the best and 1 the worst situation relative to DoD. A value of 3 equates to less than the best situation and 2 equates to better than the worst situation. The values present in the Evaluation Matrix are described in the preceding paragraphs.

The qualitative criteria values presented are all weighted equally, although some are definitely more important than others. A weighting factor was established for each qualitative criteria to convey its relative importance in the decision process. The weighting factors range from 1 for storage risk to 10 for asset availability; liability; security issues; complaint with policy and regulations; and compliance with treaties. While the weights are subjective, the relative weights are meaningful. When the weights were applied, Option A still had the best qualitative value followed by Options D, B, and then C.

Evaluation Matrix

	Options			
	A Retain All	B Keep Most	C Retain None	D Destroy All
Quantitative Criteria				
Refurbishment - Non-Recurring	0	0	0	0
Refurbishment - Total Recurring	\$78.0 M	\$58.0 M	0	0
Storage - Non-Recurring	\$34.5 M	\$34.5 M	<\$70.0 M	\$70.0 M
Storage - Recurring (per year)	\$3.0 M	\$3.0 M	<\$6.0 M	\$6.0 M
Destruction Facility	0	0	\$50.0 M	\$50.0 M
Destruction	0	0	<\$137.2 M	\$137.2 M
Total Cost *	\$111.5 M	>\$91.5 M	≤\$263.2M	\$263.2 M

Qualitative Criteria				
Asset Availability	4	3	2	1
Storage Availability	3	3	2	1
Reliability Risk of Aging Asset	3	3	4	4
Safety Risk of Aging Asset	3	3	3	3
Storage Risk of Aging Asset	4	4	3	3
Proliferation/Technical Transfer Risk	4	2	1	4
DoD Liability	4	1	1	4
Security Issues	4	1	1	4
Security Cost	4	3	2	4
Compliant with Policy and Regs	3	4	3	2
Compliant with Treaties	3	2	1	4
Effect on Private R&D Investment	3	2	1	4
International Marketplace Effects	4	3	2	4
Propulsion Provider Effects	3	2	1	4
Hardware Provider Effects	3	4	2	1
Launch Service Provider Effects	3	3	3	2
Payload Industry Effects	4	3	2	1
Total Value	59	46	34	50

Individual Value Scale

- 4 = Best Situation (relative to DoD)
 3 = Less than the Best Situation (relative to DoD)
 2 = Better than Worst Situation (relative to DoD)
 1 = Worst situation (relative to DoD)

* Total costs include only the direct costs associated with each option.

Variations

The evaluations presented do not address variations discussed in Options A and B and are independent of the option selected. Once a disposition option is determined, then variations within that option may be selected. Additional considerations, primarily possible commercial launch industry impacts, could affect types of applications that the Department of Defense would pursue. For that reason, there needs to be further consideration as to whether the use of excess ballistic missile assets should be restricted in some manner.

A discussion of the two possible basic variations, with pros and cons is provided.

Variation 1: Unrestricted Use

This variation provides for unrestricted use of the excess MMII ballistic missile assets by any government agency, to include orbital applications. C-3's not specifically identified to support current needs, will be disassembled and disposed of as they come out of the inventory. After April 1994, there will be no assembled C-3 missiles available. Upon ratification of the Washington Summit Agreement, the Peacekeeper will also be available for space use. Former types of missiles (i.e., Titan II) that previously were converted for space launch purposes and are not covered under the START treaty are not affected and can be used for any government purpose. This variation also designates the Air Force as the DoD agent for managing and disposing of all excess ballistic missile assets, except for C-3. If there is desire to use these assets for orbital applications, the following conditions must apply: (1) assets will require little or no modifications for the space launch mission; (2) a determination must be made of policy implications, cost-effectiveness (based on total mission costs), industrial base considerations, economic impact, and environmental risk; and (3) such use will be subject to approval by the Under Secretary of Defense for Acquisition and

Technology, in coordination with the Under Secretary of Defense for Policy. The first and third condition are self-imposed, while the second is dictated by language in the Senate Report 101-384, Defense Authorization Act for Fiscal Year 1991 and National Space Policy Directive 4, National Space Launch Strategy.

Pros

- Complies with National Policy and Commercial Space Launch Act
- Avoids possible START implications
- Provides maximum flexibility for DoD use
- Provides some incentive to develop hardware and services for small satellites
- Identifies single point of contact within Department of Defense
- Most cost-effective option for Department of Defense
- Provides affordable launch for small satellite market, if cost goal achieved.

Cons

- Case-by-case review may be inconsistent with need for policy stability.
- Perception that Department is competing with commercial launch industry.
- Cost-effectiveness of conversion to space launch systems vice commercially available not well documented.
- Effect on current contracts in this performance class uncertain. Could provoke negative industry reaction.

Variation 2: Restricted Use

Same as Variation 1 with the exception that it would not allow orbital use of excess ballistic missile assets. If the Peacekeeper missile becomes excess, it would be treated the same as other excess ballistic missiles except for the five Peacekeeper orbital launches, contracted between

DARPA and Orbital Sciences Corporation, which would be grandfathered.

