

RECORD OF DECISION

Evolved Expendable Launch Vehicle (EELV)

June 1998

I. INTRODUCTION

This Record of Decision (ROD) documents my decisions regarding the continued development and deployment of EELV systems to replace current Atlas IIA, Delta II, and Titan IVB launch systems. The ROD was prepared in accordance with the National Environmental Policy Act (NEPA), the President's Council on Environmental Quality (CEQ) regulations implementing the Act (40 Code of Federal Regulations 1500-1508), Department of Defense (DoD) Regulation 5000.2, and Air Force Instruction (AFI) 32-7061, which implements these regulations through the Environmental Impact Analysis Process (EIAP). The decisions included in this ROD have been made in consideration of the information contained in the Final Environmental Impact Statement (FEIS) for the EELV program. The discussions of preferences among alternatives include economic and technical considerations, agency statutory missions, and national policy factors balanced in making the decision recorded here, and state how those considerations entered into the decision.

Background: The decision to begin the EELV program emanated from the 1994 Presidential tasking to the Secretary of Defense to provide a plan for the improvement and evolution of the current expendable launch fleet, based largely on economic, technical and operational considerations. Launch costs are the main focus of the program, which has a threshold of 25% savings as a mandatory requirement; this translates to over \$5 billion over the 20 year program. The EELV system is designed to be modular with only flight worthy components arriving at the launch base. This approach will reduce manufacturing costs and allow the government to leverage off the commercial market to reduce overall launch costs. By delivering flight worthy hardware to the launch bases, nominal on pad launch processing will be reduced. Failing components can be easily replaced with working hardware, thereby reducing processing and contingency turnaround times. The EELV program will also reduce Air Force involvement in launch processing and will therefore reduce required operations and maintenance funding. Evolved from current expendable launch systems and new applications of existing technology, EELV will support military, intelligence, civil, and commercial mission requirements.

Purpose and Need: In 1994, representatives from the defense, intelligence, civil, and commercial space sectors developed a Space Launch Modernization Plan (SLMP) to evaluate national space launch systems and to improve the United States' launch capability. The SLMP contained four alternatives for the modernization of the United States' space launch capabilities:

- Sustain existing launch systems
- Evolve current expendable launch systems (EELV)
- Develop a new, expendable launch system
- Develop a new, reusable launch system.

On August 5, 1994, the President signed the National Space Transportation Policy, tasking the Secretary of Defense to provide an implementation plan for improvement and evolution of the current Expendable Launch Vehicle fleet. On October 25, 1994, the Deputy Secretary of Defense signed the National Space Implementation Plan for National Space Transportation Policy, which identified the EELV program as the Department of Defense's (DoD's) solution for reducing the cost of launches.

The EELV systems are intended to meet the requirements of the U.S. government executable National Mission Model (NMM), both medium and heavy lift, at a lower launch and recurring cost than the present expendable launch systems. EELV launch service initiatives are expected to greatly enhance present U.S. launch capabilities and DoD technology. The EELV would be DoD's source of expendable medium and heavy space lift transportation to orbit through 2020. The EELV will provide capabilities to launch unmanned DoD, NASA, and other payloads to orbit. The primary requirement of EELV systems is to provide the capability for lifting medium (2,500 to 17,000 pounds) and heavy (13,500 to 41,000 pounds) payloads to orbit. Cape Canaveral Air Station (CCAS) and Vandenberg Air Force Base (VAFB) are the only locations within the United States that currently provide space launch capabilities sufficient to support EELV systems.

Decision to be Made: The decision to be made is whether the Air Force will participate in the development and operation of EELV systems. Participation may include funding development of EELV systems, purchase of launch vehicles or services, and/or Air Force authorization of the use of government property.

