

1 **DRAFT FINDING OF NO SIGNIFICANT IMPACT (FONSI)**
2 **AND FINDING OF NO PRACTICABLE ALTERNATIVE (FONPA)**

3 **Environmental Assessment (EA) for SpaceX Falcon 9 Operations at Space Launch**
4 **Complex 40, Cape Canaveral Space Force Station**

5 **Unique Identifier: EAXX-021-12-000-1737545438**

6
7 The DAF is issuing this FONSI per its regulations that implement the National Environmental Policy Act as
8 amended by the Fiscal Responsibility Act of 2023 at 32 *Code of Federal Regulations (C.F.R.)* § 989.15,
9 “Finding of no significant impact.” The DAF is aware that the President of the United States has issued
10 Executive Order (E.O.) 14154, *Unleashing American Energy*, which revoked E.O. 11991, which amended
11 E.O. 11514. CEQ has provided notice that it intends to rescind the CEQ NEPA regulations.

12 Pursuant to the provisions of the National Environmental Policy Act (NEPA) of 1969, 40 Code of Federal
13 Regulations (CFR) Parts 1500-1508, and *Environmental Impact Analysis Process* (32 CFR Part 989), the U.S.
14 Air Force (USAF) adopts the EA prepared by Space Exploration Technologies, Inc. (SpaceX) for the Federal
15 Aviation Administration (FAA). The DAF is a cooperating agency on the attached EA to address the
16 potential environmental impacts on the human environment, including the natural environment,
17 associated with proposed Falcon 9 operations and construction of a landing zone at Space Launch
18 Complex-40 (SLC-40) at Cape Canaveral Space Force Station (CCSFS).

19 This DRAFT Finding of No Significant Impact (FONSI) applies to all proposed actions analyzed in the EA and
20 hereby incorporates by reference, and attaches hereto, the *Draft Environmental Assessment, SpaceX*
21 *Falcon 9 Operations at Space Launch Complex 40, Cape Canaveral Space Force Station*. The EA considered
22 all potential environmental impacts of the Proposed Action and the No Action Alternative, and identified
23 management protective measures to avoid, prevent, or minimize environmental impacts.

24 **PURPOSE AND NEED**

25 The purpose of the Proposed Action is to provide greater mission capability to the U.S. Department of
26 Defense (DOD), NASA, and commercial customers by increasing Falcon 9’s flight opportunities. This
27 increase in flight opportunities and construction and operation of a new landing zone would support
28 future U.S. Government and commercial missions, which require or would benefit from a Falcon 9 vehicle.
29 A new landing zone is proposed to retain the ability to land first-stage boosters at CCSFS. SpaceX utilizes
30 land-based landing zones in addition to marine drone ship landings downrange to support the goal of first-
31 stage booster reusability.

32 The Proposed Action is needed to meet current and anticipated near-term future U.S. Government launch
33 requirements for national security, space exploration, science, and the Assured Access to Space process
34 of the National Security Space Launch program. The proposed increased launch cadence at SLC-40 is
35 needed so that SpaceX can continue to implement U.S. Government missions while simultaneously
36 meeting its increasing commercial launch demands. The Proposed Action is needed to fulfill (in part) 10
37 U.S.C. 2276(a), “Commercial space launch cooperation,” authorizing the Secretary of Defense to:

- 1 • Maximize the use of the capacity of the space transportation infrastructure of the DOD by the
2 private sector in the U.S.;
- 3 • Maximize the effectiveness and efficiency of the space transportation infrastructure of the DOD;
- 4 • Reduce the cost of services provided by the DOD related to space transportation infrastructure
5 and launch support facilities and space recovery support facilities;
- 6 • Encourage commercial space activities by enabling investment by covered entities in the space
7 transportation infrastructure of the DOD; and
- 8 • Foster cooperation between DOD and covered entities.

9
10 The new landing zone is needed because Space Launch Delta 45 (SLD 45) does not intend on renewing
11 SpaceX’s license at Landing Zone 1 and Landing Zone 2 after expiration in July 2025. SLD 45 has
12 implemented a policy that phases out dedicated LZs to maximize opportunities for the number of
13 commercial launch service providers, maximize the launch capacity of the Eastern Range, and minimize
14 impacts that commercial launch service providers create for other users or government programs during
15 operations. SLD 45 policy now requires commercial launch service providers to conduct landing operations
16 at their existing launch sites. Landing boosters at the launch site allows reusable vehicle refurbishment to
17 begin earlier, enabling an increased launch cadence as transit time from the landing site to the
18 refurbishment facility is reduced compared to landing downrange. Additionally, landing at the launch site
19 removes potential weather issues downrange that could delay a launch and reduces flight hardware
20 exposure to corrosive environments.

21 Public interests largely intersect with the government interests identified, including greater mission
22 capability for space exploration, and advancing reliable and affordable access to space which in turn
23 advances the scientific and national security benefits of the U.S. space program as a whole.

24 **DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES**

25 **Proposed Action**

26 The Proposed Action is to increase the Falcon 9 annual launch cadence at SLC-40 from 50 to 120 launches
27 per year at SLC-40 on CCSFS, increase Falcon 9 first stage and fairing recovery activities, and construction
28 and operate a landing zone at SLC-40. Up to 34 booster landings annually would relocate from Landing
29 Zone 1/Landing Zone 2 (also known as SLC-13) to the new landing zone at SLC-40.