Pros

- Complies with National Policy and Commercial Space Launch Act
- Provides clear policy on use of missiles for orbital applications
- Has support from commercial launch industry
- Minimizes any effect on current contracts
- Avoids cost-effectiveness test as provided for in national policy
- Supports U.S. position in USTR "Rules of Road" negotiations
- Avoids START implications
- Provides some incentive to industry for R&D

Cons

- Limits Department's flexibility for using these assets
- Does not take advantage of possible cost savings
- Restricts the Department to procuring launch services from Commercial sector for this performance class.

XI. Conclusions

Ultimately, there are no significant or distinct cost differences between options A and B. Any differences would result only from the release or sale of some small number of missiles to the private sector. The result would slightly reduce storage costs, with an indeterminate amount of net revenue for the government, based on the price and total number of missiles sold. Therefore, the wide disparity in the qualitative evaluation became the determining factor in selecting between the two options. Furthermore, by selecting Option A over B, the Department of

Defense would be able to maintain a greater degree of control in the areas of security and treaty compliance, while limiting government liability risks -- all of which are major concerns with any associated release outside government.

Although Option C and D have merit, they would expose the DoD to much larger costs because of the need to release or destroy a launch capability -- and then be required to procure a new, but equivalent replacement. When examining both options as part of the evaluation matrix, it is readily apparent that Option A is the clear choice.

Option A also benefits the commercial space industry. The government routinely contracts with private industry for development, systems engineering, test, and launch support of small launchers using excess missiles or components.

These activities are major cost drivers in any launch program. Using the expertise gained from government programs, private industry can, at marginal cost, develop its own commercial variants.

The variations are not as significant as the differences among the options, although the implications could have significant effects on segments of the launch community.

XII. Recommended Option

Based on the results of this evaluation, the Department of Defense selects the unrestricted variation within Option A. The security considerations, replacement costs, liability questions, compliance with policy, and the uncertainty of the world situation all favor retention of these assets.

The DoD will not release any excess strategic ballistic missile assets. They will be retained for government use or destroyed. These assets may be used as appropriate without prior approval, for any purpose except to launch payloads into orbit. Requests from within the DoD to use these assets for launching payloads into

orbit will be considered on a case-by-case basis, where a primary factor in that consideration would be whether the use would meet DoD needs in a cost effective manner compared to commercial procurement. Requests for such use from

other U. S. government agencies will be evaluated in a similar manner. The USD(A), in coordination with the USD(P), has authority to grant all such requests.

Appendix A

Draw Down Plans

Minuteman II
Poseidon C-3

Appendix A

Draw Down Plans

Minuteman

The Minuteman II and Minuteman III use the same first and second stage. Some of the stages from the Minuteman II draw down will be retained in the operational inventory as spares for the Minuteman III. Currently, there are 450 Minuteman IIs in the operational inventory. All of these will move to the non-operational inventory by 1997. The schedule for the draw down is in Table A-1.

The Minuteman II is composed of three stages. Since some stages will be retained as spares for Minuteman III, the number reduced from the operational inventory and the number available in the non-operational inventory will be different. For example, in FY 92, there were 75 Minuteman IIs removed from the operational inventory (75 Stage 1s, 75 Stage 2s, and 75 Stage 3s), but only 50 Stage 2s were added to the non-operational inventory. The 25 Stage 2 difference is the number being retained as spares for the Minuteman III system. Table A-2 provides the number of available stages that will need to be stored. These assets will be in the non-operational inventory and include any current Minuteman II spare stages.

Table A-1

**Minuteman II
Draw Down**

FY 92	75
FY 93	134
FY 94	143
FY 95	98
Total	450

Table A-2

**Available MM II
Stages**

	Stage		
	1	2	3
FY 92	0	50	120
FY 93	134	134	134
FY 94	143	143	143
FY 95	130	65	106
FY 96	12	0	12

Total Stages 419 392 515

Complete MM IIs 392

Partial MM IIs 123

MMIII spares taken from MMII draw down

* Includes S3s released from MMII spares

Poseidon C-3

All C-3 missiles became part of the non-operational inventory at the end of 1992. The storage requirements are shown in Table A-3 for the two separate storage facilities (See Appendix C). The reduction in the storage requirement is because of the Navy's plans for destruction of the C-3. This is in affect their draw down schedule for destruction.

Table A-3

**C-3
Storage Requirements**

	1	2
FY 92	312	363
FY 93	212	363
FY 94	90	343
FY 95	100	263
FY 96	0	178
FY 97	0	93
FY 98	0	5

Appendix B

Fair Market Value

and

Pricing Analysis

Appendix B

Establishment of Fair Market Value and Sales Techniques for DoD Excess Ballistic Missiles

Fair Market Value is the price determined in a free market exchange between buyers and sellers. This interaction of supply and demand jointly determines the value to society or price. There are several ways to determine the Fair Market Value.

- Original Price and Replacement Value
- Auctions or Negotiated Sales
- Substitution Values

Original Price and Replacement Value notions are immaterial unless they represent an actual seller's willingness to sell, or an actual buyer's willingness to purchase the item. In essence, they become a negotiated sale.

Auctions or Negotiated Sales immediately determine the Fair Market Value of an item. Provisions to prevent collusion on the part of either party is implied in this approach.