Public Involvement: The Notice of Intent (NOI) to prepare an Environmental Impact Statement (EIS) for EELV systems was published in the *Federal Register* on February 19, 1997. The Air Force held scoping meetings on March 11 and 13, 1997 to receive comments from the public regarding the scope of issues to be addressed and to identify significant issues to be addressed related to the proposal. A Draft EIS (DEIS) was filed with the U.S. Environmental Protection Agency (U.S. EPA) on December 12, 1997, and

public hearings on the DEIS were held on January 13 and 15, 1998, at which the Air Force presented the findings of the DEIS and invited public comments. All public comments received during the 45-day public comment period following the publication of the DEIS were considered in developing the FEIS. The FEIS was filed with the U.S. EPA on May 1, 1998 and a notice of availability was published in the *Federal Register* on May 8, 1998.

II. ALTERNATIVES CONSIDERED

The Acquisition Strategy for EELV involved utilization of performance specifications rather than design specifications. As a result, each potential EELV contractor was required to design and develop its best proposal for meeting the government requirements, including 25-50% cost savings, compliance with all applicable environmental laws and regulations, and other specified criteria (e.g. prohibition on the use of Class I Ozone Depleting Substances (ODS)). Therefore, reasonable alternatives which met the project's purpose and need requirements were limited to the Proposed Action, which included two contractors' designs as Concept A and B and the combination A/B as discussed more fully, below. Within this context, the EIS analyzed the Proposed Action and the No Action Alternative as required by CEQ regulations.

Proposed Action: The Proposed Action is the continued involvement by the Air Force in the development and deployment of EELV systems to replace existing launch vehicles. Three separate concepts for the implementation of this Proposed Action were analyzed within the EIS. The first two, concepts A and B, depict each of the two contractor EELV concepts: that of the Lockheed Martin Corporation (Concept A) and that of McDonnell Douglas Aerospace, a wholly owned subsidiary of The Boeing Company (Concept B). Both of these proposed systems are evolved from current launch vehicle systems. The number of launches analyzed under both concepts for the EIS includes the government National Mission Model (NMM), plus 16 commercial launches per year. Under these concepts, only one of the two contractors would continue to develop and use an EELV system. The third option, Concept A/B, depicts a scenario under which both contractors would continue with the development and use of EELV systems. For analysis purposes, under Concept A/B each contractor is assumed to launch 50 percent of the combined total of EELV flights.

In the long term, development of EELV is the environmentally preferred alternative since current systems use more solid and hazardous propellants during processing and flight. EELV will substantially reduce low atmosphere air emissions. EELV environmental impacts are largely short-term and associated with the construction activities. EELV will modify or construct new facilities that will take advantage of pollution prevention technologies, and use new more efficient management practices that reduce processing time and hazardous waste generation.

Concept A - Lockheed-Martin: Under Concept A, Lockheed-Martin would use Space Launch Complex (SLC)-41 at Cape Canaveral Air Station and SLC 3-West at Vandenberg AFB for EELV system operation. The use of these complexes involves modifications and new construction to adapt them to the new launch vehicles. Additionally, other proposed new or modified support facilities at both locations would be used. Support facilities include: unloading, storage, payload processing and vehicle assembly. The environmental effects of the construction and operation of the facilities were analyzed and the appropriate mitigation methods will be accomplished.

The Concept A family of EELV vehicles would consist of medium lift vehicles and heavy lift vehicles. The medium vehicle would use one booster and either a storable upper stage (SUS) or a cryogenic upper stage (CUS). The heavy lift vehicle would use three boosters and an SUS or a CUS. All concept A vehicles will use the Russian-designed RD-180 booster engine, which is fueled with kerosene fuel (Rocket Propellant 1 [RP-1]) and liquid oxygen (LO₂). Avionics would be used for guidance, power, telemetry, ordnance separation, and range safety. The Flight Termination System (FTS) would provide the capability for range personnel to terminate a vehicle undergoing erratic flight before it could endanger people or property.

