

DEPARTMENT OF TRANSPORTATION
Federal Aviation Administration
Office of Commercial Space Transportation
Finding of No Significant Impact and Record of Decision
for
Relativity Terran R Launch Program, Cape Canaveral Space Force
Station, Florida

Summary

The Federal Aviation Administration (FAA) is issuing this Finding of No Significant Impact (FONSI) and Record of Decision (ROD) to support the issuance of a vehicle operator license to Relativity Space, to conduct Terran R launch operations at Space Launch Complex 16 (SLC-16) at Cape Canaveral Space Force Station (CCSFS), Florida.

The United States Space Force (USSF) was the lead agency, and the FAA was a cooperating agency in the preparation of the 2024 *Final Supplemental Environmental Assessment (SEA) for the Terran R Space Launch Program, Cape Canaveral Space Force Station (CCSFS)*. The Proposed Action modifies launch and testing capabilities within Relativity's existing property boundary following the retirement of the Terran 1 Program. Based on the analysis of impacts and findings in the SEA, the USSF issued a FONSI and Finding of No Practicable Alternative (FONPA) on January 30, 2024.

The SEA was prepared in accordance with the National Environmental Policy Act of 1969, as amended (NEPA; 42 United States Code [U.S.C.] § 4321 et seq.); Council on Environmental Quality (CEQ) NEPA-implementing regulations (40 Code of Federal Regulations [CFR] parts 1500 to 1508); the Department of

the Air Force's (DAF's) Environmental Impact Analysis Process (EIAP) 32 CFR Part 989; and FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures*.^{1,2}

Relativity is required to obtain a license from FAA to conduct commercial launch operations at SLC-16 at CCSFS. Based on its independent review and consideration of the SEA, the FAA issues this FONSI and Record of Decision (ROD) concurring with and formally adopts the analysis of impacts and findings in the SEA.

The SEA supports FAA's issuance of a vehicle operator license allowing Relativity to conduct Terran R operations at CCSFS SLC-16 and associated airspace closures. The SEA also supports potential renewals and modifications to Relativity's vehicle operator license within the scope of operations analyzed in the SEA. If Relativity submits a license application to the FAA proposing operational changes that fall outside of the scope of the SEA, additional environmental review would be required prior to FAA issuing a license or modification for those activities.

After reviewing and analyzing the SEA, including all available data and information on existing conditions and potential impacts, FAA has determined that issuing a vehicle operator license to Relativity for the Terran R Space Launch Program at SLC-16 at CCSFS would not significantly impact the quality of the human environment within the meaning of NEPA. Therefore, the preparation of an Environmental Impact Statement (EIS) is not required, and FAA is independently issuing this FONSI/ROD. FAA has made

¹ On January 20, 2025, President Trump issued Executive Order (EO) Number (No.) 14154, *Unleashing American Energy*, which revoked EO 11991, *Relating to Protection and Enhancement of Environmental Quality* (May 24, 1977), and instructed the Chair of the Council on Environmental Quality (CEQ) to rescind its NEPA-implementing regulations. The CEQ published an interim final rule on February 25, 2025, announcing the removal of its NEPA-implementing regulations effective April 11, 2025. The CEQ published a final rule on January 8, 2026. On July 3, 2025, FAA published a Notice in the Federal Register rescinding FAA Order 1050.1F and issuing FAA Order 1050.1G to align with amendments to NEPA and to reflect CEQ's February 25, 2025 interim final rule (see n. 2). Because the preparation of the SEA was already complete when FAA revised FAA Order 1050.1, and because this revision does not change the analysis of environmental effects for this proposed action, the SEA and this corresponding FONSI/ROD continues to reference FAA Order 1050.1F.

² FAA Order 1050.1F requires agency NEPA documents to contain an analysis of the Proposed Action's impacts as they relate to Environmental Justice, as well as the Proposed Action's overall "Cumulative Impacts." With respect to Environmental Justice, it is no longer the policy of the federal government to conduct an environmental justice analysis and it is no longer a legal requirement to do so, pursuant to Executive Order 14173, *Ending Illegal Discrimination and Restoring Merit-Based Opportunity*. With respect to "Cumulative Impacts," the underlying basis for its inclusion in FAA Order 1050.1F was its inclusion in the CEQ's now-rescinded NEPA-implementing regulations. As explained by CEQ in its February 19, 2025 memorandum, *Implementation of the National Environmental Policy Act*, NEPA, as amended, does not employ the term "cumulative effects" or "cumulative impacts." CEQ instead directs agencies to consider 'reasonably foreseeable effects', regardless of whether those effects might be characterized as 'cumulative,' consistent with NEPA. 42 U.S.C. § 4332(2)(C)(i). See also *Seven Cnty. Infrastructure Coal. v. Eagle Cnty., Colo.*, 605 U.S. ___, 145 S. Ct. 1497 (2025). As a result of these changes, FAA's determinations do not rely upon an analysis of either environmental justice or cumulative impacts..

this determination in accordance with applicable environmental laws and FAA regulations. The SEA is incorporated by reference into this FONSI/ROD.

For any questions or to request a copy of the SEA, contact the Environmental Program by mail or email.

Environmental Program
Operational Support Branch ASA 140
Office of Commercial Space Transportation
Federal Aviation Administration
800 Independence Ave., SW, Suite 325
Washington DC 20591
9-AST-Environmental@faa.gov

Purpose and Need

The purpose of the Proposed Action is to modify launch capabilities within Relativity's existing property boundary to support to the Terran R Space Launch Program following the retirement of the Terran 1 Program. The Proposed Action is needed to provide a more cost-competitive commercial space launch vehicle, increase U.S. space launch capability, and ensure the United States remains the leader in space launch technology by offering a larger sized launch vehicle and payload capabilities than the previous Terran 1 Program capabilities.

