RECORD OF DECISION
ENVIRONMENTAL IMPACT STATEMENT
SPACEX STARSHIP-SUPER HEAVY CAPE CANAVERAL SPACE FORCE STATION, FLORIDA

INTRODUCTION

The Department of the Air Force (DAF) is issuing this Record of Decision (ROD) for the Final Environmental Impact Statement (FEIS) for Starship-Super Heavy at Cape Canaveral Space Force Station (CCSFS), Florida. The DAF is issuing this ROD per its Memorandum on Initial DAF Policy for Implementation of the National Environmental Policy Act (NEPA), dated July 7, 2025, and Department of War's (DOW) NEPA Implementing Procedures (June 30, 2025). The DAF considered all the alternatives, information, and analysis, and feedback submitted by state, tribal, and local governments, and the public, along with other relevant matters, during development of the FEIS. The Unique Identification number for this NEPA action is EISX-007-57-USF-1730277197.

This ROD documents the following:

- The DAF's decision;
- The alternatives considered;
- Factors considered in the decision;
- Whether the DAF adopted all practicable means to avoid or minimize environmental harm from the selected alternative and, if not, why not;
- Mitigations; and;
- A Finding of No Practicable Alternative (FONPA) to address wetland and floodplain impacts.

DECISION SYNOPSIS

The DAF has decided to allow Space Exploration Technologies Corporation (SpaceX) to redevelop Space Launch Complex (SLC)-37 at CCSFS for Starship-Super Heavy launch and landing operations as described in the Decision paragraph below. The DAF will execute a real property agreement and other agreements between the United States Space Force (USSF) and SpaceX for SpaceX's use of SLC-37 for Starship-Super Heavy launch and landing operations, with a focus on Starship-Super Heavy missions supporting the DAF, DOW, and other national security requirements and objectives. Starship-Super Heavy operations at CCSFS will ensure mission-essential functions for the DOW, enable USSF to meet current and future mission requirements, and support civilian launch capabilities needed to meet projected rapid increase in launch requirements (*FEIS § 2.1)*. In addition to the real property agreement, Space Launch Delta 45 (SLD 45) would approve the program on the range, including modifications to the program for access to the Eastern Range; Starship-Super Heavy would not be accepted onto the Eastern Range until all requirements of the CCSFS Range Safety Office are met.

ALTERNATIVES CONSIDERED

The FEIS analyzed two alternatives: the Proposed Action (*FEIS § 2.1)* and the No Action Alternative (*FEIS § 2.1)*.

Under the Proposed Action, SpaceX would redevelop and operate (which includes the transportation of launch vehicle components, prelaunch operations, Starship-Super Heavy launches, Super Heavy landings, and Starship landings) SLC-37 at CCSFS to support Starship-Super Heavy launch and landing operations. The DAF would execute the required real property and other agreements to authorize SpaceX's use, including: construction, operation, maintenance and repair of launch support facilities, space recovery support facilities and other space transportation infrastructure and launch activities including launch, launch services as defined in 51 U.S.C. § 50501, and reentry as defined in 51 U.S.C. 5 § 0902, of SLC-37. Various road improvements at CCSFS and Kennedy Space Center (KSC) would be necessary to facilitate Starship-Super Heavy launch vehicle transport. Therefore, under the Proposed Action, SpaceX would also widen Phillips Parkway from SLC-37 to Pad A Bypass Road on KSC for approximately 7 miles. Old A1A would also be widened and improved for approximately 1 mile from SLC-37 to Phillips Parkway. SpaceX would also add a turn radius at the northeast corner of Phillips Parkway and Patrol Road, and a second turn radius at the northwest corner of Patrol Road and Beach Road (*FEIS § 2.1)*. In addition, SLD 45 would need to approve the program on the range, including modifications to the program. These modifications encompass changes to planning, construction, operations, and vehicle configurations.