Concept B – The Boeing Company: Under Concept B, The Boeing Company would use SLC-37 at Cape Canaveral AS and SLC-6 at Vandenberg AFB for EELV system operation. The use of these complexes involves modifications and new construction to adapt them to the new launch vehicles. Additionally, other proposed new or modified support facilities at both locations would be used. Support facilities include: receipt/inspection, storage, payload processing, upperstage processing and vehicle integration. The environmental effects of the construction and operation of the facilities were analyzed and the appropriate mitigation methods will be accomplished.

The Concept B EELV would consist of several variations of a Delta IV (DIV) launch vehicle, including medium (DIV-M), and large (heavy) (DIV-H) launch vehicles. This system would use a common booster core (CBC), with a Delta Cryogenic Upper Stage (DCUS), or Heavy Delta Cryogenic Upper Stage (HDCUS) as second stages, depending upon the payload requirements. The medium vehicles would use one CBC first-stage core booster; the heavy vehicles would use one first-stage CBC and two CBC strap-ons. The strap-ons are the standard version of the CBC with Titan IV nose cones and appropriate separation hardware added. They have shorter burn times than the center core and would be jettisoned prior to burnout of the center core vehicle. A Delta IV Medium Plus (DIV-M+) vehicle, consisting of a DIV-M with solid rocket motors (SRMs), would be utilized for some commercial missions.

The Boeing medium and heavy upper stages would be fueled by liquid hydrogen (LH₂) and LO₂, and all propellant transfer would occur on the launch pad. Avionics would be

used for guidance, power, telemetry, ordnance separation, and range safety. The Flight Termination System (FTS) would provide the capability for range personnel to terminate a vehicle undergoing erratic flight before it could endanger people or property.

Concept A/B

Concept A/B was evaluated in the EIS based on an acquisition strategy change that maintains competition for launch services by potentially awarding contracts for both concept A and B. Under this strategy both concept A and B may be implemented and the government NMM is equally split between both potential contractors.

No Action Alternative: Under the No-Action Alternative, EELV would not be developed or deployed, and the Atlas IIA, Delta II, and Titan IVB launch vehicles would continue to provide space launches to meet the requirements of the government portion of the NMM, both medium and heavy lift. These launch vehicles would provide DoD's source of expendable medium and heavy spacelift transportation to orbit through 2020, and would continue at existing launch complexes at both CCAS and VAFB, utilizing existing manning levels. The infrastructure, operational procedures, and safety systems are in place for these launch vehicles at both CCAS and VAFB. The No-Action Alternative does not include analysis of commercial launches since the commercial market for the current systems was speculative. Both contractors, however, had commercial forecasts for EELV. Therefore commercial launches were included in the EIS analysis.

III. ENVIRONMENTAL EFFECTS AND MITIGATION

The EIS evaluated the potential impacts of implementing any one of three concepts under the Proposed Action. These include Concept A, Concept B, and Concept A/B (a combination of Concepts A and B). Since Concept A/B includes all of the ground-disturbing activities for both Concepts A and B, it has the greatest potential for environmental impact and will, therefore, be used in this description of environmental effects and mitigations. If only Concept A or B were implemented, then only the mitigations described for that portion of Concept A/B would apply. The Air Force is committed to implementation of all mitigation and monitoring requirements agreed to during consultations/permitting processes with cognizant regulatory agencies. It is expected that in most instances mitigation/monitoring programs will be similar to requirements for existing launch programs.

The impacts on 15 separate environmental resource areas of implementing the Proposed Action were analyzed in the EIS. These resource areas included local community, land use and aesthetics (including coastal zone management), transportation, utilities, hazardous materials and hazardous waste management, health and safety, geology and soils, water resources, air quality (lower atmosphere), air quality (upper atmosphere),

noise, orbital debris, biological resources, cultural resources, and environmental justice. Resource areas identified as having potentially significant impacts included those associated with coastal zone management, hazardous materials and hazardous waste management, geology and soils, water resources, air quality (lower atmosphere), air quality (upper atmosphere), noise, orbital debris, biological resources, and cultural resources. These resources are addressed in detail below:

A. Coastal Zone Management

The Air Force has determined that the proposed EELV activities are consistent with both Florida and California coastal zone management programs. The Florida Department of Community Affairs has concurred with this determination for Cape Canaveral AS, FL. The California Coastal Commission has also concurred with the Air Force's position, although further coordination will be accomplished for SLC-3W wetlands and Boathouse Dock area dredging. Similarly, the California Coastal Commission will be informed on the outcome of consultations currently being conducted with the U.S. Fish and Wildlife Service (USFWS) in accordance with Section 7 of the Endangered Species Act.

