ENVIRONMENTAL IMPACT STATEMENT

SPACEX STARSHIP-SUPER HEAVY LAUNCH VEHICLE AT LAUNCH COMPLEX 39A

at the Kennedy Space Center, Merritt Island, Florida

Final, Volume II, Appendix A.2

January 2026

Federal Aviation Administration

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A.2 Draft EIS Review

A.2.1 Draft EIS Review Summary

In accordance with the NEPA of 1969, as amended (42 United States Code [U.S.C.] 4321 et seq.) and the FAA's procedures for implementing NEPA (FAA Order 1050.1F), the FAA released the Draft Environmental Impact Statement (DEIS) for public review and comment on August 8, 2025. The DEIS was made available to the public electronically on the Federal Non-rulemaking Docket Portal (Docket number FAA-2024-1395) and on the FAA website at https://www.faa.gov/space/stakeholder_engagement/spacex_starship_ksc.

Hard copy versions were made available at the following libraries:

- Cocoa Beach Public Library, 550 N. Brevard Avenue, Cocoa Beach, Florida 32931
- Central Brevard Library and Reference Center, 308 Forrest Avenue, Cocoa, Florida 32922
- Cape Canaveral Public Library, 201 Polk Avenue, Cape Canaveral, Florida 32920
- Titusville Public Library, 2121 S. Hopkins Avenue, Titusville, Florida 32780
- Merritt Island Public Library, 1195 N. Courtenay Parkway, Merritt Island, Florida 32953
- Satellite Beach Public Library, 751 Jamaica Boulevard, Satellite Beach, Florida 32937

The FAA placed a notice in the Federal Register, made an announcement on the FAA's website, and published advertisements in local newspapers announcing the availability of the DEIS along with its public review and comment period. The FAA also provided letters and email notifications to those on a curated distribution list, announcing DEIS availability. Notices were provided in English and Spanish. The public review and comment period was open from August 8, 2025, to September 29, 2025[1]. The purpose of releasing the DEIS to the public was to solicit comments from the public, agencies, and other interested stakeholders regarding the content and analysis presented in the document. Table A.2-1 provides a summary of the DEIS availability notifications.

Table A.2-1. DEIS Availability Notification Summary

Notification Type	Publication	Date Published
FAA Federal Register Notice of Availability	Federal Register	August 6, 2025
USEPA Federal Register Notice of Availability	Federal Register	August 8, 2025
Website	FAA Website	August 4, 2025
Newspaper Advertisements	*Orlando Sentinel*, Orlando, Florida	August 10, 11, 12, & 15, 2025
	Florida Today, Brevard County, Florida (Melbourne)	August 10, 11, 12, & 15, 2025
	Al Dia Today, Central Florida (English and Spanish)	August 5, 2025
Email Notification Eblast	Email sent from the FAA	August 4, 2025
Email Notification Eblast	Email sent from the FAA	September 22, 2025

Notes: DEIS = Draft Environmental Impact Statement; FAA = Federal Aviation Administration; USEPA = United States Environmental Protection Agency.

[1] The public review and comment period was initially scheduled to close on September 22, 2025; however, the FAA extended the comment period until September 29, 2025.

Draft EIS Public Meetings

The FAA held four in-person public meetings and one virtual public meeting to solicit comments on the DEIS. In addition to announcing the availability of the DEIS, the Federal Register, website, and newspaper announcements also provided notification of the public meetings. In addition, flyers were placed at the aforementioned local libraries, and media announcements were provided to local media outlets. At the meetings, the FAA described the environmental review process, discussed the Proposed Action and alternatives, summarized the environmental analysis presented in the DEIS, and provided the public an opportunity to offer comments. Table A.2-2 provides information regarding the public meetings.

Table A.2-2. DEIS Public Meeting Summary

Meeting	Number of Attendees	Number of Comment Submittals
Astronauts Memorial Foundation, Center for Space Education, Conference Center August 26, 2025 1 p.m. to 3 p.m.; 6 p.m. to 8 p.m. EDT	143 Media: 8	Verbal: 23 Written: 8
Radisson Conference Center, Grande Caribbean Ballroom August 28, 2025 1 p.m. to 3 p.m.; 6 p.m. to 8 p.m. EDT	198 Media: 5	Verbal: 35 Written: 12
Virtual Meeting September 3, 2025 6 p.m. to 8 p.m. EDT	186 Media: 1	Verbal: 25
Total	**540**	103

Notes: DEIS = Draft Environmental Impact Statement; EDT = Eastern Daylight Time.

Draft EIS Public/Agency Comments

A submittal consists of any document or verbal statement submitted by the public, agency, or any other entity, regardless of whether the submittal contained any substantive inputs on the DEIS. Single submittals comprised either a single or multiple statements, and in some cases, contained attachments that supported additional statements. The FAA received submittals via the Federal Docket, as verbal comments during the virtual and in-person public meetings, and as mail-in comments via U.S. Postal Service. Table A.2-3 provides a summary of the types and quantity of submittals received.

Table A.2-3. DEIS Submittal Summary

Submittal Type	Quantity
Docket	370
Verbal (Public Meetings)	58
Email (sent by some agencies directly to the FAA)	4
Paper (U.S. Mail)	35
Paper (Public Meeting Comment Form)	20
Total	487

Notes: DEIS = Draft Environmental Impact Statement; FAA = Federal Aviation Administration; U.S. = United States.

Draft EIS Public/Agency Comment Processing

Submittals contained multiple substantive and non-substantive comments. Substantive comments are those that challenge the DEIS as being factually or analytically incorrect, identify impacts not analyzed in

the DEIS, identify reasonable alternatives not included in the DEIS, identify feasible mitigations not previously considered by the FAA in development of the DEIS, or offer differences in interpretations of significance and/or scientific and technical conclusions within the DEIS. The FAA is obligated to respond to substantive comments. Non-substantive comments are those that are generally non-specific, agree or disagree with the proposal, provide a vote for or against the proposal, or state a personal preference or opinion. The FAA is not obligated to provide responses to non-substantive comments. All comments received on this proposal will be included in the Administrative Record regardless of when they were received and regardless of their substantive or non-substantive nature.

A summary of the processing procedure is outlined below:

1) ***Submittal ID***: Each submittal was given a unique identification number—a *Submittal ID*. This number was either electronically generated by the Federal Docket as part of the submittal process or was assigned by the FAA based on the format of the submittal:

- FAA-2024-1395-XXXX (where FAA-2024-1395 is the Docket Number, and "XXXX" represents the submittal number, such as 0001, 0002, etc.)
- Public Meeting-(XXXXXX)-[XXXX]-XXXX, where (XXXXXX) represents the date of the public meeting (e.g., 082625); [XXXX] represents the individual commenter associated with that meeting (e.g., commenter 0001, 0002, etc.); and XXXX represents the individual comment associated with that respective commenter (e.g., 0001, 0002, etc.). For example, Public Meeting-090325-0005-0001 represents Comment #1 from Commenter #5 from the virtual meeting held on September 3, 2025.
- TEMP-(XXXX)-XXXX (where "Temp" represents a U.S. Mail submittal, (XXXX) represents the unique submittal number [e.g., mail-in submittal 0001, 0002, etc.], and "XXXX" represents the comment number associated with that respective submittal, such as 0001, 0002, etc.).

2) ***Issue ID***: The FAA reviewed each submittal to determine whether it contained any substantive comments. Each substantive comment within a submittal was then assigned a code based on the issue associated with the comment. Issues were identified as follows:

(1) NP = NEPA Process (includes Public Involvement/Notifications)
(2) PN = Purpose and Need
(3) PA = Proposed Action and Alternatives
(4) NO = Noise (includes Sonic Booms/Overpressure, Propulsion/Launch Noise, Structural Damage)
(5) LU = Land Use (includes Public Restricted Access, Agency Land Management, Other Launch Providers)
(6) SO = Socioeconomics (includes Fisheries and Tourism and Children's Health and Safety)
(7) – Not Used
(8) CR = Historical, Architectural, Archaeological, and Cultural Resources
(9) – Not Used
(10) 4(f) = Department of Transportation (DOT) Act Section 4(f)
(11) BR = Biological Resources (includes Federally Protected Species, Critical Habitat, Essential Fish Habitat, Migratory Birds/Bald Eagles, State Species)
(12) WR = Water Resources (includes Surface Waters, Floodplains and Wetlands)
(13) CO = Coastal Resources (includes Coastal Zone Management Act)
(14) AQ = Air Quality

(15) CL = Climate
(16) HW = Hazardous Materials and Hazardous Waste
(17) – Not Used
(18) PP = Pollution Prevention
(19) – Not Used
(20) – Not Used
(21) TR = Transportation (includes Airspace, Maritime, Roadways)
(22) UT = Utilities and Infrastructure (includes Potable Water, Wastewater, Electricity, Natural Gas)
(23) HS = Health and Safety (includes Anomalies)
(24) MT = Mitigations
(25) OT = Other topics/miscellaneous (e.g., cumulative effects)

3) ***Response ID***: Each response to a substantive comment within a submittal was then assigned a code (i.e., a *Response ID*) based on the Issue ID associated with the comment, which consisted of the Issue ID (e.g., NP, AQ, etc.) and a number based on whether the comment was unique and required a discrete response (for example, Response ID NP-1, AQ-2, etc.). Some submittals contained similar comments; these comments were all assigned the same Response ID if a single response could be applied. As an example, several submittals had a similar comment asking whether vibration effects to structures were assessed; these were all given the same Response ID even though they were from different submittals. Submittals containing non-substantive comments were not identified or bracketed with a Response ID nor provided with a response.

A.2.2 Draft EIS Public and Agency Comments and Responses

As noted in Table A.2-3, the FAA received 487 submittals. Of those, the FAA identified 800 substantive comments. The following provides a summary of concerns and issues raised via public and agency comments, with representative comments and a general response based on the thematic content of the comments associated with the issue/topic area. While these general responses may address overall themes, many comments asked specific questions or made specific points or requests that warranted specific, unique answers. In this case, Section A.2.3, *Draft EIS Public/Agency Notifications*, provides a matrix identifying the Issue Commenter Name, Submittal ID, Comment Excerpt, Response ID, and specific response.

A.2.2.1 NEPA Process (Issue ID 1)

Commenters expressed concerns regarding the NEPA environmental review process, generally calling for a more empirical, transparent, and scientifically rigorous approach to environmental review under NEPA. Stakeholders expressed concern that the analysis in the DEIS relies too heavily on speculative modeling and assumptions, particularly in areas where real-world data is lacking. Commenters noted that the DEIS does not specify when baseline studies began or ended, raising the possibility that the studies were too brief to capture seasonal or long-term environmental variability. Commenters expressed concern about the level of public involvement and engagement with stakeholders. Specific concerns included the lack of in-person scoping meetings and specific stakeholders that were not consulted.

Representative Comments: The following are representative comments in the NEPA Process category:

- *Comment 1: "Many technical analyses rely on models and assumptions that may not have been independently peer reviewed or certified."*
- *Comment 2: "For each technical study (noise monitoring, air quality baseline, wildlife surveys, structural testing), provide the start and end dates; number of sampling days; range of meteorological and seasonal variation captured."*
- *Comment 3: "It is unbelievable the public has not been considered as a stakeholder."*
- *Comment 4: "Stakeholders listed in this EIS do not include several key organizations, such as the U.S. Army Corps of Engineers, National Oceanographic and Atmospheric Administration, Space Florida, Florida Department of Environmental Protection, St. Johns River Water Management District, South Atlantic Fishery Management Council and the Indian River Lagoon National Estuary Program."*
- *Comment 5: "Only three in-person scoping meetings and one virtual meeting were held. Representation may not reflect the diverse communities most affected."*

Response: The EIS was prepared by the FAA in compliance with NEPA and other Federal laws. While independent contractors contributed to the EIS, the FAA retains full oversight for NEPA compliance. National Historic Preservation Act (NHPA) and Endangered Species Act (ESA) consultations involve consultation with the Florida State Historic Preservation Office (SHPO) and U.S. Fish and Wildlife Service (USFWS), respectively. Cooperating agencies include the Department of the Air Force (DAF), National Aeronautics and Space Administration (NASA), USFWS, United States Coast Guard, and the National Park Service. The "Baseline" consists of the existing environment, utilizing best available data to characterize the affected environment at the time of EIS development. Each EIS resource section has a *Study Area* section defining the extent of the area addressed, and an *Existing Conditions* section describing the existing environment. References are provided as applicable for information utilized as baseline where field studies were not utilized. In addition, the *Environmental Consequences* section for each resource area provides information on the methodology utilized for analyses, along with any data utilized. NEPA (42 U.S.C. §4336(b)(3)(A), (B)) states that an agency may make use of "any reliable data source" and that an agency is "not required to undertake new scientific or technical research" unless "essential to a reasoned choice among alternatives, and the overall costs and timeframe of obtaining it are not unreasonable." NEPA does not require the analyses to be "peer reviewed." As part of the NEPA process, the public and all regulatory agencies with jurisdiction are considered stakeholders. The FAA has invited public and agency participation in the NEPA process via the scoping process and the DEIS review and comment process. Section 1.4, *Public Involvement*, of the EIS summarizes the public engagement process used throughout the NEPA process. Virtual and in-person hearings were held for both scoping and the publication of the DEIS, and comments were accepted and reviewed during both processes. In addition, newspaper notifications were published, local papers and news outlets were notified, and all documents were posted to the FAA website. This appendix provides further detailed information regarding the public involvement process.