Under the No Action Alternative, SLC-37 would not be redeveloped for Starship-Super Heavy, Starship-Super Heavy SLC-37 launch, and landing operations would not occur, and the DAF would not enter into any real property or other agreement with SpaceX for the property. CCSFS and KSC would remain active launch facilities, and launch activities would likely increase in the future. The No Action Alternative includes all projects currently authorized for implementation with signed NEPA decision documents (*FEIS § 2.2)*.

MITIGATION

The DAF will implement mitigation measures to avoid, minimize or compensate for environmental impacts associated with the Starship-Super Heavy construction, launch and landing at SLC-37 (*ROD Appendix A*). ROD Appendix A specifies the mandatory mitigation and adaptive management measures related to the redevelopment of SLC-37 and Starship-Super Heavy launch and landing operations. SpaceX will comply with the mitigations as required.

To track the mitigations specified in ROD Appendix A, the DAF will expeditiously develop a Mitigation Plan. Where mitigation requires habitat restoration or offsets, the cost of such restoration or offset will be determined based upon the amount of species' habitat that is permanently lost due to construction.

The Mitigation Plan will:

- Identify specific mitigation actions;

- Identify the principal and any subordinate organization responsible for oversight and execution of each mitigation; and
- Present the timing for execution of the mitigations.

WETLANDS AND FLOODPLAINS FINDING OF NO PRACTICABLE ALTERNATIVE

Executive Order (EO) 11988, Floodplains Management, and EO 11990, Protection of Wetlands, (May 24, 1977) require Federal agencies to avoid to the extent possible the long and short-term adverse impacts associated with the occupancy and modification of floodplains and wetlands, respectively, and to avoid direct and indirect support of development in floodplains and the destruction and modification of wetlands wherever there is a practicable alternative. Alternatives to the construction activities proposed under the Proposed Action were considered, as described in Section 1.5.1 of the FEIS, and no practicable alternative to implementing the Proposed Action at SLC-37 was found. Based on the information contained withing the EIS, I determined that there is no practicable alternative to development within or affecting floodplain and wetlands from the Proposed Action (*FEIS § 3.11.2.1.1.3, a*nd *FEIS § 3.11.2.1.1.4*). Therefore, the Proposed Action is consistent with EO 11988 and EO 11990 because the implementation of the mitigation measures described in ROD Appendix A would ensure that adverse effects on the floodplains and wetlands are minimized.

DECISION

The DAF has selected the Proposed Action, after considering the potential environmental consequences of the Proposed Action and No Action Alternative analyzed in the FEIS, the comments and concerns of the public and other key stakeholders, and factors related to national defense, including mission support, physical infrastructure, capacity and environmental criteria, cost factors and military plans.

The DAF decision authorizes SpaceX to use SLC-37 at CCSFS to support Starship-Super Heavy launch and landing operations, including the redevelopment of SLC-37 and the other infrastructure improvements required and analyzed in the FEIS. Under this ROD, upon execution of the real property agreement and associated documentation, and as analyzed in the FEIS while adhering to the mitigation measures specified in Appendix A to this ROD, SpaceX is authorized to: (1) undertake construction activities necessary to re-develop SLC-37 and associated infrastructure for Starship Super Heavy operations; (2) conduct prelaunch operations, including the transportation of launch vehicle components and static fire tests; and (3) conduct up to 76 launches and 152 landings annually once a supplemental analysis of airspace impacts by the Federal Aviation Administration (FAA) is completed. The DAF will assess the airspace analysis conducted by the FAA and finalize a revised ROD prior to Starship-Super Heavy launches or landings occurring.

By implementing the mitigation measures identified in this ROD (*ROD Appendix A*) and adhering to the Mitigation Plan described herein, the DAF has adopted all practicable means to avoid or minimize environmental harm. I certify that the DAF has considered all relevant information raised in the NEPA process and that the NEPA process has closed.