Proposed Action

Relativity's Proposed Action is to implement the proposed Terran R Program to supersede the Terran 1 Program, which was retired in May of 2023. The first Terran R launch is scheduled for 2026, with an maximum launch cadence of 24 launches per year. The Terran R vehicle would deliver payloads of up to 33,500 kilograms (kg) to low Earth orbit or 23,500 kg under a reusable configuration, compared to Terran 1's payload capacity of 1,250 kg. The Terran R would launch azimuths ranging from 41° to 105°. During early Terran R missions, Stage 1 of the rocket may be expended into the Atlantic Ocean. Nominal missions for the Terran R program would include Stage 1 barge landings in the Atlantic Ocean. Stage 2 would be placed into a disposal orbit and would demise during eventual reentry; any debris that does not burn up during reentry would land in a broad ocean area.

Relativity would conduct all activities within the existing property boundary at SLC-16. Relativity has a real property agreement with USSF for the use of and modification of SLC-16. The Terran R Program requires new infrastructure to support the larger-sized launch vehicle and payload capacities. These improvements include a launch pad and flume, Horizontal Integration Facility, Environmental Control

System Facility, instrumentation bay, tech workshop, office, lightning protection towers, two flare stacks, vehicle lighting, liquefied natural gas, and liquified oxygen storage tanks, and roadway infrastructure. Construction activities associated with the proposed development are currently ongoing at the project site. FAA has no Federal action associated with the construction activities discussed in the EA. Therefore, this FONSI/ROD addresses only those aspects of the activities related to the issuance, modification, renewal of a license, and airspace closures during launch operations.

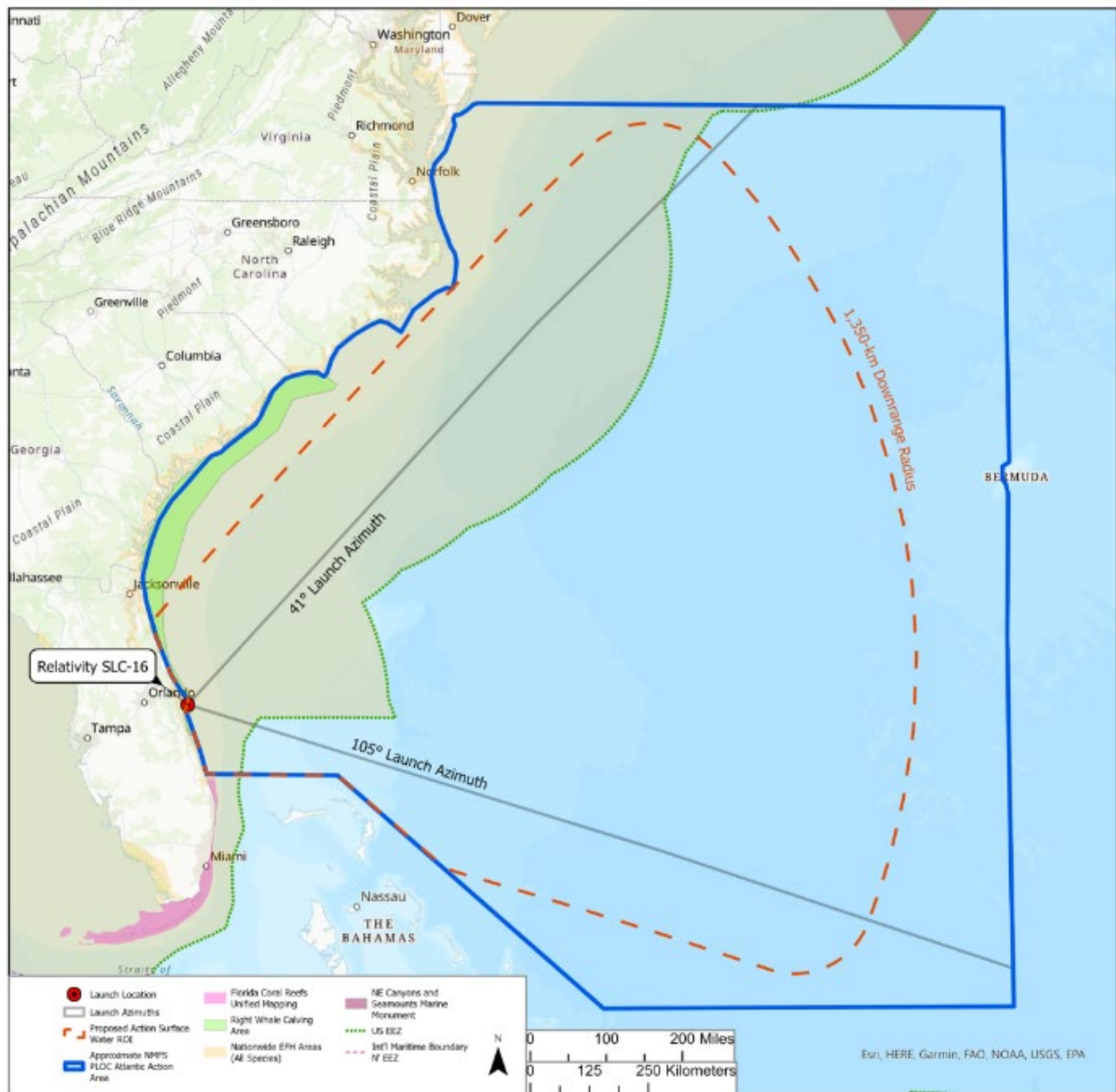
Airspace Coordination/Closures

All launch and reentry operations would comply with necessary notification requirements, including issuance of Notices to Airmen (NOTAMs), as defined in agreements required for a vehicle operator license issued by FAA.

Subsequent to the completion of the EA, FAA used representative recent Aircraft Hazard Areas (AHAs) to complete a National Airspace System (NAS) assessment of the airspace closures for this EA. Relativity launches and first-stage reentries³ would impact air routes extending eastward from the launch site over portions of the Atlantic Ocean and New York Center Oceanic Airspace. AHAs may necessitate the closure of up to two dozen air traffic routes around the launch site for Terran R launches, and further downrange where the first stage booster conducts an oceanic disposal. The southernmost launch trajectories could impact the airspace of the Bahamas. As necessary, the Bahamas would be expected to close its airspace up to 6,000 feet (1,829 meters), and FAA would close the airspace above that level. See Figure 1 for a depiction of the range of launch trajectories and associated AHAs.

³ First stage booster reentries are included in the launch AHAs and are assumed to occur within approximately 10 minutes of a launch.