Responses to specific, substantive comments regarding this issue area are provided in the Comment Response Matrix provided at the end of this section.

A.2.2.2 Purpose and Need (Issue ID 2)

Commenters emphasized the economic and strategic benefits of Starship-Super Heavy operations by referencing job growth, enhanced infrastructure at KSC, strengthened U.S. leadership in space, and widespread technological and scientific advances. Other topics discussed included requests that the specific "public interests" discussed in the EIS be disclosed, and some questioned the necessity of the Starship-Super Heavy launches.

Representative Comments: The following are representative comments in the Purpose and Need category:

- *Comment 1: "A Gateway to a Technologically Enhanced Future Starship operations at scale mean humanity can put vastly more mass in orbit at a fraction of the cost. That new capability is the catalyst for breakthroughs across nearly every sector."*
- *Comment 2: "Launching the world's most powerful, fully reusable rocket from a historic U.S. site strengthens American leadership in space. At a time of intensifying international competition, this capability ensures the United States remains at the forefront of exploration, innovation, and security."*
- *Comment 3: "Clarification of 'Public Interests' in Section ES.4. The DEIS references 'public interests' in Section ES.4, but does not provide examples. Please clarify what specific public interests are being invoked. For transparency, the EIS should detail whether these include national defense, commercial competitiveness, scientific advancement, economic development, or other categories."*
- *Comment 4: "As for the proposed Super Heavy launches, why is this needed? The environmental impact will be tremendous."*

Response: The purpose and need for the Proposed Action is identified in EIS Section 1.3. LC-39A was previously sited for Starship-Super Heavy activities through NASA's *Final Environmental Assessment* [EA] *for the SpaceX Starship and Super Heavy Launch Vehicle at Kennedy Space Center (KSC)* (referred to as "2019 NASA EA" throughout this document) and resultant Finding of No Significant Impact. As established in the 2019 NASA EA, the purpose of Starship-Super Heavy at Launch Complex (LC)-39A is to provide greater mission capability to NASA and other Space Exploration Technologies Corp. (SpaceX) customers. SpaceX's activities would continue to fulfill the United States' expectation that increased capabilities and reduced space transportation costs will enhance exploration (including within the Artemis and Human Landing System [HLS] programs), support U.S. leadership in space, and make space access more affordable. The Space Transportation section of the National Space Transportation Policy of 1994 addressed the commercial launch sector, stating that "assuring reliable and affordable access to space through U.S. space transportation capabilities is a fundamental goal of the U.S. space program."

Starship-Super Heavy at LC-39A is needed to increase operational efficiency, capabilities, and cost effectiveness of the Starship-Super Heavy program. Satisfaction of these needs reduces operational costs and benefits government and public interests (which include more efficient and effective space transportation methods and continuation of the United States' goal of encouraging activities by the private sector to strengthen and expand U.S. space transportation infrastructure) and reduces operational costs. Demand for launch services has continued to increase over the past 20 years, and the space industry growth projections indicate this will continue into the foreseeable future. By providing a reusable launch vehicle with increased lift capability that returns to its launch site, the Proposed Action would reduce the

cost of launch and increase efficiency, delivering greater access to space and enabling cost-effective delivery of cargo and people to the moon and Mars.

Responses to specific, substantive comments regarding this issue area are provided in the Comment Response Matrix provided at the end of this section.

A.2.2.3 Proposed Action and Alternatives (Issue ID 3)

Some commenters expressed general support for the Proposed Action. Other commenters expressed concern that the FAA did not consider alternative launch locations, landing locations, and cadences that would be less disruptive to the community and other launch operators. Multiple commenters requested that the FAA consider an alternative in which some or all the proposed Starship-Super Heavy operations occur at the SpaceX site in Boca Chica, Texas. Commenters asked why infrastructure improvements to support proposed operations have already occurred at LC-39A if a license has not yet been issued.

Representative Comments: The following are representative comments in the Proposed Action and Alternatives category:

- *Comment 1: "Please consider alternatives—such as relocating the pad or building a new access road within the safety zone—so that we can remain safe while enjoying our Space Coast and still have access to the beach we cherish."*
- *Comment 2: "FAA should establish an alternative that brings [noise/sonic boom] impacts below a level of significance and within FAA's own compatible thresholds. If this is not possible, FAA should choose the No Action Alternative."*
- *Comment 3: "One alternative worth serious consideration is limiting the majority of launches to SpaceX's Starbase site in Texas. While I recognize why SpaceX seeks dual sites, concentrating high-frequency operations in Texas would substantially reduce environmental & community impacts in Florida."*
- *Comment 4: "Section ES.2 of the DEIS notes that infrastructure improvements have already been constructed at LC-39A for Starship-Super Heavy operations, including the construction of a launch mount and related capital development. Did NASA, the FAA, or any other federal authority authorize SpaceX to make these capital and site improvements before the company had a license for Starship-Super Heavy launch operations?"*

Response: EIS Section 2.1.6, and Section 2.3, *Alternatives Considered but Eliminated from Further Analysis*, discuss the alternative selection process. The 2019 NASA EA, Section 2.2, outlines the selection of LC-39A. At the time, the alternative selection process for the Starship-Super Heavy operations identified LC-39A as the most viable location due to its relative environmental impact, available real estate, existing infrastructure, distance from population centers, and clear launch azimuths for public safety. Other sites, such as Space Launch Complex-40 at Cape Canaveral Space Force Station (CCSFS) and Space Launch Complex-4 at Vandenberg Space Force Base, were considered but deemed unsuitable due to limitations in infrastructure, size, and transport distance.

LC-39A was approved in NASA's 2019 EA and Finding of No Significant Impact, and infrastructure development began in 2020. It supports NASA's Artemis and HLS programs and provides time-critical mission capability for lunar exploration and commercial pursuits. In the future, SpaceX may utilize

Starship-Super Heavy to support the Artemis and HLS programs from its facility in Cameron County, Texas. This action would be analyzed in a separate NEPA document. No other launch sites were considered for this Proposed Action.

Responses to specific, substantive comments regarding this issue area are provided in the Comment Response Matrix provided at the end of this section.

A.2.2.4 Noise (Issue ID 4)

Commenters raised concerns about the noise and vibration impacts of Starship-Super Heavy launches, including insufficient evaluation of effects on local communities, structural damage to properties in Brevard County, and impacts on older homes and buildings. Commenters highlighted sonic booms as a major concern, with questions about the accuracy of PCBoom software in predicting booster-flyback sonic booms. Additional concerns included effects on KSC, human health, marine mammals, and cultural resources. Commenters also discussed sound levels and duration of noise, and recommended edits to DEIS figures and tables regarding noise exposure areas, such as Canaveral National Seashore (CANA). Commenters requested more detailed testing information and risk thresholds for structural damage, including residential plumbing testing.

Representative Comments: The following are representative comments in the Noise category:

- *Comment 1: "The issue of Noise and Vibration does not seem to have been realistically evaluated. Apparently, a recent launch sound study by Dr. Kent Gee, indicates that sound levels during a Starship launch could reach 125 dba [A-weighted decibels] in Titusville, an unacceptable level. It is not clear that the sonic booms from landings have been evaluated. This issue could profoundly affect Titusville and other surrounding N. Brevard communities."*
- *Comment 2: "The DEIS recognizes that the Proposed Action may cause 'interference with activities, such as conversation, watching television, or sleeping may occur because of proposed annual Starship-Super Heavy operations, booster static fire tests, and Starship static fire tests, with maximum noise levels as high as 97 dBA and sonic boom overpressures as high as 4.8 psf [pounds per square foot] at locations studied outside of KSC/CCSFS.' This characterization downplays adverse and cumulative impacts of noise events. The DEIS fails to explicitly state that the adverse effects of cumulative noise on members of the community is a significant impact under NEPA, requiring effective mitigation."*
- *Comment 3: "While I understand and support the advancement of space exploration, I am deeply concerned about the structural impact of sonic booms associated with rocket landings. My home experiences noticeable vibrations during Falcon Heavy launches, with doors and shelving visibly shaking. The return sonic booms place enormous stress on the roof structure, and I fear that repeated exposure could lead to long-term damage."*
- *Comment 4: "As noted by Anderson et al., 'Sonic boom prediction software, like NASA's PCBoom software, has generally been designed and validated for use with air-breathing, aerodynamic-lift-producing jet aircraft, rather than rockets and reentry vehicles,' leaving 'whether the physics are fully understood and modeled an open question. Given this uncertainty, the NPS [National Park Service] recommends that the DEIS include an acknowledgement that existing sonic boom modeling software may not be capable of predicting the unique properties of booster-flyback sonic booms.'"*

- *Comment 5: "My home is across the Indian River Lagoon from launch pad 39A. My house has started to show cracks in the last five years of increased rocket launches and sonic booms of the large rockets currently being launched."*
- *Comment 6: "The DEIS has only considered vibrations on historic buildings but has not evaluated the effects of vibrations of the Super Heavy rocket on the tens-of-thousands of local residences. Titusville has an older housing stock which will receive a lot of damage from the Super Heavy rocket."*

Response: Section 3.2, *Noise and Noise-Compatible Land Use*, of the EIS addresses noise and vibration, and Appendix C, *Resource Area Supporting Information*, Section C.1, *Noise Assessment and Noise Assessment*, of the EIS provides detailed modeling of predicted noise impacts, including percent awakenings and figures showing propulsion noise and sonic boom contours. Operational noise, including sonic booms, is recognized as having a potentially significant impact based on community annoyance (see EIS Section 3.2.4.2.2, *Noise and Noise-Compatible Land Use, Operation*). Even under the No Action Alternative, given ongoing and reasonably foreseeable actions identified in EIS Section 2.2, *Proposed Action and Alternatives, No Action Alternative*, noise effects are noticeable into portions of the City of Cape Canaveral and parts of Merritt Island. The EIS acknowledges that the Proposed Action, in combination with reasonably foreseeable actions, would result in potentially significant noise effects (EIS Section 3.2.4.2.3, *Noise and Noise-Compatible Land Use, Reasonably Foreseeable Effects*). Interference with activities, such as conversation, watching television, or sleeping may occur because of proposed annual Starship-Super Heavy operations, booster static fire tests, and Starship static fire tests, with maximum noise levels as high as 97 A-weighted decibels and sonic boom overpressures as high as 4.8 psf at locations studied outside of KSC/CCSFS (refer to EIS Table 3.2-5 and Table 3.2-6). Sonic booms generated during late-night Super Heavy booster landings (22 per year) and Starship landings (22 per year) would generate noise levels associated with up to 81 percent of *people exposed* being awakened at representative locations off KSC/CCSFS (refer to EIS Table 3.2-8). This does not, however, imply that 81 percent of all residents outside KSC/CCSFS would be awakened. Regardless, the FAA acknowledges that this is a significant effect. The FAA has added more information regarding the health effects of sleep disturbance to Section 3.2 and Section 3.18, *Health and Safety*, of the Final EIS.