Substitution Values are an attempt to determine, before the market opens, the Fair Market Value likely to be determined by the market. As such, Substitution Values are best used to inform the prospective market entrant whether it is likely to be profitable to enter the market.

Substitution Value analyses could estimate the likely effects of DoD's market entrance on quantity exchanged and price. This would enable DoD to assess appropriate courses of action before any sales. However, cost analysts and engineers would revert to original prices or replacement values based on characteristics

of the missiles. This incomplete approach builds a retrospective pricing model that misses the prospective interaction of supply and demand as generated by the characteristics of buyers and sellers; prices of complements, substitutes, and inputs; and the role of technological change.

Cost estimates based on original price, replacement value, and substitution value were prepared by the Air Force Ballistic Missile Office. While none of these estimates accurately reflect the price DoD could expect to receive from the sale of its excess assets, they do provide a reasonable approximation of the value of the assets. The original cost of the MM II asset, adjusted to reflect inflation and based on a build of 100 vehicles, is estimated at \$7.9 million. The replacement cost is the cost of building a new MM II missile. The cost per missile is also based on production of 100 vehicles, and estimated to be \$6.9 million. The substitution cost, or the cost of procuring a substitute ballistic missile for the MM II, is based on the same level of production, and estimated to be \$6.6 million. It should be noted that this estimate is based on the costs derived from the Small ICBM program.

The problem of determining fair market price for excess DoD assets is a lack of a well-defined market. Fair Market price can only be realistically determined in a market setting. Therefore, the only method that could accurately determine the price DoD could receive from a sale of its assets is auction or negotiated sale.

Appendix C

Storage Facilities and Costs

Appendix C

Storage Facilities

Current plans to store excess ballistic missile assets vary by Service. The Air Force intends to store all excess assets at the Navajo Depot Activity at Bellemont, Arizona. This facility is being turned over to the Arizona Army National Guard as part of the base closure and realignment legislation. The Navy plans to store its excess assets at two different missile assembly facilities: the POLARIS Missile Facility Atlantic (POMFLANT), Charleston, South Carolina and the Strategic Weapons Facility Pacific (SWFPAC), Bangor, Washington

Navy

The Navy's storage magazines were constructed specifically for use with the Fleet Ballistic Missile (FBM) system and its support equipment. The locations are used on a daily basis as part of the logistics flow for SLBMs from submarines to shore facilities for disassembly, maintenance, reassembly, and eventually reoutload to submarines. These magazines are also used to store new SLBM rocket motors awaiting final assembly and outload, after receipt from the manufacturer

Due to variations in construction and siting, each magazine can store only certain types and numbers of missiles (i.e., A-3, C-3, C-4, or D-5). These magazines were designed to meet peak Navy storage requirements based on production and logistic considerations. All are fully used in support of the FBM program.

On the basis of the current C-3 draw down schedule, the Navy does not anticipate any storage problems or additional costs over those of the current operation.

Air Force

The Air Force elected to store all excess Minuteman II assets in one location. This decision is the result of a survey and analysis of 20 potential storage facilities. The top four candidates were Navajo Army Depot, Arizona; Umatilla Army Depot, Oregon; Ft. Wingate Depot, New Mexico; and Pueblo Army Depot, Colorado. The selected location was Navajo Army Depot that is being realigned to the Arizona Army National Guard.

Analysis concluded each of the four locations could store the entire Minuteman II inventory. Pueblo Army Depot was the first choice due to its current condition and conveniences (e.g., runway capable of handling aircraft up to a C-5, magazines with 8 foot doors, etc.). However, Pueblo is scheduled for closing in the mid-1990s due to congressional legislation. Ft Wingate and Umatilla were not rated as high as Pueblo, and both were also on the closure legislation. Navajo was selected because it provided the best long-term solution to store all the Minuteman II assets. The facility will be realigned to the Arizona Army National Guard which will be responsible for facility maintenance and security. The four foot doors on the ammunition magazines will have to be replaced with eight foot doors along with some other apron modifications to accommodate the Minuteman II and its handling equipment.

Significant costs are anticipated with providing storage facilities for the Minuteman II missiles in the non-operational inventory.

Storage Costs

Navy

C-3 storage requirements can be met by POMFLANT and SWFPAC. No additional non-recurring costs are anticipated. Recurring costs will be minimal because the facilities have the current mission of storing Sea Launch Ballistic Missiles and are located at the point of outload from the submarine.

Air Force

Minuteman II non-recurring costs for the Navajo Depot Activity are associated with establishing a transfer facility for the motors, door modifications, environmental conditioners for the magazines, and apron upgrades. A rough order of magnitude (ROM) cost for all non-recurring items is \$34.5 million. The total for the transfer facility and one set of equipment is around \$1.7 million. The transfer facility and equipment are required whether one or many hundreds of missiles are stored at the depot. The magazine modifications should cost approximately \$16.0 million for the entire Minuteman II fleet. Additionally, cradles for the missile stages are required with an estimated cost \$5.4 million. If initial transportation costs to Bellemont are included in the non-recurring costs, an additional \$3.6 million is anticipated. Other equipment needed to support the missiles in storage is estimated to cost \$7.8 million.

