

**UNITED STATES SPACE FORCE**  
**FINDING OF NO SIGNIFICANT IMPACT**

**Falcon 9 Launch Cadence Increase at Vandenberg Space Force Base, California**

**CEQ Unique Identification Number: EAXX-007-57-USF-1724161195**

Pursuant to provisions of the National Environmental Policy Act (NEPA), Title 42 United States Code Section 4321 et seq., implemented by Council on Environmental Quality (CEQ) regulations at Title 40, Code of Federal Regulations (CFR) Parts 1500–1508, and 32 CFR Part 989, Environmental Impact Analysis Process, the Department of the Air Force (DAF), as the Lead Agency, prepared the attached Final Environmental Assessment (EA) to address the potential environmental impacts on the human environment associated with proposed Falcon 9 Launch Cadence Increase at Vandenberg Space Force Base (VSFB). The current launch capacity is insufficient to meet critical DOD and commercial launch missions. The EA supports the proposal to provide greater mission capability to the Department of Defense (DOD), National Aeronautics and Space Administration, and commercial customers by increasing Falcon 9’s flight opportunities in furtherance of U.S. policy, as discussed in the EA, page 1-2, § 1.2.

This FONSI incorporates by reference and attaches hereto the *Final Environmental Assessment (EA), Falcon 9 Cadence Increase at Vandenberg Space Force Base (VSFB), California*. The EA considered the potential environmental impacts of Alternative 1 (Proposed Action) Increase Launch Cadence (EA, page 2-1, § 2.1), Alternative 2 (a modified version of Alternative 1), and the No Action Alternative, and identified mitigations to be implemented prior to taking an impact-inducing action (EA Appendix L).

This FONSI also serves as the Alternative 2 RECORD OF CONFORMITY ANALYSIS (ROCA) for verifying General Conformity Rule (GCR; 40 CFR Part 51, Subpart W, as adopted by reference in South Coast Air Quality Management District (SCAQMD) Rule 1901, September 1994) compliance.

**DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES**

**Alternative 1 (Proposed Action), Increase Launch Cadence**

The Proposed Action (Alternative 1) (EA, page 2-1, § 2.1) is to increase the Falcon 9 annual launch cadence from 36 to 50 launches per year at Space Launch Complex 4 (SLC-4) on VSFB, increase Falcon 9 first stage and fairing recovery activities, and expand the recovery area in the Pacific Ocean. Up to 12 boosters per year would continue to land at SLC-4.

The Proposed Action, Alternative 1, would result in Nitrogen Oxides (NO<sub>x</sub>, an ozone precursor) emissions during project transport activities, site preparation, mobilization activities, and static fire and launch events. Generally, the emissions are relatively insignificant outside the Los Angeles-South Coast Air Basin. The Proposed Action is the only alternative expected to result in an exceedance of Ozone (NO<sub>x</sub> as a precursor) General Conformity Rule (GCR) *de minimis* threshold value. Therefore, the DAF cannot determine if the Proposed Action will have less than significant impacts on air quality until it completes the GCR Determination. A GCR Determination must be completed before Alternative 1 could proceed. DAF is conducting a GCR Determination.

## **Alternative 2 (Modified Proposed Action) (EA, page 2-6, § 2.4), Increase Launch Cadence While Maintaining Operations In Compliance With GCR Requirements**