Based on sonic boom and noise modeling (EIS Appendix C, *Resource Area Supporting Information*, Section C.1, *Noise Assessment and Noise Assessment*), the FAA determined the probability of structural damage to be approximately 1 in 10,000 to 1 in 100,000. Window panes are designed to deflect to some extent and vibrate within their frames, allowing them to hurricane-force winds as well as pressure incident on the glass from launch and landings. While rattling may be more frequent, the probability of a window breaking from Starship-Super Heavy operations is quite low. This will be verified by historic structure monitoring during operations, which will occur for a variety of sound pressure levels based on agreements with the Florida SHPO (see EIS Appendix B, *Regulatory Consultations*). Monitoring older, historic structures is expected to provide the best data regarding risk to structural integrity within the study area. FAA regulations (14 CFR Part 440) and the Commercial Space Launch Act require SpaceX to carry insurance in the amount of the "Maximum Probable Loss," which is determined on a launch-by-launch basis to cover claims by third parties that result from licensed activities. If property damage results from Starship-Super Heavy operations, the damage claim would be subject to the insurance policy terms. Insurance claim can be submitted by sending an email to insurance@spacex.com (note – this is not a website; it is an email address). See the *Mitigations* section below for potential mitigations for minimizing potential adverse effects.

Responses to specific, substantive comments regarding this issue area are provided in the Comment Response Matrix provided at the end of this section.

A.2.2.5 Land Use (Issue ID 5)

Commenters emphasized the need for the EIS to address legal obligations, improve transparency, and accurately assess the cumulative and operational impacts of Starship-Super Heavy launch activities on public resources and local communities. Concerns were raised about understated closure estimates, inadequate public notification systems, and insufficient stakeholder engagement. Commenters argued that the scale and frequency of operations could significantly affect conservation values, recreation, tourism, and local economies, with closures potentially denying public access to key areas like Playalinda Beach, CANA, and Merritt Island National Wildlife Refuge (MINWR) for up to a third of the year. They questioned the legal authority for extensive restrictions on federally protected lands and called for robust mitigation measures, such as alternative access routes, compensation for lost revenue, and operational changes to minimize closures. Other launch providers expressed concerns about disruptions to their operations due to overlapping activities at KSC and CCSFS, urging the DEIS to account for cumulative effects and improve planning for future demand.

Representative Comments: The following are representative comments in the Land Use category:

- *Comment 1: "The FAA considers these effects to be significant; although noise and closure events would be temporary, the increased decibel level and closure cadence exceeds what CANA has previously experienced."*
- *Comment 2: "When they say they are going to close the beach for 60 days, I don't really see that anywhere written. And I think the public is not as informed about that. But we also know that that is not a real 60 days because there is going to be scrubs. And then they are going to have to close it again and then they are going to have to close it again. That is a lot of impact."*
- *Comment 3: "Accurate disclosure of the total impact on the 2.1 million visitors annually due to closures of any part of the Canaveral National Seashore, Merritt Island National Wildlife Refuge, and the waters of Mosquito Lagoon is important. The 60.5 days of closure appears to be an underestimate of actual closure times, as launch scrubs and weather delays are extremely common in the space vehicle launch process."*
- *Comment 4: "Closure of Playalinda beach and other activities at Canaveral National Seashore will negatively impact the largest recreation area for thousands of people who live in Brevard County and will impact our economic system by reducing ecological tourism at Merritt Island National Wildlife and the Seashore."*
- *Comment 5: "We disagree that closing the Playalinda Beach from 44 to 60 days will be 'insignificant.' This ignores the health benefits of beach patronage, strains on environmental and staffing resources, and does not give the actual or estimated number of beach closure days due to postponements."*
- *Comment 6: "The assumptions underlying these estimates (e.g. frequency of scrubbed launches, weather delays, average launch timing) are not clearly defined. Without clarity, estimates may be overly optimistic (or pessimistic) but cannot be independently evaluated. Also, the EIS cites 'conservative assumptions' but does not disclose them, making it impossible to independently evaluate the closure projections."*

Response: EIS Section 3.3, *Land Use*, addresses land use, including restricted access, recreation, and land management activities, stating that the Proposed Action aligns with current land uses at KSC and supports space transportation operations. Section 3.4, *Socioeconomics and Children's Environmental Health and Safety Risks*, highlights that NPS and some individual park users may consider closures of Playalinda Beach a significant adverse effect, though the FAA deems these closures temporary and mitigated by robust notification systems. Launch scrubs and delays may occur due to weather, equipment issues, conflicting launch operations, and other reasons. The number and timing of launches and delays cannot be estimated due to the many factors involved. Restricted areas for launches are estimated conservatively and determined mission specifically by Range Safety and the FAA licensing processes, with expectations of reduced restricted areas as vehicle reliability improves. Playalinda Beach closures due to capacity issues already occur, and closures related to the Proposed Action would increase their frequency, with mitigations like advanced notifications minimizing impacts. Resolving conflicts between range users falls outside NEPA analyses and the FAA's mandate, handled instead by range management and scheduling processes. Range Safety regulations ensure public, personnel, and environmental safety during prelaunch and launch operations. KSC informs spaceport programs and partners of planned activities to mitigate conflicts and support efficient planning. See the *Mitigations* section for discussions regarding potential mitigations for minimizing potential adverse effects.

Responses to specific, substantive comments regarding this issue area are provided in the Comment Response Matrix provided at the end of this section.

A.2.2.6 Socioeconomics (Issue ID 6)

Commenters expressed concerns about adverse economic effects from Starship launch activities, including restricted access to recreational areas, property devaluation, and disruptions to industries such as flight, shipping, tourism, and commercial fisheries. Specific concerns included noise, light, and vibration impacts on residential areas, delays in shipping and travel, annual fee losses at national parks, and interruptions to fish behavior affecting fishing operations and economic losses in the fishing industry. Commenters requested full disclosure of the economic impacts and costs in the EIS. Conversely, a few commenters highlighted potential positive socioeconomic impacts, such as educational opportunities through field trips to launch sites and real-time viewing of launches.

Representative Comments: The following comments are representative of the comments in the Socioeconomics category:

- *Comment 1: "It will be very difficult to sell a home/condo with the feature of night-time awakening, window/building damage due to vibrations, and possible hearing loss in the impact zone where several communities will definitely be impacted."*
- *Comment 2: "The DEIS does not clearly account for or quantify the economic cost to airlines, shippers, cruise operators, or import/export operations resulting from these closures."*
- *Comment 3: "Noise and vibration from rocket launches affect fish behavior. Fishermen have reported that the fish leave following a rocket launch. It takes 3-5 days for the fish to come back. Then, when the next rocket launches, the fish leave again."*
- *Comment 4: "Charter and recreational anglers will have increasing difficulty scheduling offshore trips around frequent launch windows and landings."*

- *Comment 5: "There is the negative social and economic impact to the commercial seafood and fishing industries located in and around the Cape area."*
- *Comment 6: "Closing the beaches for 60+ days a year is completely unreasonable especially when so much of the revenue of Florida is tied to them; those are also key environmental areas for both the wellbeing of the environment and our tourism industry."*

Response: EIS Section 3.4.4, *Socioeconomics and Children's Environmental Health and Safety Risks, Environmental Consequences*, addresses tourism, the recreational industry, and potential effects on the local economy. NEPA does not mandate a cost-benefit analysis but agencies may consider the relationship between monetized analyses and qualitative environmental considerations if such an analysis is used. The EIS acknowledges potential localized effects, such as lowered property values for some residents near Starship-Super Heavy operations, though overall property trends in Brevard and Volusia Counties are expected to continue increasing due to economic growth. Maritime traffic would experience delays, reroutes, and cancellations, requiring coordination between the Port of Canaveral, NASA, and CCSFS. Effects on local fisheries are acknowledged but lack empirical data for monetary quantification, with anecdotal evidence suggesting individual impacts rather than significant effects on the southeastern fisheries industry. The EIS therefore focuses on identifying potential effects rather than defining acceptable disruptions. Commercial and general aviation would be affected by airspace closures associated with Starship-Super Heavy launches, booster returns, and Starship reentries and landings. EIS Section 3.4.4.2.2, *Socioeconomics and Children's Environmental Health and Safety Risks*, *Operations*, has been updated to provide more information regarding these potential economic effects.

See the *Mitigations* section for discussions regarding potential mitigations for minimizing potential adverse effects.

Responses to specific, substantive comments regarding this issue area are provided in the Comment Response Matrix provided at the end of this section.

A.2.2.7 Historical, Architectural, Archaeological, and Cultural Resources (Issue ID 8)

Commenters referenced Section 106 of the NHPA and stated the DEIS should evaluate risks to historic and archaeological resources and develop robust archeological monitoring plans.

Representative Comments: The following are representative comments in the Historical, Architectural, Archaeological, and Cultural Resources category:

- *Comment 1: "Under the National Historic Preservation Act (NHPA), the FAA must identify historic properties within the area of potential effects, assess all effects caused by the proposed action, and consult with the Florida State Historic Preservation Officer (SHPO), affected Tribes, and other relevant stakeholders. The DEIS does not include a full range of avoidance, minimization, and mitigation strategies, as it states that 'a final determination of how Starship-Super Heavy launch and landing activities will affect historic properties is not possible at this time, NASA, in coordination with the FAA, intends to develop and execute a PA pursuant to 36 CFR §800.14(b).'"*
- *Comment 2: "evaluate structural integrity risks to historic/archaeological resources."*
- *Comment 3: "The need for a project-specific archaeological monitoring study is clear."*

Response: Section 106 of the NHPA requires Federal agencies to consider the effect of Federal undertakings on historic properties, including historic, archaeological, and cultural resources. As part of the NHPA Section 106 process, NASA, on behalf of the FAA, is leading consultation with the Florida SHPO and federally recognized tribes to help determine the potential effects of the Proposed Action (Appendix B, *Regulatory Considerations*, Section B.3, *National Historic Preservation Act Section 106 Consultation (Florida SHPO)*). Avoidance, minimization, and mitigation strategies for historic structures and archaeological resources are identified in the associated Programmatic Agreement found in Appendix B.3.

A.2.2.8 DOT Section 4(f) (Issue ID 10)

Commenters challenged the FAA's claim that closures at CANA, MINWR, and Playalinda Beach do not require a Section 4(f) review, arguing that these closures constitute a "use" of protected areas and warrant proper analysis. They criticized the FAA's application of an exception to Section 4(f) review, citing other EISs with similar actions that included such analysis. Commenters expressed concerns that the FAA's approach undermines the original intent of the parks' protections, particularly given the frequency of closures, and questioned the adequacy of the FAA's Section 4(f) evaluation.

Representative Comments: The following are representative comments in the DOT Section 4(f) category:

- *Comment 1: "Section 4(f) of the Department of Transportation Act prohibits approval of projects that 'use' publicly owned parks, recreation areas, or wildlife refuges unless there is no feasible and prudent alternative and harm is minimized. The proposed closures at CNS [Canaveral National Seashore] constitute such a 'use' and trigger the heightened protections of Section 4(f). In addition, Secretarial Order 3426 (April 2025) requires that closures of national park units for space operations be reviewed and approved at the highest levels of the Department of the Interior, underscoring the gravity and national importance of maintaining the accessibility of these sites."*
- *Comment 2: "LC39A is surrounded by Merritt Island National Wildlife Refuge and Canaveral National Seashore is within the area that would be impacted by launch activities; as such, this is an improper use of an exemption from the law as both the refuge and the national seashore are qualified 4(f) properties."*
- *Comment 3: "How is the FAA defining 'no use' in its Section 4(f) determination, given that closures restrict public use and access for tens of thousands of visitors annually?"*

Response: Section 3.7, *Department of Transportation Act, Section 4(f)*, of the EIS describes the methodology for assessing constructive use within the context of DOT Section 4(f). The FAA identified relevant Section 4(f) properties and notified the official with jurisdiction regarding the FAA's finding of no constructive use (see EIS Appendix B, *Regulatory Consultations*, Section B.4, *Department of Transportation Act Section 4(f) Consultation*). Regarding the CANA and MINWR exception, as noted in EIS Section 2.1.4, *Proposed Action and Alternatives, LC-39A Infrastructure*, there is no construction or development proposed on CANA. In addition, the FAA considered Federal Highway Administration/Federal Transit Administration regulations as guidance and concluded that the applicability provision stating that "When a property is formally reserved for a future transportation facility before or at the same time a park, recreation area, or wildlife and waterfowl refuge is established," – Kennedy Space Center acquired center land and was established in 1962; the MINWR was then established in August 1963 to provide a buffer zone for the space operations; CANA was established in 1975 –... "then any resulting impacts of the

transportation facility will not be considered a use...". See 23 CFR §774.11(i). The need for closure of small parts of CANA is to meet the needs of the space and defense programs of the nation as described in the EIS Section 1.3, *Purpose and Need* and supports public safety in this regard (the closure is specifically for public safety).

Responses to specific, substantive comments regarding this issue area are provided in the Comment Response Matrix provided at the end of this section.