Recurring costs are dependent on the other missions the Arizona Army National Guard base will have. It is estimated that the recurring costs will be about \$3 million per year. This includes environmental conditioners, security, maintenance, safety inspections, fuel, etc.

Table C-1 summarizes storage costs.

Table C-1

Storage Costs Summary All Minuteman IIs and C-3s (in Millions of Dollars)	
Non-Recurring	
C-3	0
MM II	
Transfer Facility, Etc.	1.7
Cradles	5.4
Door/Apron Mods	16.0
Transportation	3.6
Support Equipment	7.8
Total	\$ 34.5
Recurring per Year	
C-3	0
MM II	
Heat, Security, etc.	3.0
Total	\$ 3.0

**EXCERPT FROM AUG 4, 1985 SPACE
TRANSPORTATION STRATEGY**

- (a) International space launch trade agreements in which the U.S. is a party must allow for effective means of enforcement. The range of options available to the U.S. must be sufficient to deter and, if necessary, respond to non-compliance and provide effective relief to the U.S. commercial space launch industry. Agreements must not constrain the ability of the United States to take any action consistent with U.S. laws and regulations.
- (b) International space launch trade agreements in which the U.S. is a party must be in conformity with U.S. obligations under arms control agreements, U.S. nonproliferation policies, U.S. technology transfer policies, and U.S. policies regarding observance of the Guidelines and Annex of the Missile Technology Control Regime (MTCR).

VI. Use of Foreign Launch Vehicles, Components, and Technologies

- (1) For the foreseeable future, United States Government payloads will be launched on space launch vehicles manufactured in the United States, unless exempted by the President or his designated representative.
 - (a) This policy does not apply to use of foreign launch vehicles on a no-exchange-of-funds basis to support the following: flight of scientific instruments on foreign spacecraft, international scientific programs, or other cooperative government-to-government programs. Such use will be subject to interagency coordination procedures.
- (2) The U.S. Government will seek to take advantage of foreign components or technologies in upgrading U.S. space transportation systems or developing next generation space transportation systems. Such activities will be consistent with U.S. nonproliferation, national security, and foreign policy goals and commitments as well as the commercial sector guidelines contained in this policy. They will also be conducted in a manner consistent with U.S. obligations under the MTCR and with due consideration given to dependence on foreign sources and national security.

VII. Use of U.S. Excess Ballistic Missile Assets

- (1) U.S. excess ballistic missile assets that will be eliminated under the START agreements shall either be retained for government use or be destroyed. These assets may be used within the U.S. Government in accordance with established DoD procedures, for any purpose except to launch payloads into orbit. Requests from within the Department of Defense or from other U.S.

Government agencies to use these assets for launching payloads into orbit will be considered by the DoD on a case-by-case basis and require approval by the Secretary of Defense.

Mindful of the policy's guidance that U.S. Government agencies shall purchase commercially available U.S. space transportation products and services to the fullest extent feasible, use of excess ballistic missile assets may be permitted for launching payloads into orbit when the following conditions are met:

- (a) The payload supports the sponsoring agency's mission.
- (b) The use of excess ballistic missile assets is consistent with international obligations, including the MTCR guidelines and the START agreements.
- (c) The sponsoring agency must certify the use of excess ballistic missile assets results in a cost savings to the U.S. Government relative to the use of available commercial launch services that would also meet mission requirements, including performance, schedule, and risk.

VIII. Implementing Actions

- (1) Within 90 days of approval of this directive, United States Government agencies are directed to prepare the following for submission to the Assistant to the President for Science and Technology and the Assistant to the President for National Security Affairs:
 - (a) The Secretaries of Defense, Commerce, Transportation, and the Administrator of the National Aeronautics and Space Administration, with appropriate input from the Director of Central Intelligence, will provide a report that will include a common set of requirements and a coordinated technology plan that addresses the needs of the national security, civilian, and commercial space launch sectors.
 - (b) The Secretary of Defense, with the support of other agencies as required, will provide an implementation plan that includes schedule and funding for improvement and evolution of the current U.S. ELV fleet.
 - (c) The Administrator of the National Aeronautics and Space Administration, with the support of other agencies as required, will provide an implementation plan that includes schedule and funding for improvements of the Space Shuttle system and technology development.

~~SECRET~~

~~SECRET~~

NATIONAL SECURITY COUNCIL
WASHINGTON, D.C. 20506

September 12, 1994



MEMORANDUM FOR THE HONORABLE HAZEL R. O'LEARY
The Secretary of Energy

SUBJECT: Comments on the Decision Paper for Principals
Regarding Hydronuclear Experiments ~~(S)~~

Thank you for your memorandum of September 7. I advised Tony of your request for a Principals meeting on this issue and incorporated points in the decision paper that tracked those you recommended in your memorandum. ~~(S)~~

Please let me know if I can be of further assistance in reaching an appropriate decision on this important issue. ~~(U)~~

Robert G. Bell

Robert G. Bell
Special Assistant to the President
and Senior Director for Defense
and Arms Control