Figure 1. Launch Range



FAA conducted a NAS assessment of the notional launch Aircraft Hazard Areas (AHA) for the upcoming Relativity's Terran R Vehicle Operations, utilizing aircraft data from 2025 for analysis. Based on the notional AHAs, each launch could affect a minimum of 11 commercial aircraft per hour, during the lowest period of midnight hours, or up to a maximum of 383 commercial aircraft per hour, during peak daily travel periods. Domestic flights that normally take over water coastal routes are expected to be rerouted via inland routes, which would cause an increase in congestion and flight travel time.

Integrating Relativity's Terran R vehicle operation from SLC-16 into the NAS may require FAA to conduct ground stops commensurate with the timing of the AHA, miles in trail (distance between aircraft) for spacing and volume control as well as rerouting of aircraft around the AHA. Due to the length of the AHAs, certain flights, especially international, may elect to delay the departure time due to the inability to accept a reroute caused by fuel constraints or the flight time of the reroute. While the notional AHA does not physically overlay Florida airports, it may indirectly impact arrivals and departures that conflict with the hazard area. These conflicts could necessitate ground stops, miles-in-trail restrictions, or reroutes.

While General Aviation operations are similarly affected, they often have more planning flexibility than commercial flights. The absence of rigid connecting schedules may allow General Aviation pilots to more easily reroute or reschedule around active launch times.

Federal Action

FAA's Federal Action is to issue a vehicle operator license to Relativity to conduct Terran R launches at CCSFS SLC-16, along with potential license renewals and modifications within the scope of operations analyzed in the SEA. FAA is also responsible for creating airspace closure areas consistent with the statutory mandate in 49 U.S.C. § 40103 to ensure the safe and efficient use of the National Airspace System. FAA carries out this mandate in accordance with FAA Order 7400.2R, *Procedures for Handling Airspace Matters*, to ensure public safety. FAA has no Federal action associated with the construction activities discussed in the SEA. Therefore, this FONSI/ROD addresses only those aspects of the activities considered in the SEA for which FAA has regulatory authority.

Alternatives

Alternatives analyzed in the SEA include (1) the Proposed Action and (2) the No Action Alternative. The No Action Alternative provides the basis for comparing the environmental consequences of the Proposed Action. Under the No Action Alternative, FAA would not issue a license to Relativity for Terran R launches (or modify Relativity's existing Terran 1 license to include Terran R launches), no launch services would be provided by Relativity at SLC-16, and no launch site construction would occur. The No Action Alternative would not allow the DAF to capitalize on Relativity's technology and capabilities to support the purposes of the National Space Policy by actively promoting the purchase and use of U.S. commercial space goods and services, nor would it reduce space transportation costs.

Environmental Impacts

The following presents a brief summary of the potential environmental consequences described in the SEA for FAA's Federal action. This FONSI/ROD incorporates the SEA by reference and is based on the potential impacts discussed therein. FAA has determined the analysis of impacts presented in the SEA represents the best available information regarding the potential impacts associated with FAA's regulatory responsibilities as described in this FONSI/ROD. The potential environmental impacts of the Proposed Action and No Action Alternative were evaluated in the SEA for each environmental impact category identified in FAA Order 1050.1F. Chapter 3 of the SEA describes the affected environment and regulatory setting and identifies the environmental impact categories that are not analyzed in detail: farmlands, natural resources and energy supply, children's environmental health and safety risks, and Wild and Scenic Rivers⁴. Chapter 3 of the SEA also provides evaluations of the potential environmental consequences of the Proposed Action for each of the environmental impact categories analyzed in detail and documents the finding that no significant environmental impacts would result from the Proposed Action.

A summary of the documented findings for each impact category, including requisite findings with respect to relevant special purpose laws, regulations, and executive orders, is presented below.

- **Air Quality**, SEA Section 3.1.

FAA Order 1050.1F, Exhibit 4-1, provides FAA's significance threshold for air quality: "[t]he action would cause pollutant concentrations to exceed one or more of the National Ambient Air Quality Standards (NAAQS), as established by the EPA under the Clean Air Act (CAA), for any of the time periods analyzed, or to increase the frequency or severity of any such existing violations."

The Proposed Action would occur within Brevard County, Florida, which is in attainment for all NAAQS. Air emissions from the Proposed Action include emissions associated with ground support operations and launch operations. Emissions from launch and landing operations would be similar in composition to the Terran 1 Program, but at a larger scale. Ground support operations are not expected to significantly change regional (Brevard County) or local (CCSFS) air pollutant emissions and no NAAQS exceedances are expected. Therefore, the Proposed Action would not have significant impacts to air quality within CCSFS and Brevard County.

⁴ Section E.2.2.1, *Surface Water (Inland)* states that this environmental impact category is dismissed from detailed analysis in the SEA, as there are no rivers protected under the Wild and Scenic Rivers Act located on or near CCSFS.

- **Water Resources**, SEA Section 3.2.

FAA Order 1050.1F, Exhibit 4-1, provides FAA's significance threshold for water resources (including wetlands, floodplains, surface waters, groundwater, and Wild and Scenic Rivers):

For wetlands, impacts would be significant if "[t]he action would adversely affect a wetland's function to protect the quality or quantity of municipal water supplies, including surface waters and sole source and other aquifers; substantially alter the hydrology needed to sustain the affected wetland system's values and functions or those of a wetland to which it is connected; substantially reduce the affected wetland's ability to retain floodwaters or storm runoff, thereby threatening public health, safety or welfare (the term welfare includes cultural, recreational, and scientific resources or property important to the public); adversely affect the maintenance of natural systems supporting wildlife and fish habitat or economically important timber, food, or fiber resources of the affected or surrounding wetlands; promote development of secondary activities or services that would cause the circumstances listed above to occur; or be inconsistent with applicable state wetland strategies."

For floodplains, "[t]he action would cause notable adverse impacts on natural and beneficial floodplain values. Natural and beneficial floodplain values are defined in Paragraph 4.k of DOT Order 5650.2, Floodplain Management and Protection."

For surface waters, "[t]he action would exceed water quality standards established by Federal, state, local, and tribal regulatory agencies; or contaminate public drinking water supply such that public health may be adversely affected."