A.2.2.9 Biological Resources (Issue ID 11)

Commenters expressed concerns about the cumulative and compounding impacts of rocket launches on sensitive wildlife and habitats in areas like the Indian River Lagoon, MINWR, and CANA. Commenters highlighted species such as redfish, black drum, manatees, sea turtles, shorebirds, and federally protected species like loggerhead turtles, Florida scrub-jays, and dolphins as particularly vulnerable to noise, vibration, sonic booms, artificial lighting, pollution, and habitat disturbance. Commenters argued that the DEIS underestimates these risks and lacks detailed, long-term data, sufficient modeling, and enforceable mitigation measures. Specific concerns included disrupted communication, altered spawning and nesting behaviors, increased stress, and diminished reproductive success. Recommendations included species-specific impact assessments, continuous monitoring, collaboration with conservation experts, and science-based mitigation strategies. Commenters raised additional concerns about water quality impacts from launch pad runoff, beach erosion, and toxins affecting migratory bird habitats and breeding areas. Commenters urged a precautionary and transparent approach to protect the region's ecological integrity and ensure the survival of threatened and endangered species.

Representative Comments: The following are representative comments in the Biological Resources category:

- *Comment 1: "The DEIS may underestimate the compounding stressors facing species and habitats, including nutrient pollution, noise, vibration, sonic booms, nighttime lighting, heat plumes, inadequate prescribed fires, and increased vessel traffic."*
- *Comment 2: "The EIS labels many wildlife impacts as 'less than significant,' but admits that repeated sonic booms, noise, emissions, beach closures, vessel operations, and debris may increase exposures over time affecting nesting behavior, foraging, marine mammal hearing, and shoreline habitat."*
- *Comment 3: "The DEIS conclusion of 'no significant impact' does not evaluate how sonic boom frequencies may disrupt communication, alter spawning behavior, impact nesting success or diminish reproductive success of federally protected species."*
- *Comment 4: "In close proximity to the beach (~600 feet), LC-39A's lighting for construction and Starship-Super Heavy activities (including night launches) presents a high risk for turtle exposure and disorientation during nesting and hatching."*
- *Comment 5: "Provide species-specific impact assessments including nesting success, hatchling survival, foraging displacement, and behavioral stress for listed species, over multi-year projections."*
- *Comment 6: "The DEIS does not provide a comprehensive evaluation of how the project construction, proposed launch/landing cadence, and related activities will impact critical habitat and key species.*

The areas surrounding the KSC and LC-39A warrant more detailed assessment, protections, and monitoring plans to reduce harms from the proposed action."

Response: EIS Section 3.8, *Biological Resources*, addresses potential effects to protected species, critical habitat, and general plants and wildlife. Pursuant to the ESA, NASA and the FAA consulted with the USFWS and the National Marine Fisheries Service (NMFS) regarding potential effects on critical habitat and threatened and endangered species, including marine mammals. A Biological Opinion was issued by USFWS on October 20, 2025, to conclude ESA Section 7 obligations, and an Incidental Harassment Authorization was issued by NMFS pursuant to the Marine Mammal Protection Act (see EIS Appendix B, *Regulatory Consultations*, for the documentation). The FAA also conducted an Essential Fish Habitat (EFH) consultation with NMFS. The FAA determined the Proposed Action would not result in an adverse effect to EFH (see EIS Appendix B). SpaceX will implement all required mitigations, including updating and applying the LC-39A Lighting Operations Manual to minimize impacts on sea turtles and other nocturnal wildlife. NASA, in collaboration with SpaceX, the FAA, and the USFWS, will be developing monitoring plans to monitor the long-term effects of noise, sonic booms, and vibrations on federally threatened and endangered species (refer to the USFWS Biological Opinion for more information). In addition, an agreement between NASA, MINWR, and CCSFS is in place to ensure prescribed burning can still occur as necessary on MINWR. These measures support the conclusion of no significant impact with mitigation.

Responses to specific, substantive comments regarding this issue area are provided in the Comment Response Matrix provided at the end of this section.

A.2.2.10 Water Resources (Issue ID 12)

Commenters raised concerns about the FAA's ability to assess environmental impacts of the deluge system without specific operational details. Concerns included the large water volume required for the system and its potential effects on surrounding communities. Commenters argued that standard stormwater design is insufficient to prevent surface water impacts and expressed worries about water pollution, runoff, and ecological health in the Indian River Lagoon. They requested a spaceport-wide stormwater management plan and suggested using natural wetlands to filter and retain freshwater runoff. Additional context was requested regarding impacts to estuary waters and mangrove swamps beyond the LC-39A boundary.

Representative Comments: The following are representative comments in the Water Resources category:

- *Comment 1: "According to the DEIS, the 'deluge and diverter system and associated operational parameters' remain in a design phase and 'specific details are unknown.' The lack of specifics regarding how the system will operate to manage deluge operations presents a concern for full and appropriate assessment of contaminant risk given the significant volume of water required."*
- *Comment 2: "It is imperative that there are realistic plans on how to manage fresh water for the N. Brevard launch system including water for domestic purposes in the surrounding communities."*
- *Comment 3: "The DEIS concludes that standard stormwater design is sufficient to prevent surface water impacts. However, this does not account for: Ongoing nutrient impairments in receiving waters, which are subject to Total Maximum Daily Loads (TMDLs) under federal and state laws; [or] increased frequency and intensity of extreme rainfall events as well as rising groundwater levels, each of which can overwhelm stormwater infrastructure, causing pollutant pulses and salinity shocks in the estuary."*

- *Comment 4: "[T]he EIS should include a requirement that any associated construction use Low Impact Development to reduce stormwater runoff into the [Indian River Lagoon]."*
- *Comment 5: "A spaceport-wide stormwater management plan must be developed."*
- *Comment 6: "A Spaceport-wide hydrology study should be conducted to determine the best use of natural wetlands for filtering and retaining freshwater runoff. The proliferation of new impervious surfaces such as rooftops, concrete pads and parking lots will result in billions of gallons of freshwater discharging into the [Indian River Lagoon] estuary, where it dilutes salinity and inhibits seagrass growth."*

Response: EIS Section 3.9, *Water Resources*, addresses water resources, to include surface water, ground water, wetlands, and floodplains. As noted in EIS Section 1.8, *Incomplete or Unavailable Information*, the site plan presented in Figure 2.1-11 is notional; a detailed, validated site plan is unavailable at this time. A validated site plan is essential to ensure facilities fit within the LC-39A footprint, meet necessary setbacks, and calculate the acreage of newly developed or impervious areas to assess potential habitat loss. Since exact siting is still in process, the FAA used a notional site plan and GIS data to analyze potential effects from ground disturbance and facility presence, assuming all development occurs within LC-39A's fence line. KSC is required to implement the Low Impact Development directive outlined in Unified Facilities Criteria 3-210-10, as it is a Federal facility under section 438 of the Energy Independence and Security Act, which mandates compliance with stormwater requirements for Federal projects. A Clean Water Act Section 402 (National Pollutant Discharge Elimination System) permit from Florida Department of Environmental Protection (FDEP) will be required for both construction and for any stormwater discharges during operations. If a validated site plan is confirmed post-Final EIS, additional NEPA analysis may be required if it is not within the scope of analysis provided in this EIS. KSC manages stormwater through a comprehensive system detailed in its Kennedy NASA Procedural Requirements (KNPR 8500.1), requiring permits and systems for new impervious surfaces and land disturbances to control runoff and maintain water quality; an Environmental Resource Permit stormwater permit will be required for changes (increase or decrease) in ground cover, stormwater flow patterns, or impervious area; deluge ponds and stormwater systems will be designed per Saint John's River Water Management District permitting requirements.

The Indian River Lagoon faces water quality degradation primarily due to nutrient pollution from human sources like leaking sewage systems, agricultural runoff, fertilizers, and natural legacy loads. Pollutants from stormwater include fertilizers, sediments, pesticides, oils, pet waste, and trash, which drain untreated into the lagoon. While atmospheric nitrogen deposition contributes significantly to nitrogen levels, nitrogen oxides (NO_x) emissions from the Proposed Action represent only 4 percent of Brevard County's total emissions and are unlikely to significantly affect nitrogen concentrations in local waters when taken in context.

Responses to specific, substantive comments regarding this issue area are provided in the Comment Response Matrix provided at the end of this section.

A.2.2.11 Coastal Resources (Issue ID 13)

Commenters expressed concern related to impacts on Cape Canaveral barrier island ecosystems.

Representative Comments: The following comments are representative of the comments in the Coastal Resources category:

- *Comment 1: "Coastal upland habitats: Cape Canaveral barrier island ecosystems already show habitat conversion, dune retreat (40-50 m [meters]) since 2010), and wetland loss (particularly surrounding LC39A). SSH [Starship-Super Heavy] launches will compound these shifts through noise, traffic, weights, agitation, heat, and debris risks."*
- *Comment 2: "The DEIS also enumerates a range of impacts for coastal resources in the Atlantic Ocean but does not provide comprehensive evaluation of the risks or the plan for monitoring and mitigating observed harms…. More detailed evaluation of the expected frequency and detrimental effects of vehicle debris and contaminants in the ocean and on the beach is warranted due to the launch cadence proposed at KSC."*

Response: Potential effects to habitats and wetlands associated with the Proposed Action are discussed in EIS Section 3.8, *Biological Resources*, and Section 3.9, *Water Resources*, respectively. For the Proposed Action, a Coastal Consistency Determination was submitted to the FDEP Office of Intergovernmental Programs State Clearinghouse as part of this EIS in accordance with 15 CFR Part 930, Subpart C (see EIS Appendix B, *Regulatory Consultations*, Section B.5, *Coastal Consistency Determination*). The FDEP informed the FAA that the Proposed Action is consistent with Florida's Coastal Zone Management Program (see EIS Appendix B.5).

A.2.2.12 Air Quality (Issue ID 14)

Commenters expressed concerns about the impacts of increased rocket launches on local and regional air quality, particularly the DEIS's limited consideration of atmospheric nitrogen deposition and its effects on sensitive ecosystems like the Indian River Lagoon. Commenters called for air dispersion modeling to assess cumulative effects of pollutants such as NO_x, particulates, and ozone, including baseline data, seasonal variations, and localized modeling to evaluate risks to vulnerable populations. Commenters raised concerns about fine particulate matter, acid rain, and cumulative impacts from multiple launch providers. Commenters criticized the DEIS for relying on nominal operation scenarios and lacking detail on failure modes, monitoring equipment calibration, and independent peer review. Recommendations included air quality modeling and continuous air quality monitoring, certified low-emission engines, and mitigation strategies to protect environmental and public health. Transparency, public reporting, and adaptive management were emphasized, with calls for commitments to ongoing monitoring and responsive actions if air quality thresholds are exceeded.

Representative Comments: The following are representative comments in the Air Quality category:

- *Comment 1: "While the DEIS addresses NO_x as a criteria pollutant for ambient air standards, it overlooks atmospheric nitrogen deposition as a primary driver of water quality degradation in the surrounding, nutrient-impaired, Indian River Lagoon."*
- *Comment 2: "The EIS should include quantitative modeling of ground-level concentrations of exhaust constituents, including nitrogen oxides (NO_x), carbon monoxide, particulate matter, and any hazardous air pollutants generated during nominal and off-nominal launches."*
- *Comment 3: "The City strongly urges the FAA to require localized air-dispersion modeling to determine whether these emissions would cause or contribute substantially to an air quality violation."*

- *Comment 4: "The NPS recommends that FAA provide additional information on emissions associated with the proposed action, including (1) detailed descriptions of how rocket emission estimates were derived and (2) additional information on emission sources that were excluded from the emission calculations."*
- *Comment 5: "Pursuant to 42 U.S.C. § 4332(C)(i), NEPA requires 'a detailed statement by the responsible official on reasonably foreseeable environmental effects of the proposed agency action.' The draft EIS mentions the project's use of 'products containing hazardous materials, including paints, solvents, oils, lubricants, acids, batteries, fuels, surface coating, and cleaning compounds,' and discusses usage of diesel-powered construction equipment, all potential sources of hazardous air pollutants (HAPs). The final EIS should evaluate the amount of HAPs emitted by the construction and operation of the project and discuss their environmental impact (42 U.S.C. § 4332(C)(i))."*

Response: EIS Section 3.11.4, *Air Quality*, *Environmental Consequences*, analyzes the potential air emissions associated the Proposed Action utilizing standard air emissions analysis protocols. Appendix C, *Resource Area Supporting Information*, provides detailed information regarding emissions factors and modeling results. Air quality modeling for anomalies is not included in the EIS as anomalies are rare and the number and type cannot be predicted. Effects on water quality are addressed in the *Water Resources* section (Section A.2.2.10, *Water Resources (Issue ID 12)* above). The U.S. Environmental Protection Agency (USEPA) uses 3,000 feet above ground level as the nominal maximum height for assessing aircraft emissions' contribution to ground-level air quality, and this approach was adopted for the Proposed Action emissions analysis. KSC operates under a Clean Air Act Title V Operating Permit, requiring annual inventorying, monitoring, and recordkeeping of substantial stationary air emission sources like boilers and generators. Emissions from the planned methane liquefaction plant will undergo permitting through FDEP to ensure compliance with air quality regulations and avoid exceeding National Ambient Air Quality Standards. HAPs are acknowledged but not analyzed in detail due to the lack of regional standards and project-level thresholds, as they are regulated under USEPA's National Emission Standards for Hazardous Air Pollutants

Responses to specific, substantive comments regarding this issue area are provided in the Comment Response Matrix provided at the end of this section.