At Vandenberg AFB, the annual number of beach closures is expected to increase as a result of the increased number of launches. However, 30th Space Wing will attempt to minimize beach closure impacts through consideration of recreational impacts in its launch planning and scheduling, a mitigation measure associated with the Coastal Zone Consistency document.

B. Hazardous Materials and Hazardous Waste Management

The amount of hazardous materials used per launch with implementation of Concept A/B would be comparable to amounts from current programs. Total annual amount of hazardous materials used and hazardous waste generated would be greater as a result of the increased annual launch rate (including, as it does, commercial payloads). Both installations, however, have facilities and procedures in place to store and manage the increased hazardous materials and waste generated during the operational phase of the program therefore there is no expected impact. In addition to utilizing existing government waste storage and disposal facilities, the contractor will be directly responsible for disposal of hazardous wastes to minimize impacts during the construction phase. Although launch rates would increase, less processing would occur on site, because most vehicle components would be delivered to the launch location in flight-ready condition. No Class I ODSs would be utilized for EELV activities. EELV activities would be coordinated with installation environmental personnel to reduce the effect of increased hazardous waste on pollution prevention goals. In lieu of utilizing existing government waste storage and disposal facilities, the contractor may be directly responsible for disposal of hazardous wastes. If so, the contractor would be responsible for ensuring that all wastes are managed and disposed of in accordance with all applicable

federal, state, and local regulations. Construction activities at both installations would be coordinated with Installation Restoration Program personnel to minimize impacts to remediation activities and the EELV program schedule.

C. Geology and Soils

Construction activities would uncover and disturb soils, increasing the potential for wind and water erosion. At both installations, stormwater pollution prevention plans would be implemented to reduce erosion of soils before and during construction activities. At Vandenberg AFB, new facilities and facility modifications would incorporate earthquake-resistant designs to meet requirements for Seismic Zone IV.

Under Concepts B and A/B, the Boathouse Dock harbor channel would be dredged. The dredging would be performed to its previously dredged depth, thus eliminating impacts to undisturbed sediments. Disposal sites under consideration for the dredged material are on the beaches down current of the harbor. This type of disposal would be intended to support replenishment of down current beaches through the natural action of longshore currents. Preliminary chemical and grain size analysis of harbor sediments indicates that they may be acceptable for beach disposal. More comprehensive chemical and grain size analyses would be required as a part of the permitting process prior to approval of dredging and disposal areas. Any permits required for dredging activities under Section 404 of the Clean Water Act (CWA), Section 10 of the Rivers and Harbors Act of 1899, and under Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972, or other applicable law will be obtained before such activities are commenced.

D. Water Resources

Under Concept A/B, water use would increase over current levels (as a result of the addition of commercial launches). At both installations, water would be recycled on site after launch or disposed of in accordance with applicable requirements. Adequate water supplies are available to support EELV activities at Cape Canaveral AS and Vandenberg AFB. Because the construction areas at both installations are greater than 5 acres, National Pollutant Discharge Elimination System (NPDES) permits for storm water discharge would be required. Under the NPDES permit requirements, storm water control measures to reduce potential impacts to surface water would be implemented. Standard construction practices and adherence to permit requirements and applicable regulations would minimize adverse impacts to water resources. On-pad or accidental release of small quantities of propellants are unlikely to occur. However, if there is a release, spilled propellants would be collected and disposed of by a certified disposal subcontractor in accordance with the installation Spill Prevention, Control, and Countermeasures plan.