For groundwater, "[t]he action would exceed groundwater quality standards established by Federal, state, local, and tribal regulatory agencies; or contaminate an aquifer used for public water supply such that public health may be adversely affected."

Floodplains and Wetlands

No impacts to floodplains and wetlands are expected during ground support operations and maintenance during the Terran R Program. Launch and landing operations have the potential to affect floodplains and wetlands through the exhaust plume, evaporation, and subsequent condensation of deluge water. However, the exhaust cloud would consist primarily of steam with no quantifiable amounts of hazardous constituents. The volume of water condensing from the exhaust cloud is expected to be minimal. Impacts would be minimized with the implementation of Florida

Department of Environmental Protection (FDEP) Industrial Wastewater Permitting (as deemed applicable by FDEP). As a result, no significant impacts to floodplains or wetlands are anticipated due to launch and landing operations.

Surface Water

Relativity would implement a Spill Prevention, Control, and Countermeasures (SPCC) Plan and proper handling of hazardous materials such that ground support operations would have no significant impacts to surface waters.

No potable water service is available within or immediately adjacent to SLC-16, nor does CCSFS have immediate plans to provide potable water service to SLC-16. Relativity proposes to use the existing fire main service for deluge/sound suppression water and fire suppression as needed. Deluge water associated with the Terran R Program would be handled in accordance with FDEP Industrial Wastewater Permit requirements. Since the SEA, Relativity has slightly changed their proposed wastewater management plan in their FDEP Industrial Wastewater Permit application: instead of using a containment and disposal system identical to that use for Terran 1 operations, deluge water would be pumped to a percolation pond. Due to the use of deluge water, a concrete flume, and a diverter, significant impacts to surface waters due to dust or particulate matter are not expected.

Samples of the deluge water would be collected and analyzed, and the results would be reported to FDEP per the FDEP Industrial Wastewater Permit requirements. With the satisfaction of Industrial Wastewater Permitting exemption approvals or completion of Industrial Wastewater Permitting through the FDEP, wastewater associated with Terran R operations would have no significant impacts at SLC-16.

Recovery vessel operations could potentially release small amounts of oil and gas into ocean waters. However, vessel operations would be conducted in accordance with the International Convention for Prevention of Pollution from Ships, prohibiting certain discharges from vessels. Relativity may require expending Terran R in the ocean, but propellants or other substances that could dissolve into the water column after the vehicle sinks to the ocean floor would be minimal and would not result in detectable changes to water quality. Most Terran R debris would sink to the ocean floor. Therefore, no significant impacts on ocean surface waters would occur from the launch and landing operations.

Groundwater

The Proposed Action does not use groundwater for launch or landing operations. No drilling, excavations, or other potential groundwater disturbances would take place during ground support operations and maintenance. Collection of all deluge water would prevent spills that may reach groundwater.

In conclusion, the Proposed Action is not expected to have a significant impact on water resources.

- **Historical, Architectural, Archeological, and Cultural Resources, SEA Section 3.4.**

FAA has not established a significance threshold for historical, architectural, archeological, and cultural resources. FAA Order 1050.1F, Exhibit 4-1, instead provides the following factor to consider: “[t]he action would result in a finding of Adverse Effect through the Section 106 process.”

A cultural resources assessment survey was conducted at SLC-16 in 2015, resulting in the determination by the Florida State Historic Preservation Officer (SHPO) that SLC-16 did not have sufficient integrity to possess historical significance and only Blockhouse Facility 13122 was eligible for listing on the National Register of Historic Places (NRHP).

Ground support operations and maintenance activities would not impact historical or cultural resources. Blockhouse Facility 13122 would be used to support Terran R operations at SLC-16 in the same manner as the Terran 1 Program (storage, instrument bays, local pad controls, and office space).

Structural damage to buildings due to launch noise is rare. Blockhouse Facility 13122 and abandoned structures at SLC-19 to the north are the only known historic structures identified that fall within the ≥ 130 -decibel (dB) noise contour. Although structures within the ≥ 130 dB contour have the potential to be damaged, Blockhouse Facility 13122 and the structures at SLC-19 were constructed to withstand concussive forces.

In 2023, Space Launch Delta (SLD) 45 initiated Section 106 consultation with the Florida SHPO to identify any impacts on historic properties from Terran R launch operations at SLC-16. A noise and vibration study was completed. SLD 45 determined that noise and vibration from the Proposed Action would be minor and no different from similar operations occurring at nearby active launch complexes. The Florida SHPO concurred with SLD 45’s determine of eligibility and finding of no adverse effect to cultural resources due to rocket engine noise or vibration are expected (see SEA Appendix H).

SLD 45 also initiated Section 106 and Government-to-Government consultation with three Federally recognized Tribes: the Seminole Nation of Oklahoma, the Miccosukee Tribe of Indians of Florida, and the Seminole Tribe of Florida. The Seminole Tribe of Florida Tribal Historic Preservation Office responded in 2023 that they had no objections or other comments.

In conclusion, the Proposed Action is not expected to have a significant impact on historical, architectural, archeological, and cultural resources.

- **Biological Resources**, SEA Section 3.5.

FAA Order 1050.1F, Exhibit 4-1, provides FAA's significance threshold for biological resources: "[t]he U.S. Fish and Wildlife Service or the National Marine Fisheries Service determines that the action would be likely to jeopardize the continued existence of a federally listed threatened or endangered species or would result in the destruction or adverse modification of federally designated critical habitat."

FAA has not established a significance threshold for non-listed species. Order 1050.1F, Exhibit 4-1 instead provides the following factors to consider: "[t]he action would have the potential for a long-term or permanent loss of unlisted plant or wildlife species, i.e., extirpation of the species from a large project area; adverse impacts to special status species or their habitats; substantial loss, reduction, degradation, disturbance, or fragmentation of native species' habitats or their populations; or adverse impacts on a species' reproductive success rates, non-natural mortality, or ability to sustain the minimum populations levels required for population maintenance."