A.2.2.13 Climate (Issue ID 15)

Commenters referenced the DEIS statements related to large storms and sea level rise. A commenter recommended new infrastructure to address anticipated sea level rise.

Representative Comments: The following are representative comments in the Climate category:

- *Comment 1: "At Page 3-191 it is stated that 'It is assumed that proper planning and design would ensure that any new infrastructure would be designed for the appropriate level of flood risk…' Given the DEIS relies on this assumption, it would be appropriate for approval to include enforceable conditions ensuring that new infrastructure is designed to accommodate reasonably anticipated sea level rise."*

Response: Per FAA guidance in FAA Order 1050.1F, EIS Section 3.12.4.2.3, *Climate*, *Reasonably Foreseeable Effects*, addresses potential effects from climate change. Greenhouse gases (GHGs) are nonhazardous to health at normal ambient concentrations and can only potentially cause warming of the

climatic system at a cumulative global scale. Therefore, the action-related GHGs have no significant effect on local air quality. However, from a global perspective, individual actions with GHG emissions such as this each make a relatively small addition to global atmospheric GHG concentrations that collectively may have a large effect on climate change. Project GHG emissions, in combination with GHG emissions from reasonably foreseeable actions identified would result in effects on climate change. As identified in Section 3.12.4, *Climate, Environmental Consequences*, climate change could affect implementation of the Proposed Action at KSC and the adaptation strategies needed to respond to future conditions. Operations at KSC have adapted to their changing climate. However, exacerbation of these conditions in the future could impede proposed activities during extreme events. The FAA, NASA, and the DAF have developed measures to adapt to future climatic events and therefore to make facilities more resilient to future climate effects; these include design considerations to minimize potential flooding effects. Implementation of these measures would mitigate the effects of climate change to the Proposed Action, as well as other reasonably foreseeable actions.

Responses to specific, substantive comments regarding this issue area are provided in the Comment Response Matrix provided at the end of this section.

A.2.2.14 Hazardous Materials and Hazardous Waste (Issue ID 16)

Commenters expressed concerns about hazardous substances associated with Starship launches, including debris from rocket malfunctions and fuels like nitromethane, monomethylhydrazine, and nitro tetroxide. They recommended additional review and detailed emergency response plans for accidental releases of polluting substances.

Representative Comments: The following are representative comments in the Hazardous Materials and Hazardous Waste category:

- *Comment 1: "The plan for SpaceX to maintain an internal emergency response team for hazardous material releases lacks clarity on federal oversight, response standards, or transparency for public safety."*
- *Comment 2: "Detail is lacking with regard to the methodologies to be utilized in the event of a launch failure that casts debris over the wetland and terrestrial areas to the north, south and west of LC-39A. While there is an extensive discussion of debris recovery downrange over the open ocean, the logistics of reaching a debris field inland from the beach to conduct "appropriate cleanup measures" are not well described."*
- *Comment 3: "The storage and transportation of MASS AMOUNTS OF ROCKET FUEL in the vicinity of hundreds of rocket launches per year creates the risk of enormously destructive explosions. Unfortunately, we are aware of the launch industry history: Infrequent but potentially devastating rocket explosions. This requires detailed study, planning, and preparedness. Where is that analysis and mitigation plan?"*
- *Comment 4: "In your environmental analysis, have you considered the effect of hypergolic propellants on the Starship vehicle? Specifically, monomethylhydrazine, nitrogen tetroxide, two very highly toxic substances that are mandatory for maneuvering in space."*

Response: EIS Section 3.13, *Hazardous Materials, Solid Waste, and Pollution Prevention*, addresses hazardous materials and solid waste, including debris. Unlike solid rocket propellants used in past

programs (for example, Space Shuttle), Starship uses oxygen and methane, which are naturally occurring in the environment and do not produce toxic chemicals. As noted in EIS Section 3.13, the KSC facility-wide Spill Prevention, Control, and Countermeasure (SPCC) Plan (KSC-PLN-1919) and the KSC site-specific plan (KSC-PLN-1920) outline the criteria established by KSC to prevent, respond to, control, and report spills of oil. Various types and quantities of oil are stored, transported, and handled to support the operations of KSC. The KSC SPCC Plan describes both the facility-wide and site-specific approaches for preventing and addressing spills. In addition, the SpaceX Emergency Action Plan describes procedures relating to spills and toxic releases at LC-39A. All these plans are written to USEPA and state requirements. In addition, the Resource Conservation and Recovery Act (RCRA) imposes stringent requirements on the handling, management, and disposal of hazardous waste, especially in comparison to requirements for nonhazardous wastes. As both KSC and SpaceX are designated as Large Quantity Generators of hazardous waste, both are required by USEPA, under RCRA, to develop and maintain a written contingency plan to minimize harm from fires, explosions, or releases of hazardous waste, and must submit this plan and a quick reference guide to local authorities. The plan requires detailed arrangements with local responders, a trained emergency coordinator, specified emergency equipment, and clear procedures for emergency response and personnel training (see 40 CFR § 262.262).

Responses to specific, substantive comments regarding this issue area are provided in the Comment Response Matrix provided at the end of this section.

A.2.2.15 Pollution Prevention (Issue ID 18)

Referring to pollution of waterways, commenters called for additional assessment of stormwater management systems and ecological exposure modeling.

Representative Comments: The following are representative comments in the Pollution Prevention category:

- *Comment 1: "The DEIS review and subsequent planning would benefit from more data and specific analysis of stormwater containment and treatment as well as system capacity to handle storm and increased rainfall events in the region."*
- *Comment 2: "Provide ecological exposure modeling: what levels of pollutants might accumulate in soils, water bodies, or biota under repeated launches over many years; what thresholds of pollutant concentration are considered safe for listed species; what margin of safety is built in?"*
- *Comment 3: "We are experiencing impacts from the increased launches that have occurred to this point that were not considered in previous Environmental Impacts Assessments. So we're still catching debris from the bottom of the ocean."*

Response: Potential effects to the natural environment are addressed throughout the EIS in various resource-related sections (e.g., Section 3.8, *Biological Resources*, and Section 3.9, *Water Resources*). As noted in Section 3.13.4, *Hazardous Materials, Solid Waste, and Pollution Prevention, Environmental Consequences*, SpaceX would be responsible for cleanup on land associated with solid wastes generated by its operations. Most materials deposited in the water would sink rapidly in the water column while some items may remain buoyant before sinking. Liquid methane is not toxic but poses risks such as asphyxiation, frostbite, and burns due to its cryogenic nature and rapid vaporization. Liquid oxygen also presents physical harm from its cryogenic properties and physiological effects from high concentrations.

In the event of a non-combustible anomaly, risks are highest near the release point, where personnel and the public would not be present. Liquid oxygen and methane are unlikely to contaminate drinking water harmfully, as they vaporize or disperse quickly. Starship-Super Heavy is primarily constructed of inert stainless steel and silica-based heat tiles, which are non-toxic and resistant to degradation. Small amounts of hydraulic fluid onboard may ignite, remain contained, or be released during an anomaly. In the event of a spill of "other hazardous materials" SpaceX Emergency Action Plan procedures are as follows:

1) At LC-39A, the SpaceX Environmental Health and Safety Manager is the Emergency Coordinator until the Fire Chief arrives (if required).

2) As acting Emergency Coordinator, the Environmental Health and Safety Manager will perform the following actions (as applicable) in the event of a fire, explosion, or release of hazardous waste or hazardous waste constituents, which could threaten human health or the environment: activate internal facility alarms or communication systems, where applicable, to notify all facility personnel; and notify appropriate state or local agencies with designated response roles if their help is needed.

Responses to specific, substantive comments regarding this issue area are provided in the Comment Response Matrix provided at the end of this section.

A.2.2.16 Transportation (Issue ID 21)

Commenters raised concerns about the impacts of rocket launches on transportation industries, including airline travel, cruise lines, shipping lines, and road travel. They highlighted navigational delays from launches and booster landings, economic costs to transportation industries, and disruptions to national airspace, air traffic, and airport operations. Specific concerns included flight delays, increased fuel costs, rerouting, schedule breakdowns, and reduced efficiency of the National Airspace System (NAS) due to Traffic Management Initiatives. Commenters noted affected airspace in regions such as Central America, Mexico, Florida, the Bahamas, and Canada, and urged the FAA to evaluate cumulative effects, including airport-specific impacts and economic costs. They requested cost modeling, analysis of general aviation aircraft affected, and collaboration with SpaceX to define airspace restriction parameters. Concerns were also raised about maritime traffic disruptions, including cruise ship operations and shipping schedules, and commenters asked whether improvements to state roads would be made to address increased traffic from the Proposed Action.

Representative Comments: The following are representative comments in the Transportation category:

- *Comment 1: "Which airlines, airport authorities, port operators, cruise lines, shipping companies, and international trade partners have been identified as potentially affected by future airspace or maritime closures caused by Starship-Super Heavy operations at LC-39A?"*
- *Comment 2: "The draft EIS does not sufficiently evaluate these cumulative potential disruptions or identify specific ways to reduce their effect on our residents, visitors, and Port Canaveral operations."*
- *Comment 3: "Airspace closures cause aviation delays at the major and smaller airports and airways that are already experiencing increasing flight delays and cancellations. The draft EIS does not include cost modeling and impacts of the airport/air travels."*

- *Comment 4: "The disruptions will disproportionately affect AVA's* [Association of Value Airlines] *airlines and passengers, causing increased fuel costs, rerouting complications, schedule breakdowns and cancellations, while passengers will endure extended delays and missed connections."*
- *Comment 5: "Our principal concern is with the substantial—and we believe significant—level of aviation delay and disruption that will be associated with Starship Super Heavy launch, booster landing, and Starship reentry and landing activities. Based on delay data that the FAA provides in Tables 3.16-6 and 3.16-7 of the draft EIS, the 44 Starship Super Heavy launches, booster rocket landing, and Starship reentry and landing operations presumed in the draft EIS would result in substantial delays—ranging between 40 and 120 minutes to between 12,000 and 23,000 commercial aircraft operations per year."*
- *Comment 6: "What is the projected impact on cruise ship operations, port cargo throughput, shipping schedules, and maritime traffic? Will ships have to idle, reroute, or be delayed? What costs are borne by companies, workers, and consumers?"*

Response: EIS Section 2.1.3 and Section 3.16, *Transportation*, discuss advance notice (Notices to Airmen, maritime advisories, etc.) requirements, while EIS Section 3.16 addresses potential effects to maritime, air, and roadway traffic. All airlines, airport authorities, port operators, cruise lines, shipping companies, and international trade partners that utilize transportation routes identified in the EIS are potentially affected.

As noted in EIS Section 3.16.4.2.2, *Transportation, Operation*, integrating Starship-Super Heavy launch operations from KSC LC-39A, Super Heavy booster landings, and Starship reentries into the NAS would require the FAA to conduct ground stops commensurate with the timing of the Aircraft Hazard Area (AHA) and 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 launch/landing and reentry 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.