DECLASSIFIED

E.O. 13526

White House Guidelines, September 11, 2006

By VR NARA, Date 1/3/2017

2016-052-F

~~SECRET~~

Declassify on: OADR

~~SECRET~~

~~SECRET~~

~~SECRET~~
NATIONAL SECURITY COUNCIL
WASHINGTON, D.C. 20506

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By 12 NARA, Date 1/8/2017
2016-0152-F

~~SECRET~~

Declassify on: OADR

~~SECRET~~

WHITE HOUSE STAFFING MEMORANDUM

7353

DATE: 09/13/94

ACTION/CONCURRENCE/COMMENT DUE BY:

9/19

1. LTGEN JAMES E. CHAMBERS, USAF

SUBJECT: MILITARY NOMINATIONS: 2. GEN FREDERICK M. FRANKS, JR., USA

	ACTION	FYI		ACTION	FYI
VICE PRESIDENT	☐	☐	McGINTY	☐	☐
PANETTA	☐	☐	MYERS	☐	☐
McLARTY	☐	☐	QUINN	☐	☐
LADER	☐	☐	RASCO	☐	☐
ICKES	☐	☐	RUBIN	☐	☐
RIVLIN	☐	☐	SEGAL	☐	☐
BAGGETT	☐	☐	SEIDMAN	☐	☐
CUTLER	☐	☐	STEPHANOPOULOS	☐	☐
EMANUEL	☐	☐	TYSON	☐	☐
GEARAN	☐	☐	VARNEY	☐	☐
GERGEN	☐	☐	WILLIAMS	☐	☐
GIBBONS	☐	☐	BELL	☐	☐
GRIFFIN	☐	☐	CLERK	☐	☒
HALE	☐	☐		☐	☐
HERMAN	☐	☐		☐	☐
LAKE	☐	☐		☐	☐
LINDSEY	☐	☐		☐	☐

REMARKS:

Do you have any objections?

RESPONSE:

The National Security Council staff concurs in the attached military nominations.

Anthony Lake

JOHN D. PODESTA
 Assistant to the President
 and Staff Secretary
 Ext. 2702

NATIONAL SECURITY COUNCIL EXECUTIVE SECRETARIAT STAFFING DOCUMENT

TIME STAMP

SYSTEM LOG NUMBER:

7353

ACTION OFFICER: [REDACTED]

DUE: _____

- ☐ Prepare Memo For Lake/Berger
- ☒ Prepare Memo For Podesta
- ☐ Prepare Memo _____

- ☐ Appropriate Action
- ☐ Prepare Memo For Itoh
- to _____

CONCURRENCES/COMMENTS*

PHONE* to action officer at ext. _____

Concur	FYI	Concur	FYI	Concur	FYI
☐	☐ Andreasen	☐	☐ Gottemoeller	☐	☐ Ross
☐	☐ Andricos	☐	☐ Hahn	☐	☐ Rossin
☐	☐ Aoki	☐	☐ Halperin	☐	☐ Roth
☐	☐ Atkins	☐	☐ Harris	☐	☐ Satterfield
☐	☐ Beers	☐	☐ Indyk	☐	☐ Schifter
☐	☒ Bell	☐	☐ Jenson-Moran	☐	☐ Schwartz
☐	☐ Beyrle	☐	☐ Jones	☐	☐ Seaton
☐	☐ Blakeman	☐	☐ Kerrick	☐	☐ Simon
☐	☐ Bradley	☐	☐ Kreczko	☐	☐ Sonenshins
☐	☐ Breeland	☐	☐ Kristoff	☐	☐ Spalter
☐	☐ Burns	☐	☐ Kyle	☐	☐ Steinberg
☐	☐ Clarke	☐	☐ Laipson	☐	☐ Stephens
☐	☐ Claussen	☐	☐ Leary	☐	☐ Suettinger
☐	☐ Danvers	☐	☐ LeBourgeois	☐	☐ Tenet
☐	☐ Darragh	☐	☐ Mislock	☐	☐ Van Tassel
☐	☐ DeShazer	☐	☐ Mitchell	☐	☐ Vershow
☐	☐ Fauver	☐	☐ Murase	☐	☐ Wales
☐	☐ Feinberg	☐	☐ Poneman	☐	☐ Walsh
☐	☐ Forsythe	☐	☐ Punke	☐	☐ Whyman
☐	☐ Fried	☐	☒ Reed	☐	☐ Witkowsky
☐	☐ Froman	☐	☐ Rice	☐	☐
☐	☐ Genton	☐	☐ Rocha	☐	☐

INFORMATION

☒ Itoh

☒ Sens

☐ Soderberg

☒ Exec Sec Desk

☒ Lake

☒ Berger

☒ Wolin

☒ Records Mgmt.

COMMENTS

Logged By _____

Return to Records Mgmt.
379 OEOB

THE WHITE HOUSE

WASHINGTON

September 12, 1994

94 SEP 13 A9:59

MEMORANDUM FOR THE PRESIDENT

THROUGH: THE EXECUTIVE CLERK *PKL*
FROM: ALPHONSO MALDON, JR. *Amg*
DEPUTY ASSISTANT TO THE PRESIDENT AND
DIRECTOR, WHITE HOUSE MILITARY OFFICE
SUBJECT: General Officer Nomination

Forwarded for your approval and signature is the nomination of Lieutenant General James E. Chambers, United States Air Force, for appointment to the grade of lieutenant general on the retired list.