Potential impacts to biological resources include impacts from ground support operations and launch and landing operations. Vibration and noise associated with rocket launches are not expected to significantly impact general wildlife. An anomaly on the launch pad would present potential impacts to biological resources from the possibility of extreme heat and fire, percussive effects of the explosion, and debris; this would be an off-nominal, low probability, and worst-case scenario.

SLD 45 conducted Endangered Species Act (ESA) Section 7 consultation with the U.S. Fish and Wildlife Service (USFWS) for the Terran R Program to assess the Proposed Action's potential impacts on federally listed species (see SEA Appendix G). The consultation concluded that the Proposed Action *may affect, but is not likely to adversely affect*, all the federally listed species within the action area, with the exception of the tricolored bat; the consultation concluded the action may

adversely affect the tricolored bat due to launch noise and habitat loss. The USFWS issued a Biological Opinion (BO) which concluded that the Proposed Action is not likely to jeopardize the continued existence of the tricolored bat. It is expected the species will continue to roost, forage, and breed at CCSSFS. No new state or federally listed threatened and endangered plant species have been documented in the construction area.

Since the preparation of the SEA, the black-capped petrel (*Pterodroma hasitata*) was listed as endangered under ESA (88 FR 89611). Black-capped petrels are pelagic seabirds that spend their life in flight over the open Atlantic Ocean. Known for their speedy flight, black-capped petrels are widely distributed and travel long distances to foraging areas in the western Atlantic and southern Caribbean basins and the central and northeastern Gulf of America. In 2025, SLD 45 re-initiated consultation with the USFWS to identify potential impacts of the Proposed Action on the black-capped petrel. The USFWS concurred with SLD 45's determination that the Proposed Action is not likely to adversely affect the black-capped petrel.

Launch and booster landing sonic booms as well as launch debris from expended boosters, payload fairings, launch abort tests, or any launch failure anomalies have the potential to affect marine species protected by the Marine Mammal Protection Act and ESA. Protected marine species are sparsely distributed across these ocean expanses, resulting in very low densities of species overall. The probability of a direct impact to a protected marine species is thus extremely unlikely. Relativity would also estimate the location of debris and make best efforts to perform debris recovery operations. In 2021, in response to FAA, USSF, and National Aeronautics and Space Administration (NASA) initiating consultation with the National Marine Fisheries Service (NMFS) to address potential effects of launch and reentry operations to ESA-listed marine species, NMFS issued a Programmatic Letter of Concurrence (PLOC), concurring with the action agencies' determination that launch and reentry operations would not adversely affected ESA-listed marine species (see SEA Appendix B). During the preparation of the 2024 SEA, the USSF consulted with NMFS to determine whether Relativity's Terran R Program is within the scope of the programmatic ESA consultation. NMFS determined that the Terran R Program is covered under the PLOC through 2026 (see SEA Appendix C).

Since preparation of the SEA, FAA reinitiated consultation with NMFS to expand the scope of the programmatic ESA consultation, including coverage of Stage 2 reentry and disposal in a broad ocean area (i.e., an area at least 200 nautical miles from land). FAA received an updated PLOC from NMFS

on May 4, 2026. FAA expects Relativity to comply with the Project Design Criteria (i.e., avoidance and minimization measures) identified in the PLOC.

Terran R launches would have some small impacts near the launch pad associated with fire and scorching of vegetation, similar to previous launch activities at CCAFS. Relativity would perform monitoring within the heat plume region of influence to better understand any potential impacts. Past vegetation scorching has not permanently affected the vegetation near other launch complexes, and this same impact is expected to apply to Terran R launches.

In conclusion, the Proposed Action is not expected to result in significant impacts to biological resources.

- **Land Use, SEA Section 3.6.**

FAA has not established a significance threshold or factors to consider for land use. FAA Order 1050.1F, Exhibit 4-1, explains, “[t]he determination that significant impacts exist in the Land Use impact category is normally dependent on the significance of other impacts.”

Terran R Program launch and landing operations are similar in scope to previous and current launch activities occurring at CCSFS. Therefore, the Proposed Action would not have significant impacts on land use.

- **Visual Effects, SEA Section 3.6.**

FAA has not established a significance threshold for visual effects. FAA Order 1050.1F, Exhibit 4-1, instead provides the following factors to consider: “[t]he degree to which the action would have the potential to create annoyance or interfere with normal activities from light emissions; affect the visual character of the area due to the light emissions, including the importance, uniqueness, and aesthetic value of the affected visual resources; affect the nature of the visual character of the area, including the importance, uniqueness, aesthetic value of the affected visual resources; contrast with the visual resources and/or visual character in the study area; and Block or obstruct the views of visual resources, including whether these resources would still be viewable from other locations.”

Ground support operations and maintenance would be consistent with the current visual character of CCSFS. Relativity’s facilities would not be visible by the public except potentially from the ocean or from the viewing structure built by the NASA Kennedy Space Center (KSC) Visitor Complex, specifically for tourists. Terran R Program launch and landing operations are similar in scope to previous and current launch activities occurring at CCSFS. Landing operations on an ocean-based

barge would be consistent with current booster landing operations within the Atlantic Ocean. Facilities associated with operations would be at heights similar to or lower than other active launch sites at CCSFS. A USFWS-approved Light Management Plan would be implemented to minimize impacts to nesting sea turtles on the nearby coastline. Therefore, the Proposed Action would not have significant visual effects.

- **Coastal Resources**, SEA Section 3.6.

FAA has not established a significance threshold for coastal resources. FAA Order 1050.1F, Exhibit 4-1, instead provides the following factors to consider: “[t]he action would have the potential to be inconsistent with the relevant state coastal zone management plan(s); impact a coastal barrier resources system unit (and the degree to which the resource would be impacted); pose an impact to coral reef ecosystems (and the degree to which the ecosystem would be affected); cause an unacceptable risk to human safety or property; or cause adverse impacts to the coastal environment that cannot be satisfactorily mitigated.”

Coordination with KSC, FAA, FDEP, and the Florida Coastal Management Program (FCMP) member agencies has been completed to ensure the Proposed Action is consistent with the FCMP. Therefore, the Proposed Action is not expected to have significant impacts on coastal resources.

- **Noise**, SEA Section 3.7.