The FAA would manage Starship-Super Heavy operations in a way that minimizes disruption to existing aviation operations and ensures safety for all airspace users. Successful integration requires close collaboration between space operators, the FAA, commercial airlines, general aviation, and defense stakeholders. Key factors contributing to feasibility include enhanced real-time communication systems and well-defined scheduling and deconfliction procedures. Although temporary airspace closures may impact other stakeholders, mitigation strategies such as pre-coordinated reroutes, dynamic scheduling, and time-based traffic flow management could reduce operational burdens. The FAA will work with SpaceX and the aviation industry to minimize operational impacts to the aviation industry from Starship-Super Heavy launches and reentries. EIS Section 3.16.4.2.2, *Transportation, Operation*, has been updated to provide more information regarding these potential effects.

EIS Section 3.4.4.2.2, *Socioeconomics and Children's Environmental Health and Safety Risks, Operation*, acknowledges that Starship-Super Heavy operations would affect maritime activities, including delays, reroutes, and cancellations. The Port of Canaveral coordinates launch schedules with cruise ship departures and other port operations, such as activities involving tugs and cargo ships, to minimize disruptions. Collaboration with NASA and CCSFS is essential for managing these impacts. Quantifying the economic effects of launch activities would require a comprehensive business case analysis, which is beyond the scope of the EIS.

Responses to specific, substantive comments regarding this issue area are provided in the Comment Response Matrix provided at the end of this section.

A.2.2.17 Utilities and Infrastructure (Issue ID 22)

Commenters raised concerns about the impacts of rocket launches and landings on municipal infrastructure, including pipes, stormwater systems, and wastewater infrastructure. They recommended that the FAA evaluate the demand on shared and regional infrastructure and compare it to other capacity needs. Concerns were expressed about the use of large amounts of potable water for the deluge system, potentially affecting the public water supply. In addition, commenters highlighted issues with wastewater infrastructure, including emergency overflow procedures, treatment capacity, and the discharge of wastewater into the surrounding environment.

Representative Comments: The following are representative comments in the Utilities and Infrastructure category:

- *Comment 1: "The City is also concerned about the reasonably foreseeable effects of repeated heavy-lift launches, landings, and sonic booms on Cape Canaveral's aging municipal infrastructure."*
- *Comment 2: "AIA [Aerospace Industries Association] recommends that FAA, in coordination with NASA and the DAF, include in the Final EIS an evaluation of system-wide demand of shared and regional infrastructure."*
- *Comment 3: "Where will the additional water come from to make up for the 92% loss for future test and launches? If from public water supplies, how will that impact their operations and the aquifer?"*
- *Comment 4: "A recent Starship Super Heavy FAA fact sheet (page 6) states that a Starship Super Heavy launch requires one million gallons of deluge water per launch, culminating in a total of 120 million gallons annually at Cape Canaveral Spaceport. This estimate does not include water consumed in the preparation of the Starship or washdown after recovery. The City of Cocoa has agreed to supply the Spaceport with potable water, however its finite water source may not support the 120 million gallon annual consumption rate required to launch and land Starship Super Heavy."*
- *Comment 5: "The EIS claims 2800 gallons per hour total wastewater generation (800 for methane, 2000 for LOX [liquid oxygen] and LN2 [liquid nitrogen])….How does SpaceX plan to handle the remaining wastewater without discharging it? Will they really truck out that much water?"*
- *Comment 6: "And now there is twice as many launches as there was then, so I am wondering between all of those launches and the Starship launches, like what is going to happen to the wastewater?"*

Response: Section 3.17, *Utilities and Infrastructure*, of the EIS addresses infrastructure and utilities, while Section 3.14, *Natural Resources and Energy Supply*, addresses electricity and natural gas requirements. The project will utilize existing utility systems, which have sufficient capacity, and deluge will be retained and treated onsite. Operational water requirements are within the City of Cocoa's permitted availability, with the Proposed Action increasing the city's usage by approximately 3.6 percent, well within current and projected capacity. No new utilities development outside KSC is required, and NASA and SpaceX will coordinate with local municipal utility providers to ensure infrastructure and capacity are not adversely affected. As discussed in EIS Section 3.9, *Water Resources*, SpaceX must obtain and comply with permits for stormwater and industrial wastewater management. Evaluation of the range's ability to accommodate users is conducted by range management entities and is outside the scope of the EIS.

Responses to specific, substantive comments regarding this issue area are provided in the Comment Response Matrix provided at the end of this section.

A.2.2.18 Health and Safety (Issue ID 23)

Commenters raised concerns that the DEIS failed to adequately address the impacts of the Proposed Action on human health and safety, particularly for vulnerable populations. Concerns included decreased quality of life, sleep disturbances, and exposure to debris-related hazards. Commenters called for further evaluation of impacts on emergency response and essential public services, as well as the risks associated with launch anomalies. Specific concerns included explosion damage to residential areas, contamination of fish and wildlife, human injury from fallen debris, and damage to beaches. In addition, commenters noted that the DEIS did not consider the failure rate history of previous Starship-Super Heavy launches.

Representative Comments: The following are representative comments in the Health and Safety category:

- *Comment 1: "The health and well-being of the residents would be negatively impacted by the launches. Such negative impacts include, but are not limited to: significant sleep disruptions beyond what is already occurring with the current launch schedule, cardiovascular risks, trauma risks, depression and anxiety caused by launches at any time day or night. Chemical or physical fallout from the launches pose a hazard, too. Furthermore, the damage to the environment could result in residents not being able to get out into one of the most proven ways of relieving depression, anxiety: going out into nature. The launches and resulting noise could also significantly and negatively affect local residents with (had to remove) and other health conditions."*
- *Comment 2: "Federal environmental review is obligated to assess disproportionate impacts on vulnerable populations. Without explicit toxic human health analysis, the EIS fails to determine whether nearby communities—many of which include older adults, children, and lower-income populations—may be disproportionately affected."*
- *Comment 3: "The draft fails to adequately take into account, the high failure rate of this spacecraft."*
- *Comment 4: "The environmental hazard in the region will include potential rocket debris that falls all over our beautiful beaches and potentially injures potentially local residents or tourists."*
- *Comment 5: "Currently, the DEIS acknowledges that debris and hazardous materials could be distributed due to launch failures, but focuses primarily on recovery in downrange ocean areas, does not provide a debris distribution map, nor an analysis of noise and vibration effects, water or air pollution impacts, due to an 'off-nominal event,' beyond stating that 'noise levels that could be generated by an off-nominal event would depend on the details of the event (e.g., location and type of rocket failure)."*

Response: On January 20, 2025, President Trump issued Executive Order (E.O.) 14148, *Initial Rescissions of Harmful Executive Orders and Actions*, rescinding E.O. 14096, *Revitalizing Our Nation's Commitment to Environmental Justice for All* (2023). E.O. 14096 supplemented E.O. 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations* (1994), establishing a government-wide mandate to advance environmental justice. As a result, the FAA no longer evaluates environmental justice as a part of its NEPA reviews. Thus, this EIS does not include any discussion of environmental justice, and environmental justice will not be considered by the FAA in its decision-making.

While a specific toxic human health analysis is not conducted, the EIS does address potential children's environmental health and safety risks in EIS Section 3.4.4, *Socioeconomic and Children's Environmental Health and Safety Risks, Environmental Consequences*. EIS Section 3.18, *Health and Safety*, includes consideration for activities, occurrences, or operations that have the potential to affect the safety, well-being, or health of members of the public and employees based on the analyses presented under *Noise and Noise-Compatible Land Use* (Section 3.2), *Air Quality* (Section 3.11), *Water Resources* (Section 3.9), and *Hazardous Materials, Solid Waste, and Pollution Prevention* (Section 3.13). Additional text has been added under EIS Section 3.18 that provides further clarification of the health effects associated with sleep disturbance to the general population, which includes the elderly.

Under 51 U.S.C. Subtitle V, Chapter 509, the FAA licenses or permits commercial space launch and reentry operators and sites, ensuring safety criteria are met and addressing public safety risks, and public notifications of launch and landing activities are provided in advance of each event. Health and safety risks for each rocket launch and reentry project are evaluated separately, with safety managed by the FAA, NASA, CCSFS, United States Coast Guard, and SpaceX. SpaceX's license application must meet FAA safety, risk, and financial responsibility requirements under 14 CFR Chapter III. NEPA does not require worst-case scenario analyses, but operational contingencies like Emergency Response Plans are in place to address off-nominal events. Human toxic exposure risks are low, as plumes from launches and landings dissipate quickly, and infrastructure like flame diverters minimizes effects. Standard Operating Procedures and management plans prevent spills and environmental exposure, ensuring no public exposure to toxic vapors or chemicals under nominal operations. The EIS evaluates health and safety risks using standard practices for air emissions modeling, hazardous materials management, and pollution prevention; additional information regarding health effects associated with noise (e.g., sleep disruptions) has been added to the Final EIS (see Section 3.2, *Noise and Noise-Compatible Land Use*, and Section 3.18, *Health and Safety*). SpaceX must retrieve and clean up debris from its operations, and anomalies are not expected events. Events associated with Starship-Super Heavy at Boca Chica are not comparable; Boca Chica is a test and development site. SpaceX's license application or license modification must meet FAA safety, risk, and financial responsibility requirements under 14 CFR Chapter III, Subchapter C, before the Starship-Super Heavy vehicle can operate at LC-39A; therefore, the FAA asserts that anomalies are not expected events (by definition an anomaly is something that deviates from what is normal, expected, or common, serving as an exception, irregularity, or deviation from a rule or pattern). Regarding debris, SpaceX would be required to retrieve/clean up debris associated with its operations.

Responses to specific, substantive comments regarding this issue area are provided in the Comment Response Matrix provided at the end of this section.

A.2.2.19 Mitigations (Issue ID 24)

Commenters recommended various mitigation measures to address potential impacts of Starship-Super Heavy launches on communities, local economies, and the environment. Suggestions included damage reimbursement, environmental protections, and community impact mitigation. Specific measures recommended included adaptive strategies to monitor noise, vibration, light, and stormwater overflow; rescheduling launch times; building access roads; monitoring atmospheric deposition rates, air pollutant emissions, and water pollution; tracking fish, turtle, and bird reproductive behaviors; adaptive fire management plans; property damage mitigation; and debris cleanup. Commenters emphasized corporate responsibility and compensation mechanisms to support affected local economies, fishermen,

homeowners, and communities. Additional recommendations included minimizing impacts to airport operations, coordinating with park managers to reduce closure durations, collaborating with other space operators, and defining measurable thresholds and performance indicators.

Representative Comments: The following are representative comments in the Mitigations category:

- *Comment 1: "Compensation or Restitution Mechanism – Establishment of a community claims fund for residents whose properties suffer structural damage or property value loss tied to launch operations."*
- *Comment 2: "Establish adaptive design thresholds and an annual review process to evaluate up-to-date rainfall and runoff trends, with authority to require science-based retrofits or enhancements based on observed performance and ecosystem needs."*
- *Comment 3: "If SpaceX wants to launch here, they should be required to compensate residents for impacts, including replacing older windows that will rattle and degrade from repeated launches. This creates real maintenance costs for homeowners like me."*
- *Comment 4: "I recommend that launches should be scheduled to avoid the 1-4 AM hours when possible, and that educational programs be developed alongside launch activity to turn potential disruptions into learning opportunities. By balancing safety, student well-being, and educational engagement, the growing space interest can benefit both the community and future generations."*
- *Comment 5: "Additionally, we concur with the multiple statements made that SpaceX, a for-profit company, should exercise their corporate social responsibility and significantly invest in the communities and environments where it operates."*
- *Comment 6: "This includes the corporate civic responsibility of establishing and maintaining an emergency relief fund for damages incurred by landings and takeoffs, with reimbursements occurring in a timely and non-bureaucratic manner, as suggested by many of the participants at the virtual EIS meeting (September 3, 2025)."*

Response: Mitigations and monitoring activities currently under consideration are reflected in the EIS *BMPs, Mitigation, and Monitoring* section for each resource area; mitigation and monitoring activities intrinsically include adaptive management to evaluate these activities and adjust as necessary to ensure effective mitigation and monitoring techniques. The FAA considered all mitigations suggested by the public and agencies during the DEIS review process as part of the decision-making process. The FAA's Record of Decision identifies all required mitigations. Readers should note that resolving conflicts between range users is outside the scope of the NEPA process and must be addressed through range management and scheduling processes. Mitigation of any damage to historic structures is handled under the NHPA Section 106 Programmatic Agreement, which was developed in consultation with the Florida SHPO and other parties, as detailed in Appendix B, *Regulatory Consultations*, of the EIS. Measures to avoid or minimize potential effects to protected species are outlined in the ESA and Marine Mammal Protection Act consultation documents in EIS Appendix B and incorporated into the Record of Decision. Mitigation commitments in the Record of Decision would be a term and condition of a vehicle operator license. Regulation of insurance companies and lawmaking in Florida are beyond the FAA's and NASA's purview. Property owners can contact SpaceX (insurance@spacex.com) to submit property damage claims, but SpaceX does not compensate for insurance rate increases, which are determined by actuaries and influenced by various factors.