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MICHAEL E. SAUNDERS, P.E., SES, DAF
Acting Assistant Secretary of the Air Force
(Energy, Installations and Environment)

(Date)

1 Attachment:

1. Appendix A: Mitigation and Adaptive Management Measures

Appendix A – Mitigation and Adaptive Management Measures

Mitigation and Adaptive Management Measures will be coordinated between CCSFS environmental staff and SpaceX to ensure measures are implemented timely and appropriately

Resource and FEIS Section/Page	Mitigation and Adaptive Management Measure(s)
Air Quality and Resiliency (FEIS § *3.1.3*)	• SpaceX and the DAF will engage in an adaptive management strategy to proactively mitigate any potential adverse air quality impacts and better define potential air impacts as new and improved information becomes available. Specific discussions on adaptive management strategies and measures will be developed in the comprehensive Mitigation Plan as a separate and independent document. • SpaceX will incorporate mitigation and control measures, such as frequent use of water for dust-generating activities, to minimize fugitive particulate matter emissions. • Resiliency measures, such as flood protection and hurricane resilient structures, will be implemented to increase the protection of the project area from weather-related risk impacts.
Airspace and Maritime Management (FEIS § *3.2.3*)	Through compliance with federal requirements, regulations, and laws, no additional mitigation measures have been identified at this time.
Infrastructure (FEIS § *3.3.3*)	• Traffic management mitigation measures such as phased construction, detours and signage, advance notifications of potential disruptions, alternate routes, and limiting the movement of oversize vehicle loads and deliveries to off-peak hours will be coordinated with SLD 45, as applicable. • If roadway damage were directly correlated to SpaceX activities, SpaceX will be required to work with SLD 45 to remedy the damage. • Construction mitigation measures such as utility identification, real-time locating, site-specific worker training, and a system for incident reporting will be implemented. SpaceX will coordinate with utility companies and SLD 45 to schedule construction around any planned maintenance to minimize potential service disruptions. • Launch activities will be coordinated with local authorities to allow for proper roadway planning during high-profile launches. • Industrial wastewater will be retained in ponds within SLC-37 and reused to the extent possible. If discharging wastewater into the stormwater system became necessary, SpaceX will acquire an Industrial Wastewater Permit from the Florida Department of Environmental Protection and permission from St. Johns River Water Management District and then confirm the wastewater met the water quality criteria outlined in the required Florida Department of Environmental Protection Industrial Wastewater Permit for onsite disposal of launch-related wastewater.
Socioeconomics (FEIS § *3.4.3*)	• SLD 45 will aim to reduce scheduling conflicts between launch service providers and will develop mitigation strategies to reduce impacts from conflicts. • An official process for submitting claims associated with Starship-Super Heavy activities from SLC-37 will be established prior to the launch vehicle arriving at CCSFS. Once in place, the SLD 45 Public Affairs Office will notify the public and direct people to the necessary procedures, including the SpaceX insurance claims email (insurance@SpaceX.com).

Resource and FEIS Section/Page	Mitigation and Adaptive Management Measure(s)
Noise (FEIS § *3.5.3*)	• SpaceX will employ sound suppression systems such as water deluge and flame diverters to reduce noise from launch activities. • SpaceX will work with SLD 45 to notify the community of potential substantial noise and sonic booms events.
	• Structural damage claims will be investigated, and claimants compensated according to Federal Aviation Administration regulations, the Commercial Space Launch Act, and DAF policy. An official process for submitting claims associated with Starship-Super Heavy operations at SLC-37 will be established prior to the launch vehicle arriving at CCSFS, including the SpaceX insurance claims email (insurance@SpaceX.com).
Health and Safety (FEIS § *3.6.3*)	• Launch notifications will continue to be provided to the Child Development Center from KSC via kennedyspacecenter@dcnotify.com. KSC-PLN-5000_SIMS_Rev_B includes mitigation measures such as sheltering indoors to leverage the attenuation of the facility.
Cultural Resources (FEIS § *3.7.3*)	• SpaceX will retain the Launch Control Center (BR02790) at SLC-37. If damage were discovered, the SLD 45 Cultural Resources Manager will implement measures stipulated in the Programmatic Agreement (PA) to protect the affected historic property(s) from further damage while consultation with the Florida SHPO and other Consulting Parties takes place regarding the nature of the effect along with potential avoidance or minimization measures. • In the event of unanticipated discoveries during construction, such as encountering artifacts or human remains, subsurface disturbance in the vicinity will cease and the SLD 45 Cultural Resources Manager will be notified, and all project-related activities within one hundred (100) feet of the discovery will cease in order to avoid or minimize harm to the property. The response to unanticipated discoveries will be governed by the PA. • If monitoring results show that noise or sonic boom overpressures from launches and landings may adversely affect aboveground historic properties, archaeological resources, or Native American cultural properties within the Area of Potential Effects, these effects will be evaluated and mitigated as stipulated in the Programmatic Agreement.
Visual Resources (FEIS § *3.8.3*)	• External lighting will comply with Space Wing Instruction 32-7001, *Exterior Lighting Management*. SpaceX will develop and implement a Lighting Management Plan that will include measures to minimize the effects from nighttime lighting.