FAA Order 1050.1F, Exhibit 4-1, provides FAA’s significance threshold for Noise and Noise-Compatible Land Use: “[t]he action would increase noise by DNL [Day-Night Average Sound Level] 1.5 dB or more for a noise sensitive area that is exposed to noise at or above the DNL 65 dB noise exposure level, or that will be exposed at or above the DNL 65 dB level due to a DNL 1.5 dB or greater increase, when compared to the no action alternative for the same timeframe. For example, an increase from DNL 65.5 dB to 67 dB is considered a significant impact, as is an increase from DNL 63.5 dB to 65 dB.”

FAA Order 1050.1F, Exhibit 4-1, also provides factors to consider: “[s]pecial consideration needs to be given to the evaluation of the significance of noise impacts on noise sensitive areas within Section 4(f) properties (including, but not limited to, noise sensitive areas within national parks; national wildlife and waterfowl refuges; and historic sites, including traditional cultural properties) where the land use compatibility guidelines in 14 CFR part 150 are not relevant to the value, significance, and enjoyment of the area in question. For example, the DNL 65 dB threshold does not

adequately address the impacts of noise on visitors to areas within a national park or national wildlife and waterfowl refuge where other noise is very low and a quiet setting is a generally recognized purpose and attribute.”

A single nominal Terran R launch event may generate noise levels at or above a maximum A-weighted sound level (LA_{max}) of 115 A-weighted decibels (dBA) within 0.83 miles of the launch pad. The land area within the 115 dBA contour is entirely within CCSFS. The DNL 65 and 60 dBA contours extend approximately 2.8 and 3.2 miles from the launch pad, respectively. This area does not encompass land outside the boundaries of CCSFS and KSC, therefore no residences would be impacted. When compared to existing noise levels, there would be no significant increase in noise levels due to Terran R launch operations. Noise modeling is included as Appendix D of the SEA.

The maximum modeled sonic boom peak overpressure for Terran R launches (ascent) is 11 psf. The sonic boom would begin 35 miles downrange from the launch pad and be entirely overwater, and the peak overpressures would only occur in small areas. The maximum modeled sonic boom overpressure for an ocean-based barge landing is 47 psf. Sonic booms for ocean-based barge landings would occur over the open ocean, more than 300 nautical miles downrange. Sonic boom modeling is included as Appendix D of the SEA.

Therefore, noise generated by ground support operations and launch and landing operations would not result in significant impacts to the environment.

- **Hazardous Materials, Solid Waste, and Pollution Prevention, SEA Section 3.11.**

FAA has not established a significance threshold for hazardous materials, solid waste, and pollution prevention. Instead, FAA Order 1050.1F, Exhibit 4-1, provides the following factors to consider:

“[t]he action would have the potential to:

- Violate applicable Federal, state, tribal, or local laws or regulations regarding hazardous materials and/or solid waste management;
- Involve a contaminated site (including but not limited to a site listed on the National Priorities List). Contaminated sites may encompass relatively large areas. However, not all of the grounds within the boundaries of a contaminated site are contaminated, which leaves space for siting a facility on non-contaminated land within the boundaries of a contaminated site. Further, construction that does not impact existing caps or ongoing monitoring within contaminated areas may not also result in releases of contaminated

material. An EIS may not be required in these instances. See the Desk Reference for mitigating impacts below significant levels (e.g., modifying an action to site it on non-contaminated grounds within a contaminated site). Therefore, if appropriately mitigated, actions within the boundaries of a contaminated site would not have significant impacts;

- Produce appreciably larger quantities or increased or more types of hazardous waste;
- Generate appreciably larger quantities or types of solid waste; use a different method of waste collection, treatment, storage, or disposal that, as an action, would adversely impact the site, surroundings, or affected community, and/or would exceed extant state, Tribal, or local capacity; or
- Adversely affect human health and the environment (through activities described in the action and their fidelity with federal, state, Tribal, or local laws or regulations regarding hazardous materials and/or solid waste management)."

Hazardous materials and waste associated with ground support activities would be delivered and properly stored to prevent leaks and spills that could potentially impact soil, groundwater, and surface waters. Hazardous materials and waste management would be conducted in accordance with applicable federal, state, and local regulations. Therefore, the Proposed Action is not expected to have significant impacts to the environment from solid waste or hazardous waste.

Launch and landing operations would require the use of hazardous materials including propellants, batteries, and compressed gases. The operation of the Terran R Program would result in additional propellant and fuels usage. However, pollution prevention BMPs would be implemented, and Relativity would prevent pollution via source reduction to the greatest extent feasible. Therefore, hazardous materials, solid waste, and pollution associated with the Proposed Action are not expected to have a significant impact on the environment.

- **Socioeconomics, SEA Section 3.12.**

FAA has not established a significance threshold for socioeconomics. FAA Order 1050.1F, Exhibit 4-1, instead provides the following factors to consider: "[t]he action would have the potential to: Induce substantial economic growth in an area, either directly or indirectly (e.g., through establishing projects in an undeveloped area); disrupt or divide the physical arrangement of an established community; cause extensive relocation when sufficient replacement housing is unavailable; cause extensive relocation of community businesses that would cause severe economic hardship for

affected communities; disrupt local traffic patterns and substantially reduce the levels of service of roads serving an airport and its surrounding communities; or produce a substantial change in the community tax base.”

For approximately one week during launch preparations, a maximum of 50 people, not including payload support and Launch Control Center personnel, would support the Terran R Program launches at SLC-16. The Terran R launch preparation timeframe and personnel requirements are anticipated to be far less than other launch operations currently at CCSFS. The Terran R Program would not impact population growth in the region, the local housing market, or the need for new social services or support facilities. Impacts from increased visitor or public observers are routinely managed and would cause no significant impacts on local traffic patterns.

This FONSI/ROD also considers the potential socioeconomic impacts of the airspace analysis described in the Proposed Action section, which was completed since the finalization of the SEA. Airspace impacts and ground stop delays cost airlines and passengers every year. Typical delay causes are weather, equipment issues, staffing, etc. However, estimating the economic impact that the proposed action may have on airspace and maritime activities is challenging and is unlikely to produce reasonable and defensible estimates. Any estimate of the economic impact to airspace and maritime users resulting from space launch or re-entry activity is sensitive to the timing of prelaunch notification as well as the timing and duration of the closure, which itself may be further impacted by any off-nominal launch-related events. The economic impacts would vary significantly based on aircraft/vessel type, operational flexibility, alternative routing options, scheduling constraints, and any buffers within these operational scenarios.