The Deputy Secretary of Defense additionally recommends that you defer the mandatory retirement of General Chambers from December 1, 1994 to January 1, 1995, under the provisions of title 10, United States Code, section 637(b)(2). Your signature on the attached memorandum will constitute your deferral of General Chambers' retirement.

This recommendation has been staffed by the Secretary of the Air Force and approved by the Deputy Secretary of Defense.

Recommendation

That you approve and sign the attached.

Attachment



DEPUTY SECRETARY OF DEFENSE

1010 DEFENSE PENTAGON
WASHINGTON, DC 20301-1010



6 SEP 1994

MEMORANDUM FOR THE PRESIDENT

SUBJECT: General Officer Nomination

On behalf of the Secretary of Defense, I recommend you nominate Lieutenant General James E. Chambers, United States Air Force, for appointment to the grade of lieutenant general on the retired list. General Chambers, age 57, currently serves as Director, Contingency Operations, Headquarters United States Air Forces in Europe.

I also recommend you defer the mandatory retirement of General Chambers from December 1, 1994 to January 1, 1995, under the provisions of Title 10, United States Code, Section 637(b)(2). This action will not cause the Air Force to exceed the number of officers authorized to be serving in the grade of lieutenant general. Your signature on this memorandum will constitute your approval.

Attachment

APPROVED: _____
President of the United States

DATE: _____

THE WHITE HOUSE

WASHINGTON

September 12, 1994

94 SEP 13 A 9: 59

MEMORANDUM FOR THE PRESIDENT

THROUGH: THE EXECUTIVE CLERK *TKR*
FROM: ALPHONSO MALDON, JR. *Amg*
DEPUTY ASSISTANT TO THE PRESIDENT AND
DIRECTOR, WHITE HOUSE MILITARY OFFICE
SUBJECT: General Officer Action

Attached is a recommendation from the Deputy Secretary of Defense requesting that you defer the mandatory retirement of General Frederick M. Franks, Jr., United States Army, from October 1, 1994 to December 1, 1994, under the provisions of title 10, United States Code, section 637(b). On July 20, 1994, you forwarded a nomination to retire General Franks to the Senate. This deferral will allow General Franks to retain his four-star grade while the Senate considers his retirement nomination.

Your signature on the attached memorandum will constitute your deferral of General Franks' retirement.

Recommendation

That you approve and sign the attached memorandum.

Attachment



DEPUTY SECRETARY OF DEFENSE

1010 DEFENSE PENTAGON
WASHINGTON, DC 20301-1010



6 SEP 1994

MEMORANDUM FOR THE PRESIDENT

SUBJECT: General Officer Nomination

On behalf of the Secretary of Defense, I recommend you defer the mandatory retirement of General Frederick M. Franks, Jr., United States Army, from October 1, 1994 to December 1, 1994, under the provision of Title 10, United States Code, Section 637(b). General Franks, age 57, is serving as Commanding General, United States Army Training and Doctrine Command. His nomination for retirement is pending Senate confirmation. This deferral will allow General Franks to retain his four-star grade while the Senate considers his retirement nomination.

This action will not cause the Army to exceed the number of officer authorized to be serving in the grade of general. Your signature on this memorandum will constitute your approval.

APPROVED: _____

President of the United States

DATE: _____

Withdrawal/Redaction Marker

Clinton Library

DOCUMENT NO. AND TYPE	SUBJECT/TITLE	DATE	RESTRICTION
002. memo	For Anthony Lake from Steven Andreasen. Subject: NPR Briefing, September 15, 1994. Record ID: 9421079. (4 pages)	09/13/1994	P1/b(1)

COLLECTION:

Clinton Presidential Records
National Security Council
Defense Policy and Arms Control (Robert Bell)
OA/Box Number: 266

FOLDER TITLE:

Chron File - September 1994 #1 [5]

2016-0152-F
vz4628

RESTRICTION CODES

Presidential Records Act - [44 U.S.C. 2204(a)]

- P1 National Security Classified Information [(a)(1) of the PRA]
- P2 Relating to the appointment to Federal office [(a)(2) of the PRA]
- P3 Release would violate a Federal statute [(a)(3) of the PRA]
- P4 Release would disclose trade secrets or confidential commercial or financial information [(a)(4) of the PRA]
- P5 Release would disclose confidential advice between the President and his advisors, or between such advisors [(a)(5) of the PRA]
- P6 Release would constitute a clearly unwarranted invasion of personal privacy [(a)(6) of the PRA]

C. Closed in accordance with restrictions contained in donor's deed of gift.

PRM. Personal record misfile defined in accordance with 44 U.S.C. 2201(3).

RR. Document will be reviewed upon request.