Resource and FEIS Section/Page	Mitigation and Adaptive Management Measure(s)
Biological Resources (FEIS § *3.9.3*)	• All areas of temporary disturbance will be reseeded with a certified weed-free, native plant mix in accordance with the DAF Integrated Natural Resources Management Plan and recommendations from the United States Fish and Wildlife Service. • SpaceX will adhere to guidelines for invasive species management in the DAF Integrated Natural Resources Plan and will implement the Invasive Plant Species Control Plan to eradicate noxious and invasive plant species as they appear on site. • For the southeastern beach mouse and Florida scrub-jay, temporarily disturbed habitat will be restored to its original condition within 1 year of the end of the temporary impacts. For permanently lost southeastern beach mouse and Florida scrub-jay habitat that is not included in the United States Fish and Wildlife Service southeastern beach mouse translocation effort (refer to Figure 2-8 of the Biological and Conference Assessment), actual acreages will be calculated once design plans are finalized. Within 30 days of SLD 45's receipt of SpaceX's final design plans, which will inform the amount of southeastern beach mouse and Florida scrub-jay habitat expected to be impacted, SLD 45 will provide SpaceX with habitat restoration or offset costs. For each phase of construction, payment for the initial year of required habitat restoration or offset will be made by SpaceX into the Canaveral Conservation Fund within 90 days of impact to a specific habitat area. Any changes in this timeline will be coordinated with, and authorized by, SLD 45 and the United States Fish and Wildlife Service. • If tricolored bats are found roosting in idle or abandoned structures scheduled to be demolished, the bats will be allowed to leave the structures before demolition begins. • Preconstruction surveys of construction areas will be completed for Florida scrub-jays. • To minimize the potential for impacts on eastern indigo snakes, United States Fish and Wildlife Service standard protection measures will be implemented.