30 **No Action Alternative**

31 Under the No Action Alternative, SpaceX would not increase the annual cadence for Falcon 9 operations
32 from CCSFS or develop a landing zone at SLC-40. SpaceX would continue to land boosters at Landing Zone
33 1 and Landing Zone 2 until its license expires; however, SLD 45 has advised of their intention to not renew
34 the license. SpaceX would lose the ability to land boosters at CCSFS. This would increase the costs and
35 time required for each launch. SpaceX would not meet the DOD requirements for Assured Access to Space
36 nor fully meet the National Space Transportation Policy goals of providing low-cost reliable access to and
37 from space, or the more short-term need to meet the increase in current and future manifest demands.
38 Therefore, the No Action Alternative does not meet the purpose and need.

1 **Alternatives Eliminated from Further Consideration**

2 NEPA requires agencies to identify “a reasonable range of alternatives to the proposed agency
3 action...that are technically and economically feasible, and meet the purpose and need of the proposal.”
4 42 U.S.C. § 4332(C)(iii) (2024). The FAA evaluated alternative launch and landing sites for reasonableness.
5 Non-SpaceX sites at CCSFS and Kennedy Space Center would not be able to readily provide infrastructure
6 requirements without substantial construction activities, which would result in additional impacts and
7 would not support the future launch schedule requirements. Launch Complex 39A at Kennedy Space
8 Center does not have the available capacity to support the Proposed Action and Vandenberg Space Force
9 Base supports a different range of trajectories and therefore were not considered. Alternative landing
10 zone locations were evaluated at Launch Complex 39A and Launch Complex 48 but dismissed from further
11 consideration as they are not within the vicinity of SLC-40 thus would not meet SLD 45 policy. Alternative
12 landing locations in the vicinity or SLC-40 were considered but not carried forward due to additional
13 environmental impacts and flight safety concerns. Therefore, only the Proposed Action and No Action
14 Alternative were carried forward for further evaluation.

15 **ENVIRONMENTAL CONSEQUENCES**

16 The attached EA analyzed the potential environmental consequences of activities associated with the
17 Proposed Action and the No Action Alternative. Based on the analysis, neither the Proposed Action nor
18 the No Action Alternative would result in individual or cumulatively significant impacts to any resources.

19 Additionally, potential minor adverse impacts that were found to be not significant were noted for the
20 Proposed Action to the following resources: air quality, climate, sound (airborne), cultural resources,
21 water resources, biological resources, coastal resources, land use, and socioeconomics.

22 *The No Action Alternative would result in impacts less than the Proposed Action; however, it would not*
23 *meet the Action’s purpose and need.*

24 **MITIGATION**

25 Consultations with the relevant agencies will result in prescribed mitigation and/or minimization
26 measures to ensure no significant impacts occur because of the Action. Those measures are/will be
27 provided in appended correspondence with the U.S. Fish and Wildlife Service (USFWS) and National
28 Marine Fisheries Service (NMFS). For identified impacts, the following measures are being taken:

- 29 • SLD 45 and SpaceX will comply with their respective requirements that will be outlined in the
30 USFWS Biological Opinion.
 - 31 • SpaceX will comply with the requirements of the NMFS Letter of Concurrence (see Appendix D)
- 32

33 **PUBLIC REVIEW AND COMMENT**

34 A Notice of Availability (NOA) was placed in several local newspapers and the Draft EA and FONSI was
35 made available for public review and comment for 30 days. The documents were made available on the
36 FAA website, www.faa.gov, and the Patrick Space Force Base Environmental Website, [Environmental](#)
37 [Information](#). In accordance with 32 CFR 989.9, the DAF released the Draft FONSI for specific actions

1 affecting DAF property (described above). The Draft EA was also provided to the State Clearinghouse. A
2 virtual public meeting will be held April 8, 2025.

3 **FINDING OF NO SIGNIFICANT IMPACT**

4 Based on my review of the facts and analyses contained in the attached EA, conducted per the NEPA, 42
5 U.S. Code 4321 et seq., and 32 CFR 989, I conclude that implementing the Proposed Action and the
6 associate mitigation measures will not have a significant effect on the quality of the human environment.
7 Therefore, an Environmental Impact Statement is not required and this FONSI is appropriate. I decided
8 this after considering all submitted information, including reviewing public and agency comments, and
9 considering a range of reasonable alternatives. This analysis fulfills the requirements of NEPA and the
10 signing of this Finding of No Significant Impact completes the Environmental Impact Analysis Process.

11 **FINDING OF NO PRACTICABLE ALTERNATIVE**

12 Pursuant to Executive Orders 11988 11990, and 13690, and considering all supporting information, I find
13 there is no practicable alternative to the Proposed Action, which will impact floodplains. Approximately
14 0.25 acres of the proposed improvements would be located within the 500-year floodplain. The location
15 of the existing facilities and utilities, limited developable area outside the floodplain, and the requirement
16 to avoid listed species habitat to the greatest extent possible precludes placing the entirety of these
17 improvements outside the floodplain. This finding fulfills both the requirements of the referenced
18 Executive Orders and the EIAP regulation, 32 CFC 989.14(g) for a FONPA.

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21 _____ Date _____
22 MARCIA L. QUIGLEY, Col, USAF
23 Director, Space Force Mission Sustainment
24 (Engineering, Logistics, & Force Protection)

25 Attachment: Draft Environmental Assessment SpaceX Falcon 9 Operations at Space Launch Complex
26 40, Cape Canaveral Space Force Station