Freedom of Information Act - [5 U.S.C. 552(b)]

- b(1) National security classified information [(b)(1) of the FOIA]
- b(2) Release would disclose internal personnel rules and practices of an agency [(b)(2) of the FOIA]
- b(3) Release would violate a Federal statute [(b)(3) of the FOIA]
- b(4) Release would disclose trade secrets or confidential or financial information [(b)(4) of the FOIA]
- b(6) Release would constitute a clearly unwarranted invasion of personal privacy [(b)(6) of the FOIA]
- b(7) Release would disclose information compiled for law enforcement purposes [(b)(7) of the FOIA]
- b(8) Release would disclose information concerning the regulation of financial institutions [(b)(8) of the FOIA]
- b(9) Release would disclose geological or geophysical information concerning wells [(b)(9) of the FOIA]

Withdrawal/Redaction Marker

Clinton Library

DOCUMENT NO. AND TYPE	SUBJECT/TITLE	DATE	RESTRICTION
003a. memo	For Anthony Lake from Steven Andreasen. Subject: Summit Statement Language on Further Reductions in Nuclear Forces. Record ID: 9421075. (1 page)	09/13/1994	P1/b(1)

COLLECTION:

Clinton Presidential Records
National Security Council
Defense Policy and Arms Control (Robert Bell)
OA/Box Number: 266

FOLDER TITLE:

Chron File - September 1994 #1 [5]

2016-0152-F

vz4628

RESTRICTION CODES

Presidential Records Act - [44 U.S.C. 2204(a)]

- P1 National Security Classified Information [(a)(1) of the PRA]
- P2 Relating to the appointment to Federal office [(a)(2) of the PRA]
- P3 Release would violate a Federal statute [(a)(3) of the PRA]
- P4 Release would disclose trade secrets or confidential commercial or financial information [(a)(4) of the PRA]
- P5 Release would disclose confidential advice between the President and his advisors, or between such advisors [(a)(5) of the PRA]
- P6 Release would constitute a clearly unwarranted invasion of personal privacy [(a)(6) of the PRA]

C. Closed in accordance with restrictions contained in donor's deed of gift.

PRM. Personal record misfile defined in accordance with 44 U.S.C. 2201(3).

RR. Document will be reviewed upon request.

Freedom of Information Act - [5 U.S.C. 552(b)]

- b(1) National security classified information [(b)(1) of the FOIA]
- b(2) Release would disclose internal personnel rules and practices of an agency [(b)(2) of the FOIA]
- b(3) Release would violate a Federal statute [(b)(3) of the FOIA]
- b(4) Release would disclose trade secrets or confidential or financial information [(b)(4) of the FOIA]
- b(6) Release would constitute a clearly unwarranted invasion of personal privacy [(b)(6) of the FOIA]
- b(7) Release would disclose information compiled for law enforcement purposes [(b)(7) of the FOIA]
- b(8) Release would disclose information concerning the regulation of financial institutions [(b)(8) of the FOIA]
- b(9) Release would disclose geological or geophysical information concerning wells [(b)(9) of the FOIA]

Withdrawal/Redaction Marker

Clinton Library

DOCUMENT NO. AND TYPE	SUBJECT/TITLE	DATE	RESTRICTION
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003b. memo	For the President from Anthony Lake. Subject: Summit Statement Language on Further Reductions in Nuclear Forces. Record ID: 9421075. (3 pages)	09/13/1994	P1/b(1)
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COLLECTION:

Clinton Presidential Records
National Security Council
Defense Policy and Arms Control (Robert Bell)
OA/Box Number: 266

FOLDER TITLE:

Chron File - September 1994 #1 [5]

2016-0152-F

vz4628

RESTRICTION CODES

Presidential Records Act - [44 U.S.C. 2204(a)]

Freedom of Information Act - [5 U.S.C. 552(b)]

P1 National Security Classified Information [(a)(1) of the PRA]
P2 Relating to the appointment to Federal office [(a)(2) of the PRA]
P3 Release would violate a Federal statute [(a)(3) of the PRA]
P4 Release would disclose trade secrets or confidential commercial or
financial information [(a)(4) of the PRA]
P5 Release would disclose confidential advice between the President
and his advisors, or between such advisors [(a)(5) of the PRA]
P6 Release would constitute a clearly unwarranted invasion of
personal privacy [(a)(6) of the PRA]

C. Closed in accordance with restrictions contained in donor's deed
of gift.

PRM. Personal record misfile defined in accordance with 44 U.S.C.
2201(3).

RR. Document will be reviewed upon request.

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personal privacy [(b)(6) of the FOIA]
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purposes [(b)(7) of the FOIA]
b(8) Release would disclose information concerning the regulation of
financial institutions [(b)(8) of the FOIA]
b(9) Release would disclose geological or geophysical information
concerning wells [(b)(9) of the FOIA]

NATIONAL SECURITY COUNCIL
WASHINGTON, D.C. 20506

7745

September 14, 1994

ACTION

MEMORANDUM FOR WILLIAM H. ITOH

THROUGH: ROBERT BELL *RGB*

FROM: KEITH HAHN *KH*

SUBJECT: Revised Defense Proposed Report RE: HR 4531,
Civilian Criminal Offenses Act

Tab II provides a revised proposed report from Defense on the Civilian Criminal Offenses Act (which was reviewed earlier last week). The changes proposed by Defense focus mainly on expanding jurisdiction in criminal offenses to those who travel with U.S. military forces abroad and to personnel who formerly served with U.S. forces abroad. Defense believes these changes are needed to cover the increasing number of U.S. citizens who provide support services to military forces overseas as a result in the decreasing use of military forces for these tasks.