E. Air Quality (Lower Atmosphere)

During EELV construction activities, there would be an increase of local concentrations of criteria pollutants. However, these emissions would be temporary and short-term and would not jeopardize either region's attainment status for these pollutants. Application of water during ground-disturbing activities and efficient scheduling of equipment use would mitigate air quality impacts during construction. Launch vehicle preparation and assembly activities would create short-term air emissions. EELV systems would have lower emissions than the current launch vehicles, on a per launch basis, and no adverse impacts are anticipated.

Vandenberg AFB is located in an area designated by the U.S. EPA as in serious nonattainment for ozone, therefore, the EELV program activities must comply with Clean Air Act requirements mandating that federal actions comply with the applicable State Implementation Plan to achieve attainment. An air conformity applicability analysis was conducted for EELV activities at Vandenberg AFB; all emissions were below the de minimis thresholds for conformity. Stationary generators used during construction were identified as a key source of ozone precursor emissions in the EELV project since emissions from such generators could be avoided by using other power sources. The planned use of these generators will not cause VAFB to exceed conformity thresholds. Nevertheless, both contractors will be encouraged to minimize the use of generators for construction to the extent possible.

F. Air Quality (Upper Atmosphere)

Under Concept A, launches would produce no estimated emissions which would contribute to degradation of the stratospheric ozone layer. Under Concepts B and A/B, launches involving use of solid rocket motors (commercial missions only) would emit aluminum particulates and chlorine compounds into the stratosphere. However, these emissions would be substantially less than current launch vehicle emissions to the stratosphere.

G. Noise

Launch noise associated with EELV launches would be short-term and temporary. No human or structural impacts are expected. Sonic boom footprints for Cape Canaveral AS would be far offshore over the Atlantic Ocean. At Vandenberg AFB, sonic booms could occur over the Channel Islands. Potential noise and sonic boom impacts on biological resources are addressed in Section III Biological Resources, below.

H. Orbital Debris

All EELV program vehicles would be designed to minimize the size and quantity of orbital debris. A small, incremental contribution to the existing orbital debris population would occur under all EELV concepts through the fragmentation of upper stages. Under Concepts B and A/B, the third-stage rocket motor for the small vehicle would enter into elliptical orbit. Larger chunks of unburned propellant or slag may be released; however, these particles decay rapidly, and impacts are expected to be temporary and minor. Mitigation measures include selecting orbital parameters to minimize the creation of debris and designing and building the EELV launch vehicle upper stages to resist environmental degradation from atomic oxygen and solar radiation.

I. Biological Resources

Potential impacts to biological resources due to EELV activities can be divided into two general categories; construction and operations. Construction impacts would generally be due to ground disturbance and facility construction while operations impacts are due to noise and sonic boom, extreme heat and fire in the immediate vicinity of the launch pad, exterior lighting, and deposition associated with launches using solid rocket motors.

Cape Canaveral AS.

Concept A: Under Concept A at SLC-41, impacts to threatened and endangered species are expected to be minimal. No occupied habitat for listed species will be directly affected during construction of Concept A facilities. However, to mitigate the threat to sea turtle nesting survival caused by artificial light sources, only low-pressure sodium lighting fixtures would be used for exterior lighting at SLC-41. A new light management plan will be required for construction at SLC-41; this plan will be submitted to the Florida Department of Environmental Protection (FDEP) for review and comment during the Section 7 Endangered Species Act consultation process with the USFWS.

Up to 10.9 acres of jurisdictional wetlands could be affected during the construction of the assembly facilities south of SLC-41. Project planning and facility design have been conducted to minimize the potential impact to wetlands through the avoidance of direct or indirect disturbance of quality salt marsh communities. Proposed mitigation measures include the replacement at a ratio of 1.5 to 1 for wetlands lost to removal of a 1.4-mile dike and at a ratio of 7.4 to 1 enhancement of existing wetlands through reconnection of a 54-acre impoundment to the adjacent Banana River. This effort would be monitored to minimize the effects on manatees and a 3-year biological monitoring program would be conducted to determine if impoundment restoration goals are being achieved. Final mitigations will be determined through the Section 404 permit process in consultation with the U.S. Army Corps of Engineers, the USFWS, and the St. John's River Water Management District (SJRWMD).