Furthermore, as Relativity Terran R operations become more reliable at the CCSFS launch site, the effect on airspace and maritime activities with each launch/reentry operation may decline due to the implementation of numerous protocols and procedures, compliance with necessary notification requirements (i.e., NOTAMS and NOTMARS), and airspace coordination activities between Relativity, FAA, and USCG. Economic theory also recognizes that self-interested entities whose decisions are primarily driven by gain, logical analysis and preferences may adjust their behavior to recurring, predictable constraints. As such, airlines and other users of the airspace may incorporate known operational constraints from repeated launch and reentry operations as they become more reliable and predictable into their routing, scheduling, and pricing decisions.

Given these factors and the high sensitivity of impacts to unpredictable operational variables, the lack of stable causal relationships, and the potential adaptation of affected users over time, any present attempt to estimate the long-term economic impact of airspace and maritime closures for the proposed action likely may be overstated and unreliable, and as such, too speculative, to reasonably inform the decision-maker's choice among potential alternatives.

Though the Proposed Action would include these economic impacts from airspace closures, there would be no change in the number of operational personnel or taxes to commercial airlines. There would be changes in expenditures due to the delays and associated airline income, but there would be no change expected to economic activity, personal income, employment, population, sustenance, public services, and/or social conditions.

- **Department of Transportation Act Section 4(f) Properties, SEA Section 3.14.**

FAA Order 1050.1F, Exhibit 4-1, provides FAA's significance threshold for Section 4(f) resources: "[t]he action involves more than a minimal physical use of a Section 4(f) resource or constitutes a 'constructive use' based on an FAA determination that the aviation project would substantially impair the Section 4(f) resource. Resources that are protected by Section 4(f) are publicly owned land from a public park, recreation area, or wildlife and waterfowl refuge of national, state, or local significance, and publicly or privately owned land from an historic site of national, state, or local significance. Substantial impairment occurs when the activities, features, or attributes of the resource that contribute to its significance or enjoyment are substantially diminished."

Relativity's proposed operations do not include permanent incorporation or temporary occupancy of any potential Section 4(f) properties. Therefore, there would be no physical use of potential Section 4(f) properties.

For decades, the Section 4(f) resources that would be affected by this Proposed Action have been experiencing increased noise levels during launches taking place at KSC and CCSFS. Due to the proximity of the potential Section 4(f) properties to SLC-16, these properties may experience temporary increases in noise from proposed Terran R launches. The DNL 60 dBA contour is used to conservatively identify the potential for significant noise impacts resulting from the propulsion noise generated by Terran R operations at 4(f) properties. The area identified within the 60 dBA contour is entirely within CCSFS. This low magnitude of annoyance at only occasional times is not expected to diminish the significance and enjoyment of 4(f) properties.

Sonic booms from Terran R launch and landing operations would not affect Section 4(f) properties because sonic booms would occur entirely over the Atlantic Ocean. Due to the long history of these properties experiencing noise and temporary closures associated with launches at CCSFS and KSC, the Proposed Action would not substantially diminish the protected activities, features, or attributes of any of the properties identified, and thus would not result in substantial impairment of the properties. The Proposed Action would not be considered a constructive use of these properties.

Therefore, the Proposed Action would not result in significant impacts on Section 4(f) properties.

Please refer to Chapters 3 of the SEA for a full discussion of the determination for each environmental impact category.

Public Involvement

On August 8, 2023, the USSF published the draft SEA and draft FONSI/FONPA on the CCSFS website at <https://www.patrick.spaceforce.mil/>, beginning the public comment period. The USSF provided a public notice of availability of the draft SEA for public review and comment through local newspaper advertisements in the Florida Today and The Hometown News. Copies of the draft SEA and draft FONSI/FONPA were also made available for review at six public libraries: Cape Canaveral Public Library, Titusville Public Library, Cocoa Beach Public Library, Port St John Public Library, PSFB Library, and Merrit Island Public Library. The public comment period ended on September 9, 2023. The USSF received three public comments, and the USSF considered all public comments when preparing the final SEA. Public and agency comments are provided in Appendix I of the SEA.

Conditions and Mitigation

Consistent with Paragraph 7-2.3 of FAA Order 1050.1F, the USSF has assumed full responsibility and is committed to implementing or monitoring Relativity's compliance with the mitigation measures related to construction and government missions. FAA has jurisdiction over FAA-licensed operations only and thus can only enforce measures that are related to licensed operations. As prescribed by FAA Order 1050.1F, FAA shall take steps as appropriate to the action, through mechanisms such as the enforcement of licensing conditions, and shall monitor these as necessary to ensure that Relativity implements avoidance, minimization, and/or mitigation measures as set forth in Chapter 3 of the SEA under the various impact categories. The USSF is responsible for mitigation associated with construction.

USFWS Biological Opinion (BO)

The USSF consulted the USFWS to address potential effects to ESA-listed species from Terran R operations at SLC-16. The USFWS issued a BO that concluded the action would result in incidental take of southeastern beach mouse and tricolored bat. The BO contains non-discretionary terms and conditions (T&Cs) and monitoring and reporting requirements (M&Rs). The USSF is responsible for ensuring the following are implemented:

Terms and Conditions: Southeastern Beach Mouse

- Minimize Future Impacts to Southeastern Beach Mouse Enhancement Area. Future impacts to areas established as southeastern beach mouse habitat enhancement areas will be avoided by the USSF. In the event impacts are unavoidable or if the southeastern beach mouse habitat enhancement area is unable to be maintained, the area shall be compensated at twice the original acreage ratio (e.g., if an enhancement area that was originally offset at a 2:1 ratio is impacted, then it will be compensated at a 4:1 ratio).
- Invasive Species. The USSF, Relativity, and associated contractors shall ensure all equipment is clean and free from dirt and seeds that might provide a vector for invasive vegetation to the greatest extent practicable prior to commencement of any work within the action area. The USSF will ensure this by conducting a visual inspection of all equipment prior to land management activities. All personnel associated with construction and land management activities shall be briefed by SLD 45 prior to work about the potential spread of invasive vegetation and its impact on native vegetation and wildlife.