Concurrences by: Bill Danvers *MD* and Alan Kreczko *AK*

RECOMMENDATION

That you sign the memorandum at Tab I concurring in the proposed Defense report.

Attachments

Tab I Memorandum for Signature
Tab II Incoming Correspondence

NATIONAL SECURITY COUNCIL

WASHINGTON, D.C. 20506

MEMORANDUM FOR RONALD K. PETERSON

FROM: WILLIAM H. ITOH

SUBJECT: Revised Defense Proposed Report RE: HR 4531,
Civilian Criminal Offenses Act

The National Security Council staff concurs in the revised proposed Defense report.

EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF MANAGEMENT AND BUDGET
Washington, D.C. 20503

September 23, 1994

LEGISLATIVE REFERRAL MEMORANDUM

LRM #I-3884

TO: Legislative Liaison Officer -

JUSTICE - Sheila F. Anthony - (202)514-2141 - 217
NSC - William H. Itoh - (202)395-3723 - 249
STATE - Julia C. Norton - (202)647-4463 - 225
TRANSPORTATION - Tom Herlihy - (202)366-4687 - 226
TREASURY - Richard S. Carro - (202)622-1146 -

FROM: RONALD K. PETERSON (for) *Ronald K. Peterson*
Assistant Director for Legislative Reference

OMB CONTACT: MIKE GOAD (395-7301)
Secretary's line (for simple responses): 395-6194

SUBJECT: REVISED Defense Proposed Report
RE: HIR 4531, Civilian Criminal Offenses Act

DEADLINE: 2:00 P.M., MONDAY, September 26, 1994

THIS TRANSMISSION CONTAINS 7 PAGE(S) (total).

COMMENTS: The Department of Defense has revised the proposed substitute amendment that was attached to its report (circulated under cover of LRM #I-3870). Please respond by the deadline; if you do not, we will assume that your agency has no comment.

OMB requests the views of your agency on the above subject before advising on its relationship to the program of the President, in accordance with OMB Circular A-19.

Please advise us if this item will affect direct spending or receipts for purposes of the the "Pay-As-You-Go" provisions of Title XIII of the Omnibus Budget Reconciliation Act of 1990.

CC:

J. Fish
B. Kyser
B. Sasser
A. Rhinesmith
M. Schwartz
J. Cerda, DPC
C. Cerda, WHC
R. Jones

7745
URGENT

1 SEC. . CRIMINAL OFFENSES COMMITTED OUTSIDE THE UNITED STATES.

2 (a) IN GENERAL.-Part II of title 18, United States Code, is
3 amended by inserting after chapter 211 the following:

4 "CHAPTER 212-CRIMINAL OFFENSES COMMITTED
5 OUTSIDE THE UNITED STATES

6 "Sec.
7 "3261. Criminal offenses committed by any person serving with, employed by, or
8 accompanying the armed forces outside of the United States.
9 "3262. Delivery to authorities of foreign countries.
10 "3263. Regulations
11 "3264. Definitions for chapter.

12
13
14 "§3261. Criminal offenses committed by any person
15 serving with, employed by, or accompanying the
16 armed forces outside of the United States

✓ 17 "(a) Whoever, being a national of the United States serving
18 with or formerly serving with, employed by, a member of, or
19 accompanying the armed forces outside the United States, engages
20 in conduct which would constitute a criminal offense if the
21 conduct were engaged in within the special maritime and
22 territorial jurisdiction of the United States, or whoever, being
23 a nonnational of the United States employed by or accompanying
24 the armed forces outside the United States, shall be guilty of a
25 like offense and subject to the same penalty provided for such
26 like offense."

27 "(b) Nothing contained in this chapter deprives courts-
28 martial, military commissions, provost courts, or other military
29 tribunals of concurrent jurisdiction with respect to offenders or
30 offenses that by statute or by the law of war may be tried by

1 courts-martial, military commissions, provost courts, or other
2 military tribunals.

3 "(c) (1) Except in the case of--

4 "(A) a prosecution approved as provided in paragraph
5 (2) of this subsection; or

6 "(B) a prosecution before a court-martial, military
7 commission, provost court, or other military tribunal,
8 prosecution of a person may not be commenced under this section
9 for an offense described in subsection (a) of this section if a
10 foreign government, in accordance with jurisdiction recognized by
11 the United States, has prosecuted or is prosecuting such person
12 for the conduct constituting such offense.

13 "(2) The Attorney General of the United States, or the
14 Deputy Attorney General of the United States, may approve a
15 prosecution which, except for this paragraph, is prohibited under
16 paragraph (1) of this subsection. An approval of prosecution
17 under this paragraph may not be delegated below the level of
18 Deputy Attorney General.

19 "(d) (1) The Secretary of Defense may designate and authorize
20 any person serving in a law enforcement position in the
21 Department of Defense to arrest outside the United States any
22 person described in subsection (a) of this section who is
23 reasonably believed to have engaged in conduct which constitutes
24 a criminal offense under such section.

25 "(2) A person arrested under paragraph (1) of this section
26 shall be released to the custody of civilian law enforcement
27 authorities of the United States for removal to the United States