Concept B: Under Concept B at SLC-37, the impacts to endangered or threatened species would be minimal. However, some existing habitat for the southeastern beach mouse, federally listed as threatened, will be directly affected by construction and operations at SLC-37. Impacts to the beach mouse have been addressed in a biological opinion issued on 18 May 1998, by the USFWS. The opinion indicates that, while construction and operations at SLC-37 are not likely to jeopardize the continued existence of the southeastern beach mouse, the USFWS has identified reasonable and prudent measures necessary to minimize incidental take. These measures include implementation of a trap and release program to remove the mouse from areas to be impacted by construction and the construction of a flame deflector to reduce impacts to the mouse during launches.

To mitigate the threat to green sea turtle nesting survival caused by artificial light sources, only low-pressure sodium lighting fixtures would be used for exterior lighting at SLC-37. A new light management plan will be required for construction at SLC-37; this plan will be submitted to the FDEP for review and comment during the Section 7 Endangered Species Act consultation process with the USFWS. Prior to construction, a biological survey would be conducted to identify and relocate gopher tortoises or other listed species, such as the indigo snake.

The construction of the Horizontal Integration Facility (HIF) southwest of SLC-37 may impact the federally listed threatened Florida scrub jay. Surveys for scrub jay nests will be conducted prior to construction and vegetation clearing would be limited to that absolutely necessary for the project. Scrub jay habitat would also be added at a ratio of 3 to 1 to replace area that is cleared and a 5-year monitoring program would be implemented to observe the species. Final mitigations will be determined through Section 7 Endangered Species Act consultation with the USFWS.

Up to 0.68 acre of jurisdictional wetlands could be affected during the construction of the HIF. Impacts to wetlands from construction of the HIF will be mitigated by creating high quality wetlands in the newly created scrub jay habitat at a ratio of 1 to 1. Final mitigations will be determined through the Clean Water Act, Section 404, permit process in consultation with the USACE, the USFWS, and the St. John's River Water Management District (SJRWMD).

Vandenberg AFB.

Concept A: Under Concept A at SLC-3W, impacts to threatened, endangered, or sensitive species from a launch are not expected to jeopardize the existence of any species. Launch noise and sonic booms associated with EELV launches would be infrequent, short term, and temporary. Temporary, minor impacts to sensitive species

(startle effects) would occur from launch noise. Federally and state-listed Southwestern willow flycatchers have been known to nest along the Santa Ynez River but, to date, their reproductive success does not appear to be affected by launches from this or other nearby facilities. Federally endangered least terns and federally threatened snowy plovers have shown minimal permanent effects from launches. The peregrine falcons, federally and state-listed as endangered, could be affected by the noise generated by launches during their nesting season. Final mitigation or monitoring for these species would be determined in consultation with the USFWS in accordance with Section 7 of the Endangered Species Act.

Sonic booms from launch activities may miss the Channel Islands entirely or may impact them with a maximum overpressure of up to 6 to 8 pounds per square foot (PSF) in certain small areas depending on the launch vehicle, trajectory, and climate conditions. Current launches from Vandenberg AFB require a take permit from the National Marine Fisheries Service (NMFS) to address the incidental harassment of marine mammals under the Marine Mammal Protection Act. The Air Force has submitted a programmatic take request to address incidental harassment of marine mammals from space launches. The EELV program vehicles could be included under the authority of this permit. Mitigation and monitoring requirements for marine mammals would be determined as a part of the programmatic take permit process or in separate consultation with the NMFS, if necessary.