Terms and Conditions: Tricolored Bat

- Education. SLD 45 will facilitate dissemination of education materials, either in-person or electronic/paper materials to launch tenant. To minimize potential impacts, education should focus on potential tricolored bat interactions, as well as other listed species.
- Pup Season Avoidance. The USSF will avoid land clearing activities related to southeastern beach mouse habitat enhancement May 1 – June 30, during the time of the year non-volant tricolored bat pups may be present in maternity roosts.
- Roost Retention. When conducting land management related to southeastern beach mouse habitat enhancement, the USSF will retain at least 1 tree per 5 acres of impacted area. These trees should

be suitable for tricolored bat roosting, with an approximate minimum height of 16 meters and minimum diameter of 0.5 meters. Large hardwood trees are preferred, but limited availability may restrict opportunities.

Monitoring and Reporting Requirements

- Reporting Coastal Scrub Acreage Cleared. After construction is completed, report to the Service the sum of acreage of coastal scrub habitat that was modified or cleared within the area of construction, any modifications that needed to be made to the project, and any listed or at-risk species were observed within the project area. This should be reported to the SLD 45 Natural Resource Managers as well as to the Service.
- Disposition of Dead or Injured. Upon locating a dead, injured, or sick threatened or endangered species, notification must be made to the USFWS Liaison to SLD 45 and by email to FW4FLESRegs@fws.gov within 24 hours. Care should be taken in handling dead specimens to ensure biological material is preserved in the best possible state for later analysis as to the cause of death. If a dead specimen is found in the project area, the specimen should be thoroughly soaked in water and frozen for later analysis of cause of death. In conjunction with the preservation of biological materials from a dead animal, the finder has the responsibility to carry out instructions provided by Law Enforcement to ensure that evidence intrinsic to the specimen is not unnecessarily disturbed.
- Validation of Noise, Heat, and Vibration.⁵ Noise contours, heat plume, and vibration impact caused by launches should be monitored to ensure minimal deviations from what was presented during the consultation process. Areas monitored should include (1) immediately outside of pad boundaries, and (2) at agreed upon distance intervals by SLD 45 and the Service. Monitoring is not required within pad boundaries. Noise monitoring should be conducted for the first three launches only. Heat plume and vibration monitoring should be conducted for the inaugural launch only and shall be the responsibility of SLD 45 conduct.

NMFS ESA Programmatic Letter of Concurrence

NMFS issued an amended PLOC on May 4, 2026 that addresses launch and reentry operations in the marine environment. Relativity must comply with the Project Design Criteria and annual reporting requirements included in the PLOC.

⁵ This monitoring and reporting requirement was modified after completion of the SEA and USFWS BO. SLD45 proposed the new requirement on April 21, 2026, and USFWS concurred on April 22, 2026.

Additional avoidance, minimization, and mitigation measures related to FAA-licensed operations include:

- Relativity will manage deluge water in accordance with applicable regulatory and permitting requirements.
- Launch and landing operations would require the use of hazardous materials including propellants, batteries, and compressed gases. The operation of the Terran R Program would result in additional propellant and fuels usage. Relativity would implement pollution prevention BMPs and prevent pollution via source reduction to the greatest extent feasible.

Adoption

In accordance with NEPA, 42 U.S.C. §§ 4321 et seq., as amended by the Fiscal Responsibility Act of 2023, and FAA Order 1050.1F, FAA has conducted an independent review and evaluation of the Proposed Action. FAA has independently determined that the SEA and its supporting documentation, as incorporated by reference, adequately assess and disclose the environmental impacts of FAA's Federal Action. In addition, FAA's Federal Action as reflected in the SEA is consistent with existing national environmental policies and objectives as set forth in Section 101 of NEPA and other applicable environmental requirements. Accordingly, FAA adopts the SEA, appendices, and all information identified therein, incorporated by reference, and made publicly available

Agency Finding and Statement

FAA has determined that no significant impacts would occur as a result of the Proposed Action. Therefore, the preparation of an EIS is not warranted and no mitigation measures beyond the ones identified by USSF discussed in the SEA are required as a condition of approval and a FONSI/ROD in accordance with FAA Order 1050.1F § 10-2(b) is appropriate. FAA will ensure implementation of all avoidance, minimization, and mitigation measures applicable to licensed operations. After careful and thorough consideration of the adopted SEA and the facts contained herein, the undersigned finds that FAA's Federal Action is consistent with existing national environmental policies and objectives as set forth in Section 101 of NEPA and other applicable environmental requirements and will not significantly impact the quality of the human environment or otherwise include any condition requiring consultation pursuant to Section 102(2)(C) of NEPA. Therefore, an EIS will not be prepared.

The undersigned has carefully considered FAA’s statutory mandate under 49 U.S.C. § 40103 to ensure the safe and efficient use of the National Airspace System as well as the other aeronautical goals and objectives discussed in the SEA. The undersigned finds that FAA’s Federal Action provides the best approach for meeting the purpose and need of that action.

Accordingly, under the authority delegated to the undersigned by the Administrator of FAA, the undersigned approves and authorizes all necessary agency action to implement FAA’s Federal Action.

This decision signifies that applicable federal environmental requirements relating to FAA’s Federal Action have been met. The decision enables FAA to implement that action.

**STACEY MOLINICH
ZEE**

Digitally signed by STACEY
MOLINICH ZEE
Date: 2026.09.17 12:06:38 -04'00'

APPROVED: _____

DATE: _____

Stacey M. Zee
Manager, Operations Support Branch

Right of Appeal

This FONSI/ROD constitutes final order of the FAA Administrator and is, in most cases, subject to exclusive judicial review under 49 U.S.C § 46110 by the U.S. Circuit Court of Appeals for the District of Columbia or the U.S. Circuit Court of Appeals for the circuit in which the person contesting the decision resides or has its principal place of business.