Resource and FEIS Section/Page	Mitigation and Adaptive Management Measure(s)
	• A pedestrian survey will be conducted to locate and flag/stake all gopher tortoise burrows and burrows will be avoided to the maximum degree possible. The affected gopher tortoise burrows will be excavated, and captured tortoises will be relocated by a qualified biologist to a Florida Fish and Wildlife Conservation Commission-approved recipient site off CCSFS in accordance with Florida Fish and Wildlife Conservation Commission's permitting requirements. • Standard construction measures will be used to avoid runoff to nearby waterways. • Construction areas will be monitored for the presence of bird nests before beginning any earth-moving or demolition activities. If a nest with an egg is identified, SLD 45 biologists will be notified, and a determination will be made regarding whether work must be adjusted to avoid impacts on the nest. If a bald eagle nest is identified near SLC-37, the USFWS's National Bald Eagle Management Guidelines will be implemented. • The SLC-37 launch pad infrastructure will be designed to contain the entire heat plume within the SLC-37 fence line. • SpaceX will operate in a manner consistent with the requirements and goals of the Prescribed Burn Memorandum of Understanding (MOU), KCA-4205 Revision C (USSF, USFWS, and NASA 2025), unless superseded or revised, to the extent possible given constraints of sensitive payloads and mission operations. • SpaceX, in coordination with SLD 45 and the USFWS, will develop a monitoring plan to better understand operational impacts on the southeastern beach mouse and Florida scrub-jay. • No land-disturbing activities or construction will occur within the southeastern beach mouse habitat inside the fence line of SLC-37 prior to completion of the United States Fish and Wildlife Service trapping and relocation effort for southeastern beach mice. The USSF will coordinate with the USFWS to facilitate the trapping and relocation of southeastern beach mice from the approximately 20 acres of southeastern beach mouse habitat within the fence line of SLC-37. This translocation effort will also minimize impacts to individuals expected to occur within this construction area. Relocated mice will be transferred by the USFWS to a recipient site located outside CCSFS but within the species' current and historical range to reintroduce or augment an existing population. A siltation fence along a portion of the SLC-37 perimeter will be installed and maintained as a barrier to reduce the likelihood of the southeastern beach mouse reentering the area during both the trapping and subsequent construction activities.
Geology (FEIS § *3.10.3*)	• Standard erosion-control measures, such as erosion control blankets, silt fences, and check dams, will be deployed during construction.

Resource and FEIS Section/Page	Mitigation and Adaptive Management Measure(s)
Water Resources (FEIS § *3.11.3*)	• SpaceX will coordinate groundwater dewatering efforts with CCSFS, KSC, and the FDEP to prevent adverse effects on groundwater quality or flow. • Compensatory mitigation will be developed during the Clean Water Act 404 permitting process to avoid significant impacts on wetlands. • Stormwater systems will be designed to treat and attenuate volumes associated with the affected floodplains. • SpaceX will develop site-specific spill prevention plans in compliance with DAF policy.
Hazardous Materials, Solid Waste, and Pollution Prevention (FEIS § *3.12.3*)	• SpaceX will coordinate with the Installation Restoration Program office to deconflict any Installation Restoration Program investigation areas with new infrastructure and construction will not interfere with ongoing soil and groundwater monitoring and treatment efforts. • Prior to initiation of construction activities, SpaceX will coordinate with SLD 45 so that activities are conducted in compliance with the Resource Conservation and Recovery Act (RCRA) permit and Land Use Control Implementation Plan (LUCIP) for SLC-37. • If any previously undocumented contamination is discovered during construction, including per- and polyfluoroalkyl substances (PFAS) contamination, work will cease and CCSFS environmental staff will be notified immediately.
	• During construction activities in the vicinity of known contaminated sites, training will be implemented to help workers identify contaminated media (soil and groundwater) for proper disposal or treatment. • SpaceX will develop a solid waste management plan, which will require construction contractors to recycle and/or reuse debris to the maximum extent practicable, thereby diverting the debris from landfills. • If an accidental spill or an anomaly were to occur, SpaceX will stop work, assemble an emergency response team responsible for responding to hazards, and notify CCSFS. • If fill dirt is required for the site, SpaceX will test the dirt to ensure that all fill dirt brought on site would be in accordance with any applicable DOD, federal, and state screening levels. • SpaceX will coordinate with SLD 45 on incorporation of proper engineering and management controls to ensure that operations comply with the Resource Conservation and Recovery Act permit and Land Use Control Implementation Plan, and site conditions will continue to be monitored in accordance with SLD 45-approved monitoring plan(s).
Land Use (FEIS § *3.13.3*)	• CCSFS will coordinate with Merritt Island National Wildlife Refuge and Canaveral National Seashore (USFWS and the National Park Service, respectively) regarding scheduled launches and landing operations and potential restrictions. • Use of the new StarGate Web system is expected to reduce scheduling conflicts, minimize impacts on Range Management, and promote access to the Eastern Range for all users.