Responses to specific, substantive comments regarding this issue area are provided in the Comment Response Matrix provided at the end of this section.

A.2.2.20 Other Topics/Miscellaneous (Issue ID 25)

Comments in this issue category collectively emphasize the need for the EIS to address cumulative impacts from the proposed Starship-Super Heavy operations at LC-39A and LC-37, alongside other ongoing and planned launch activities at KSC and CCSFS. Commenters highlight the need to analyze the combined effects of noise and vibration from multiple launch sites, which could result in near-daily disruptions for local communities. Concerns were raised about cumulative pollutant accumulation in soils, water bodies, and biota, as well as the long-term impacts on fragile ecosystems like the Indian River Lagoon from all activities in the area. The comments call for a comprehensive evaluation of impacts on local infrastructure, transportation systems, and socioeconomic factors, including effects on airports, maritime activities, and the fishing economy from cumulative actions. Commenters urge the FAA to assess how repeated high-frequency launches may disproportionately affect low-income and health-burdened communities, such as those in Titusville. The EIS was criticized for evaluating LC-39A operations in isolation, without accounting for overlapping activities from Falcon 9, Blue Origin, and other providers, which could lead to significant cumulative impacts. The EIS was also seen as relying on outdated data and failing to incorporate forward-looking forecasts to account for growth in aviation demand and launch frequencies. Concerns were also raised about the cumulative degradation of air quality, increased toxic exposure, and diminished quality of life for residents due to noise, sonic booms, and infrastructure expansion. Overall, the comments call for a more robust and comprehensive cumulative impact analysis, including ecological, socioeconomic, and operational effects, to ensure informed decision-making and adequate protection for affected communities and environments.

Representative Comments: The following comments are representative of the comments in the Miscellaneous category:

- *Comment 1: "Cumulative launch activities: the proposed 44 Starship launches and landings are in addition to Falcon launches, potentially exceeding 1-- launches annually, plus landings. The draft EIS must address combined ecological and socioeconomic stress, not Starship alone."*
- *Comment 2: "How have cumulative impacts been modeled that include the already approved 120 Falcon 9 launches/year, plus potential Cape Canaveral Space Force Station Starship launches, plus LC-39A operations?"*
- *Comment 3: "The cumulative effects of these 240+ sonic booms per year, all generated by SpaceX, will significantly degrade the ability of other launch service providers like Blue Origin to accomplish their missions, in addition to putting pressure on environmental resources and nearby workers."*
- *Comment 4: "The DEIS, however, appears to evaluate launch activities in isolation rather than assessing their cumulative effect alongside weather events, security restrictions, and growing aviation demand in Florida. In addition, the EIS relies on static 2024 data, which does not adequately reflect the growth trajectory of our state's aviation. We urge the FAA to incorporate forward-looking forecasts (such as the Terminal Area Forecast) and to quantify the economic and operational impacts to the NAS, just as the EIS evaluated tourism-related impacts."*

- *Comment 5: "MDAD [Miami-Dade Aviation Department] requests the FAA to assess the potential operational and resulting environmental effects at airports in Florida associated with the reasonably foreseeable actions conducted by FAA to license and implement temporary airspace closures for up to a combined 759 launches and landings."*
- *Comment 5: "The DEIS's baseline data collection, modeling, monitoring, and field testing all appear to cover a limited time window and start/end dates are not clearly provided. Without long enough baseline periods, natural variability (weather, nesting/migration, daily temperature/humidity cycles) is likely underrepresented."*

Response: Applicable regulations historically required the consideration of cumulative impacts. In 2023, Congress passed the Fiscal Responsibility Act (Public Law 118-5), which directed agencies to consider "the reasonably foreseeable environmental effects of proposed agency actions" (42 U.S.C. § 4332(2)(C)). In addition, on May 29, 2025, the Supreme Court issued its decision in the case of *Seven County Infrastructure Coalition v. Eagle County*, 605 U. S. 975 (2025). As a result of these actions, it is no longer a legal requirement or the policy of the Federal government to conduct cumulative impact analyses. In addition, the Seven County ruling reinforced the limited scope of NEPA reviews, holding that NEPA does not require an agency to consider environmental effects of other activities and projects "separate in time or place" from the proposed action. Nevertheless, the *Reasonably Foreseeable Effects* in each section of the EIS addresses cumulative effects, to include potential effects associated with other launch activities, as appropriate. Actions included in the reasonably foreseeable effects analyses are discussed in EIS Section 2.2, *Proposed Action and Alternative, No Action Alternative*. To note, NEPA does not require extended speculation or worst-case scenario analyses. Operational contingencies (e.g., Emergency Response Plans) are in place to address off-nominal events and ensure public health and safety. Each resource section has a subsection titled *BMPs, Mitigation, and Monitoring* that identifies relevant best management practices (BMPs), mitigations, and monitoring activities under consideration. The final BMPs, mitigations, and monitoring activities to be implemented will be identified in the Record of Decision.

Responses to specific, substantive comments regarding this issue area are provided in the Comment Response Matrix provided at the end of this section.

A.2.2.21 Substantive Comment Response Matrix

Issue ID: 1	Issue Name: NEPA Process			
Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
Robyn Memphis	FAA-2024-1395-0088-0001	It is unbelievable the public has not been considered as a stakeholder.	NP-1	Stakeholders include Federal and state agencies; international, state, local governments, and organizations; and the interested and affected public. The FAA has invited public and agency participation in the NEPA process via the scoping process and the DEIS review and comment process. Section A.1 and Section A.2.1 provide detailed information regarding the public involvement process.
Anonymous	FAA-2024-1395-0281-0019	Only three in-person scoping meetings and one virtual meeting were held. Representation may not reflect the diverse communities most affected. How many people attended each meeting, and what city/town did they live in? Was the demographic representation sufficient to capture the views of all affected populations?	NP-1	See response NP-1.
Anonymous	FAA-2024-1395-0281-0054	At the public scoping meetings: how many attendees were there at each in-person meeting and the virtual meeting; where did they live; was the demographic/geographic representation sufficient to reflect all local populations that will be affected by beach closures (workers, residents, business operators)?	NP-1	See response NP-1.
Anonymous	FAA-2024-1395-0436-0008	At the public scoping meetings: how many attendees were there at each in-person meeting and the virtual meeting; where did they live; was the demographic/geographic representation sufficient to reflect all local populations that will be affected by beach closures (workers, residents, business operators)?	NP-1	See response NP-1.
Anonymous	FAA-2024-1395-0436-0054	Only three in-person scoping meetings and one virtual meeting were held. Representation may not reflect the diverse communities most affected.	NP-1	See response NP-1.

Issue ID: 1	Issue Name: NEPA Process			
Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
Anonymous	FAA-2024-1395-0436-0055	How many people attended each meeting, and what city/town did they live in? Was the demographic representation sufficient to capture the views of all affected populations?	NP-1	See response NP-1.
Anonymous	FAA-2024-1395-0445-0001	Brevard County residents are unaware of what is coming. Notification of and meeting times for both the PSFB and FAA meetings did not allow for strong attendance.	NP-1	See response NP-1.
Chere force	FAA-2024-1395-0114-0001	Playalinda Beach is not just a launch site buffer but it is a vital community space, ecological refuge, and cultural landmark that deserves fair treatment and continued access. It is unbelievable the public has not been considered as a stakeholder.	NP-1	See response NP-1.
Indian River Lagoon Roundtable	FAA-2024-1395-0277-0001	Stakeholders listed in this EIS do not include several key organizations, such as the U.S. Army Corps of Engineers, National Oceanographic and Atmospheric Administration, Space Florida, Florida Department of Environmental Protection, St. Johns River Water Management District, South Atlantic Fishery Management Council and the Indian River Lagoon National Estuary Program.	NP-1	See response NP-1.
Diane Campbell	PublicMeeting-082825-0017-0004	I have a grandson and I have other grandchildren, and this is going to destroy their future. It is unconscionable that the environmental, draft environmental statement had absolutely no real references to any kind of data from scientific experimentation. There was no references where who did it where, you know. I want to See the real science, it wasn't in any of this. And I did understand what the man in the White House just said about, you know, reducing environmental regulations on commercial launches.	NP-2	As required by NEPA, the EIS uses best available data and modeling to evaluate the potential effects of the Proposed Action. For example, noise analyses (EIS Section 3.2) utilizes established modeling programs to predict potential noise effects to structures and the local community. References utilized to support the analyses are provided in EIS Chapter 7.
Angelina Reddy	PublicMeeting-090325-0007-0003	We understand the NEPA evaluation process to encourage reusing similar assessments to save time in processing power, and we would appreciate a more	NP-3	EIS Table 1.7-1 (Documents Incorporated by Reference) lists those previous NEPA documents and associated analyses that were utilized to support the EIS. Additionally, cited

Issue ID: 1	Issue Name: NEPA Process			
Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
		direct reference to previous EIS's that were used in the research for this one when they were originally published and how many launches were within the scope of those previous analyses. We suspect that what may have constituted a FONSI in the past, that has now more than doubled its scope, would not result in a FONSI if the evaluation was done all over again.		materials utilized to support the analyses are provided in EIS Chapter 7. These documents were incorporated by reference; however, the EIS analyzes the impacts of this Proposed Action.
American Association of Nude Recreation-Florida Region	FAA-2024-1395-0169-0018	The data for Puerto Rico and the United States Virgin Islands also brings our concern that there were not physical meetings on the EIS in either of these locations. They will be directly impacted by the airspace and maritime restrictions if SpaceX expansion occurs.	NP-4	See NP-1. In addition, the FAA held two in-person public meetings on August 26, 2025, at KSC, Florida, two in-person public meetings on August 28, 2025, in Cape Canaveral, Florida, and one virtual meeting on Wednesday, September 3, 2025. For stakeholders who were not able to attend the in-person meetings, the virtual meeting was an option for the public to receive the same information provided during the in-person meetings and provided the opportunity for the public to submit a verbal public comment.
American Association of Nude Recreation-Florida Region	FAA-2024-1395-0169-0004	We are concerned that there were not physical meetings about the EIS in Puerto Rico or the US Virgin Islands. They will be directly impacted by the airspace and maritime restrictions if SpaceX expansion occurs.	NP-4	See response NP-4.
American Association of Nude Recreation-Florida Region	FAA-2024-1395-0169-0009	we are concerned that the public was not given the opportunity to make informed feedback on the EIS. It was not stated whether the 40+ additional take offs and landings are a maximum or a starting point for SpaceX, nor were there opportunities for questions and answers.	NP-5	See response NP-1 regarding opportunities for public involvement. Forty-four launches and associated landings are the current launch cadence addressed in the EIS. Should the Starship-Super Heavy operational concept evolve in the future to include more launches and landings than addressed in this EIS, additional NEPA review would be required.
Andrew Granston	FAA-2024-1395-0170-0001	My only comment is regarding Appendix D, Applicable Regulations by Resource Area, specifically Section D.6: Visual Effects. On page 2-8, Table D.6-1, Local Lighting Codes Applicable to Visual Resources Analysis, lists five (5) applicable lighting codes. The first four of these codes are publicly available. But the fifth code does not Seem to be publicly available. The unavailable fifth lighting code comes from SpaceX in a publication or	NP-6	The LC-39A LOM has not yet been updated to include Starship related infrastructure and operations. As stated in the EIS, SpaceX will work with NASA and the USFWS to update the LC-39A LOM. The LOM must be updated and approved prior to the start of Starship operations. The LOM will be made available after the update is approved by NASA and the USFWS.