Alternative 2 is an alternative that modifies the Proposed Action's (Alternative 1) operations within the SCAQMD to keep the annual net change in emissions below the 10 tons per year (tpy) Clean Air Act (CAA) GCR *de minimis* value for NO<sub>x</sub>. This would be accomplished through fewer operating hours and/or different boat routes to reduce emissions within nonattainment areas. DAF determined that emissions of NO<sub>x</sub> from operations at the intensity of the Proposed Action would exceed the 10 tpy allowable limit (*de minimis* value) within the Los Angeles-South Coast Air Basin Ozone Extreme Nonattainment Area which falls within SCAQMD. A nonattainment area is a geographical area that exceeds one or more National Ambient Air Quality Standards (NAAQS). To remedy this situation, activities will be restricted within the Los Angeles-South Coast Air Basin Ozone Extreme Nonattainment Area to remain at *de minimis* levels (i.e., less than 10 tpy). DAF calculated the reasonably foreseeable scenario of restricted operations to demonstrate NO<sub>x</sub> emissions associated with this action's operations can be maintained below 10 tpy *de minimis* value for the near future. To ensure activities are maintained below the *de minimis* value, SpaceX will calculate and keep a weekly running total of NO<sub>x</sub> emissions associated with operations and will halt all operations within SCAQMD prior to exceeding 10 tpy of NO<sub>x</sub> emissions annually.

As a result of the modified operations, Alternative 2 poses an insignificant impact on air quality and therefore GCR is not applicable.

### **No Action Alternative**

The No Action alternative provides baseline conditions for each resource area for comparing the potential environmental effects of the action alternatives. As analyzed the No Action Alternative (EA, page 2-7, § 2.4.2) would not increase the annual cadence for Falcon 9 operations from SLC-4 on VSBF, increase Falcon 9 first stage and fairing recovery activities, or expand the recovery area and rocket launch mission would continue at current levels.

### **MITIGATION**

The EA considered the environmental consequences of the proposed action (EA page 3-1, Chapter 3) and results of required consultations with the relevant agencies (EA page 3-25, § 3.3.1 and Appendices A through D and L). The consultations resulted in prescribed mitigation to be applied to support making a finding of no significant impact. In addition, mitigation is required for emissions within the Los Angeles-South Coast Air Basin Extreme Ozone Nonattainment Area under the authority of the SCAQMD. For identified impacts, the following measures are being taken. SLD 30 is responsible for:

- Ensuring compliance with the actions required by USFWS's Biological Opinion to monitor and mitigate potential adverse effects to listed species (EA, page 3-29, § 3.3.2 and Appendix A).
- Ensuring compliance with the actions required by NMFS Letter of Authorization (EA page 3-40, § 3.4.2 and Appendix B).
- Carrying out the actions agreed to during negotiations with the California Coastal Commission during Coastal Zone Management Act (CZMA) federal consistency proceedings (EA page 3-51, § 3.7.2 and Appendix D).

- Limit operation activities that generate NOx emissions within the Los Angeles-South Coast Air Basin Extreme Ozone Nonattainment Area to less than 10 tpy (GCR de minimis level for NOx) pending the completion of the GCR Determination required by 42 USC 7506(c) and SCAQMD Rule 1901 (EA page 3-7, § 3.1.2.1.3). In part, SLD 30 will receive a weekly running tally of net change in NOx emissions within the Los Angeles-South Coast Air Basin Extreme Ozone Nonattainment Area associated with harbor operations of this Action to demonstrate compliance with the GCR de minimis level.

To track mitigations, SLD-30 will develop a Mitigation Plan that identifies oversight and execution of specific mitigations. SLD-30 will not implement any impact-inducing action before the applicable mitigation measure described in the EA and FONSI are put in place.

### **FINDING OF NO SIGNIFICANT IMPACT**

Based on my review of the facts and analyses contained in the attached EA, I conclude that implementing the Modified Proposed Action (Alternative 2) and the associated mitigations as described in the EA, its supporting Appendices, and as will be defined more specifically in the Mitigation Plan, will not have a significant impact on the quality of the human environment. Additionally, Alternative 2 will result in *de minimis* emissions per the GCR (40 CFR 93.153(c)(1)). Therefore, further analysis with a GCR Determination is not required and this FONSI is appropriate, and no Environmental Impact Statement is required.

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ROBERT E. MORIARTY, P.E., SES  
Deputy Assistant Secretary of the Air Force (Installations)

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Date

Attachment:

Final Environmental Assessment Falcon 9 Cadence Increase at Vandenberg Space Force Base, California