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(S) NATIONAL RECONNAISSANCE OFFICE
WASHINGTON, D.C.

OFFICE OF THE DIRECTOR

10 July 1986

MEMORANDUM FOR THE DEPUTY SECRETARY OF DEFENSE

SUBJECT: Delayed Shuttle Capability at Vandenberg AFB

During your breakfast meeting with Mr. Gates (DDCI) on Friday, 11 Jul 1986, allocation of the cost savings that result from the delay of Shuttle capability at Vandenberg AFB is a potential subject. A background paper which was prepared for SECDEF use in discussing Vandenberg with the President is attached for your information.

Although the primary user of the Shuttle at Vandenberg was the NRO, the O&M was funded by the Air Force. However, the significant cost increases that result from the decision to delay the Shuttle at Vandenberg will principally be borne within the NRP. Thus, the DDCI may request some consideration such as transferring the savings from the Air Force to the NFIP. Preliminary estimates are that the savings will exceed [redacted] over the FYDP.

(b)(1)
(b)(3)

E. C. Aldridge, Jr.

1 Attachment
Background Paper

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BACKGROUND PAPER

ON

DELAY OF THE SHUTTLE VANDENBERG LAUNCH SITE ACTIVATION

BACKGROUND

Prior to the Challenger mishap, we baselined the majority of DOD's [redacted] satellite missions on the Shuttle from the Vandenberg launch site. Shuttle at Vandenberg became mandatory in the late 1970s when the decision was made to end all expendable launch capability. [redacted] from Vandenberg. The first operational mission to be launched from Vandenberg was to have been the new [redacted] satellite in early FY 1987. By FY 1989, DOD would have achieved a flight rate of three to four Shuttle missions per year at Vandenberg. These consisted of replacement [redacted] modified to be compatible with the Shuttle. To achieve this flight rate at Vandenberg while maintaining a flight rate of 20 missions per year at the Kennedy Space Center (KSC), NASA had planned to dedicate one Orbiter to the Vandenberg launch site. (b)(1) (b)(3) (b)(3) (b)(1) (b)(3) (b)(3)

In the aftermath of the Challenger mishap, we rebaselined [redacted] and [redacted] to Complementary Expendable Launch Vehicle from Vandenberg. A key factor in developing that strategy was the 12-month Shuttle downtime assumption. Prior to the Challenger mishap, NASA was developing new solids (Filament Wound Cases), higher performing main engines (109% SSME), and an 800-pound reduction in Shuttle weight in order to meet the performance baseline established for [redacted] on the Shuttle. A joint NASA/NRO assessment determined that Shuttle was no longer capable of the performance growth required to launch [redacted] can be launched from either coast without any impact. Moving both missions to Kennedy allowed NASA to add Shuttle missions and thus further reduce the backlog of Shuttle missions. [redacted] was retained on Shuttle at Vandenberg to [redacted] Vandenberg) and as part of the assured access strategy. Because of the 12-month Shuttle downtime assumption, the delay of [redacted] was only six months. (b)(1) (b)(3)1) (b)(3)

(b)(1)
(b)(3)

DISCUSSION

Since the Rogers' Commission report, the Shuttle downtime assessment has significantly increased. NASA estimates vary from 18 months to 30 months or longer. This uncertainty has led to a revised plan for [redacted] and the Vandenberg launch site. Since the earliest possible launch for [redacted] is from KSC rather than Vandenberg, the first [redacted] was rebaselined to KSC.

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Further, since no other missions requiring Shuttle at Vandenberg are scheduled until the mid-1990s, the [redacted] mission was also rebaselined to KSC. The Shuttle processing time for KSC is half the time required at Vandenberg. This plan will also allow NASA to add more Shuttle missions, further reducing the backlog of missions.

While providing the earliest [redacted] launch opportunity, this plan offers [redacted] In the absence of a Shuttle waiver, (b)(1) [redacted] achievable from KSC for the first [redacted] (b)(3) (b)(3) [redacted] However, the Intelligence Community believes that the value of obtaining [redacted] a year earlier from [redacted] exceeds the value of [redacted] Thus, the plan is to launch [redacted] at the earliest opportunity on Shuttle from KSC.

Since no missions other than [redacted] are scheduled for Vandenberg until the mid-1990s and [redacted] can be launched from KSC, the Shuttle capability should be delayed. The savings associated with this delay can be used as an offset for DOD Shuttle recovery. The annual upkeep of the Vandenberg Shuttle facilities is projected to be [redacted] Much of this cost can be avoided while maintaining the option to activate this capability by FY 1992. At the Vandenberg launch site, we will complete the currently planned modification to the launch mount and testing including form, fit, and function testing with the Orbiter Columbia (planned for September 1986 through May 1987). The facility will then be placed in a caretaker status. The caretaker costs are being defined. However, the initial plan is to retain only the minimum work force required to insure that the facility remains current with all Shuttle modifications. The costs required to activate the facility are also being defined. We would expect that upon completion of the cost definition, the savings from the activation delay at Vandenberg would permit up to [redacted] to be allocated to the space launch recovery effort.

(b)(1)
(b)(3)

BOTTOM LINE

In order to protect our options for SDI, [redacted] and NASA's Space Station, the Vandenberg Shuttle capability should be retained for future high inclination launches. The Vandenberg Shuttle launch facility should be placed in a caretaker status and the funds to reactivate remain protected in the DOD budget. This reactivation could coincide with the NASA planned availability of the fourth Orbiter or occur when the Shuttle has achieved a stable launch rate and the backlog is worked off.

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