A 0.03-acre willow wetland area may be disturbed during Concept A construction activities. Permitting under Section 404 would be completed prior to filling of this wetland area. Mitigation requirements, if any, would be determined as a part of the permit process with the USACE.

Concept B: Under Concept B, the impacts to open-ocean species from launch noise would be similar to those described for Concept A. Harbor seals may be disturbed temporarily by the off-loading of vehicle components from barges at the Vandenberg AFB Boat Dock; however, no permanent impacts are expected. Boat dock operations may cause temporary impacts to roosting California brown pelicans and sea otters; however, no permanent impact is expected because these operations would be infrequent. The amount of material to be dredged from the boathouse dock channel would be less than the amount dredged in the 1980s. Impacts due to dredging and spoil disposal would be mitigated in accordance with permit requirements described in Section III.G. Soils and Geology. Mitigation of the dredging activity is likely to include monitoring of sensitive species during the dredging activity to ensure that impacts are minimized.

The acidic emissions caused by solid rocket booster launches from SLC-6 have the potential to affect the shallow Cañada Honda Creek where listed species including the tidewater goby, the unarmored threespine stickleback, and the red-legged frog are found, but only if the wind is atypical (i.e., from the south). The red-legged frog found in the

SLC-6 sanitary evaporation ponds may be startled by launch noise; however, these effects are expected to be temporary.

Noise impacts to threatened and endangered species at or near SLC-6 would be similar to those at SLC-3W and would also be minimal. Effects of launches on willow flycatchers along the Santa Ynez River would be reduced because SLC-6 is farther from the river. Launches from SLC-6 would likely benefit least terns because launches from SLC-6, which is farther from least tern nesting areas, would replace launches from SLC-2. The peregrine falcon could be impacted if launches occur during the nesting season. For launches from SLC-6, the western snowy plover, the California brown pelican, and the peregrine falcon, could be monitored to assess individual and cumulative impacts. Final mitigation or monitoring for these species would be determined in consultation with the USFWS in accordance with Section 7 of the Endangered Species Act.

Sonic booms from Concept B launch activities would produce impacts comparable to those discussed above for Concept A. The same permit and mitigation discussion would also apply to Concept B.

J. Cultural Resources

Cape Canaveral AS. Construction activities at Cape Canaveral AS would not affect any prehistoric or historic archaeological sites listed on or eligible for the National Register of Historic Places (National Register), nor any archaeologically sensitive areas. Under Concept B, one facility that would require modification (Hangar C, Building 1348) may possess historical significance. Consultation with the Florida State Historic Preservation Officer (SHPO) is in progress; any required mitigations would be developed in consultation with the SHPO. No traditional resources have been identified in the Area of Potential Effect (APE).

Vandenberg AFB. Construction activities associated with Concept A would not affect any National Register-listed, eligible, or potentially eligible prehistoric or historic archaeological sites, nor any archaeologically sensitive areas. SLC-3W has been determined eligible for inclusion on the National Register under the Cold War historic context. However, no requirement for mitigation is anticipated for the construction required at SLC-3W due to previous mitigation completed under other programs. Under Concept B, construction would occur at SLC-6, which is an archaeologically sensitive area. Ground-disturbing activities would require archaeological and Native American monitoring. No traditional resources have been identified in the APE. Consultation with the California SHPO and the Chumash Indian Tribe regarding the EELV program will be conducted by Vandenberg AFB.

IV. DECISION

Based upon all of the foregoing, it is my decision to permit the continued development and deployment of EELV Concept A/B. This ROD serves as public notification of my decision. As outlined above, this decision has been made based on economic, technical, operational and environmental considerations. All practicable means to avoid or minimize environmental harm from the proposed action either have been or will be adopted in accordance with this ROD. Appropriate mitigation and monitoring measures will be adopted as set forth in the EIS and this ROD.

Original Signed,

8 June 1998

GEORGE B. WILLIAMS, Colonel, USAF
Acting Deputy Assistant Secretary
(Science, Technology and Engineering)