Issue ID: 1	Issue Name: NEPA Process			
Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
		document titled "Lighting Operations Manual, SpaceX, Launch Complex 39A, Facility Number J8-1708." This LOM (Lighting Operations Manual) does not appear to be posted online. I have searched for "Kennedy Space Center, Lighting Operations Manual, SpaceX, Launch Complex 39A, Facility Number J8-1708" on Google and Yahoo. I have also searched the 2025 Draft EIS, and the 2019 EIS. There were no hits.		
Andrew Granston	FAA-2024-1395-0170-0003	SpaceX Has Made significant Efforts to Minimize its Impact on Sea Turtles At Starbase, SpaceX has done much to reduce the impact of Starship on sea turtles. Not to mention saving some from freezing to death. I'd guess that SpaceX will do a similar great job at LC-39A. Nevertheless, the public should be told how they plan to do that, in order for them to understand–and appreciate–SpaceX's plans and efforts to limit the impact of lighting on sea turtles. SpaceX's plans to minimize impact on sea turtles are described in their Lighting Operations Manuals (LOMs) and Light Management Plans (LMPs). Since these are not publicly available, there is no way to know what impact SpaceX's lights will have on sea turtles.	NP-6	See response NP-6.
Andrew Granston	FAA-2024-1395-0170-0004	I request that the following document be posted on-line and incorporated, in whole or by reference, into the final EIS: Lighting Operations Manual, SpaceX, Launch Complex 39A, Facility Number J8-1708 At Starbase, SpaceX has done a great job of minimizing their impact on sea tortoises, and protecting them when possible. I expect and hope that they will do the same at LC-39A. Publishing this document will help the public understand SpaceX's plans and efforts to minimize Starship's impact on sea turtles.	NP-6	See response NP-6.
Robyn Memphis	PublicMeeting-090325-0004-0005	So to simultaneously increase nighttime noise and restrict these access to places truly is a double burden and I'm hoping that there can be more input from	NP-7	See response NP-1 regarding opportunities for public involvement. See response MT-1 regarding mitigations.

Issue ID: 1	Issue Name: NEPA Process			
Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
		community members, and again, as others previously noted, potential mitigating discussion.		
Garrett Skrobot	PublicMeeting-090325-0005-0001	Also, we're looking at the analysis. You throw out a whole bunch of numbers out there on pressures and this, but we don't understand where the assumptions came from. The actual values of them are the analysis going to be released to the public so personnel with the ability to evaluate these analysis will be able to as an independent verification and validation that the work the FAA has done is complete and correct.	NP-8	Each section within EIS Chapter 3 (e.g., Section 3.2.4) has a subsection titled *Analysis Methodology* that describes the methods and assumptions used for analyses under each resource category. Appendix C provides a copy of the noise analysis report.
Angela Taiclet	TEMP-0014-0003	Was there a questionnaire that I missed, polling all Merritt Island residents?	NP-9	The FAA did not conduct a poll associated with the EIS. NEPA requires public involvement through the scoping process and public review of the DEIS (see Section A.1 and Section A.2.1 for a summary of public involvement activities).
Anonymous	FAA-2024-1395-0281-0018	The FAA published its Notice of Intent on May 10, 2024, with scoping meetings in June. The EIS does not specify when baseline studies began, raising concern that studies were too short to capture seasonal and long-term variabilityThe Draft EIS's baseline data collection, modeling, monitoring, and field testing all appear to cover a limited time window and start/end dates are not clearly provided. Without long enough baseline periods, natural variability (weather, nesting/migration, daily temperature/humidity cycles) is likely underrepresented.	NP-10	The "Baseline" consists of the existing environment, utilizing best available data to characterize the affected environment at the time of EIS development. Each EIS resource section has a *Study Area* section defining the extent of the area addressed, and an *Existing Conditions* section describing the existing environment. References are provided as applicable for information utilized as baseline where field studies were not utilized. Additionally, the *Environmental Consequences* section for each resource area provides information on the methodology utilized for analyses, along with any data utilized. NEPA (42 U.S.C. §4336(b)(3)(A), (B)) states that an agency may make use of "any reliable data source" and that an agency is "not required to undertake new scientific or technical research" unless "essential to a reasoned choice among alternatives, and the overall costs and timeframe of obtaining it are not unreasonable." For impact topics that are affected by launch rate (like noise and utilities), the recent past provides the best information to inform the baseline since it wasn't until very recently that KSC/CCSFS started experiencing high annual launch numbers.

Issue ID: 1	Issue Name: NEPA Process			
Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
Anonymous	FAA-2024-1395-0281-0083	Lack of disclosed start and end dates for baseline studies: noise, air quality, structural/vibrational monitoring.	NP-10	See response NP-10.
Anonymous	FAA-2024-1395-0436-0044	The FAA published its Notice of Intent on May 10, 2024, with scoping meetings in June. The EIS does not specify when baseline studies began, raising concern that studies were too short to capture seasonal and long-term variability.	NP-10	See response NP-10.
Anonymous	FAA-2024-1395-0436-0045	The Draft EIS's baseline data collection, modeling, monitoring, and field testing all appear to cover a limited time window and start/end dates are not clearly provided. Without long enough baseline periods, natural variability (weather, nesting/migration, daily temperature/humidity cycles) is likely underrepresented.	NP-10	See response NP-10.
Anonymous	FAA-2024-1395-0436-0050	For each technical study (noise monitoring, air quality baseline, wildlife surveys, structural testing), provide the start and end dates; number of sampling days; range of meteorological and seasonal variation captured.	NP-10	See response NP-10.
Anonymous	FAA-2024-1395-0281-0086	For each technical study (noise monitoring, air quality baseline, wildlife surveys, structural testing), provide the start and end dates; number of sampling days; range of meteorological and seasonal variation captured.	NP-10	See response NP-10.
Anonymous	FAA-2024-1395-0281-0022	The EIS Seems to rely primarily on nominal or expected operation scenarios; little detail of failure modes (deluge system failure, pad fire, venting) is provided.	NP-11	NEPA does not require extended speculation or worst-case scenario analyses. Operational contingencies (e.g., Emergency Response Plans) are in place to address off-nominal events and ensure public health and safety. Prior to a Starship-Super Heavy launch at LC-39A, the FAA would review SpaceX's application in accordance with 14 CFR Part 450 to ensure public safety. To meet safety requirements the FAA would be responsible for approving closures for launch-related activities. If property damage results from Starship-Super Heavy operations, the damage claim would be subject to the insurance policy terms. A

Issue ID: 1	Issue Name: NEPA Process			
Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
				third-party insurance claim can be submitted by sending an email to insurance@spacex.com (note – this is not a website; it is an email address).
Anonymous	FAA-2024-1395-0436-0025	The EIS Seems to rely primarily on nominal or expected operation scenarios; little detail of failure modes (deluge system failure, pad fire, venting) is provided.	NP-11	See response NP-11.
Bob Achgill	FAA-2024-1395-0447-0002	The National Environmental Policy Act (NEPA) requires agencies to analyze the [Bold: worst-case major safety risks] of any proposed federal action. For Starship launches, this must include the catastrophic possibility of a [Bold: launchpad explosion or cryogenic methane spill] ignition. FAA Ignored Public Requests Mechanical engineer [Bold: Bob Achgill] formally requested that the FAA disclose whether a [Bold: launchpad explosion scenario failure analysis] had been completed. FAA environmental specialist [Bold: Amy Hanson replied] but did not address the question, instead referring only to general stakeholder pages (See [Bold: Appendix A: Hanson–Achgill Email Exchange]). This omission violates NEPA's mandate to analyze all reasonably foreseeable, high-consequence events.	NP-11	See response NP-11.
Bob Achgill	FAA-2024-1395-0447-0003	Crucially, the [Bold: launchpad itself might remain intact]—allowing launch cadence to continue—while the surrounding civilian community is devastated. Elon Musk himself admitted before the first Starship flight that his [Bold: greatest fear was an explosion destroying the launch tower], proving that the risk is foreseeable and must be analyzed under NEPA.	NP-11	See response NP-11.
Bob Achgill	FAA-2024-1395-0447-0010	ULA's filing makes clear that [Bold: launchpad explosions are not fringe scenarios] — they are credible risks that could shut down U.S. military launch access. The [Bold: same risk radius endangers civilians] at Boca Chica.	NP-11	See response NP-11.

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		By failing to address this, the FAA is both [Bold: violating NEPA and enabling monopoly concentration,] since a catastrophic failure could eliminate competitors and consolidate power in one firm.		
Friends of Canaveral, Inc.	FAA-2024-1395-0298-0018	Given the likelihood of catastrophic loss, the FEIS should include a more robust analysis of reasonably foreseeable impacts. Currently, the DEIS acknowledges that debris and hazardous materials could be distributed due to launch failures, but does not provide a debris distribution map, nor an analysis of noise and vibration effects, water or air pollution impacts, due to an "off-nominal event."	NP-11	See response NP-11.
James O'Brien	FAA-2024-1395-0419-0011	Noise/boom performance standards. • Publish worst case (not only annual average) exposure maps in the Final EIS, based on the time varying meteorology analysis contained in Appendix C.1, and set mission planning constraints to avoid off center CDNL ≥60 dB at schools/daycares identified in the EIS (13 schools; 5 daycares within ≥60 dB CDNL).	NP-11	See response NP-11.
Anonymous	FAA-2024-1395-0281-0024	There is insufficient modeling of pollutant fate/transport to sensitive ecological receptors under worst-case exposures, and little clarity on cumulative exposure from many launches per year.	NP-12	See response NP-11 associated with worst-case scenarios and OT-6 regarding cumulative effects.
Anonymous	FAA-2024-1395-0436-0027	There is insufficient modeling of pollutant fate/transport to sensitive ecological receptors under worst-case exposures, and little clarity on cumulative exposure from many launches per year.	NP-12	See response NP-12.
Anonymous	FAA-2024-1395-0281-0036	The EIS does not provide evidence of field testing of residential plumbing (pipes, joints, fixtures) to See if vibration, pressure waves, or ground-borne noise could cause leaks, cracks, or failure.	NP-13	Field testing of residential plumbing was not conducted. NEPA (42 U.S.C. §4336(b)(3)(A), (B)) states that an agency may make use of "any reliable data source" and that an agency is "not required to undertake new scientific or technical research" unless "essential to a reasoned choice among alternatives, and the overall costs and timeframe of obtaining it are not unreasonable." Conducting field testing

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				of residential plumbing is not essential to a reasoned choice among alternatives. In the event that a launch or landing results in property damage, the FAA requires that SpaceX carry insurance in the amount of the "Maximum Probable Loss," which is determined on a launch-by-launch basis by the FAA and is up to $500 million per launch (see 14 CFR Part 440). The FAA requires SpaceX to maintain insurance in the unlikely event of claims of property damage resulting from flight of the Starship-Super Heavy launch vehicle. Property owners may contact SpaceX directly (insurance@spacex.com) to submit claims and evidence in support of the damage claim.
Anonymous	FAA-2024-1395-0281-0089	Were all engineering analyses (structural, plumbing, acoustic systems) certified by licensed Professional Engineers? If not, indicate when certification will be obtained.	NP-13	See response NP-13.
Anonymous	FAA-2024-1395-0436-0014	The EIS does not provide evidence of field testing of residential plumbing (pipes, joints, fixtures) to See if vibration, pressure waves, or ground-borne noise could cause leaks, cracks, or failure.	NP-13	See response NP-13.
Anonymous	FAA-2024-1395-0436-0053	Were all engineering analyses (structural, plumbing, acoustic systems) certified by licensed Professional Engineers? If not, indicate when certification will be obtained.	NP-13	See response NP-13.
Anonymous	FAA-2024-1395-0281-0061	It is not clear whether affected companies, airport authorities, port operators, or international trade partners have been consulted or whether they agree to or support the closure plans.	NP-14	Potentially affected companies, airport authorities, port operators, and international trade partners are included in the general public notifications. Section A.1, Section A.2.1, and Section A.2.3 provides a summary of the public involvement process.
Anonymous	FAA-2024-1395-0436-0057	It is not clear whether affected companies, airport authorities, port operators, or international trade partners have been consulted or whether they agree to or support the closure plans.	NP-14	See response NP-14.

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Anonymous	FAA-2024-1395-0281-0082	Many technical analyses rely on models and assumptions that may not have been independently peer reviewed or certified.	NP-15	Formal peer review is not mandated under NEPA; however, peer-reviewed studies and literature served as reference materials for the development of this EIS.
Anonymous	FAA-2024-1395-0281-0084	No clear record of independent peer review or credentialed engineering sign-offs in many chapters (noise, air dispersion, structural).	NP-15	See response NP-15.
Anonymous	FAA-2024-1395-0281-0088	Who peer reviewed each major technical chapter? Provide names, affiliations, date of review, comments received and responses.	NP-15	See response NP-15.
Anonymous	FAA-2024-1395-0436-0046	Many technical analyses rely on models and assumptions that may not have been independently peer reviewed or certified.	NP-15	See response NP-15.
Anonymous	FAA-2024-1395-0436-0052	Who peer reviewed each major technical chapter? Provide names, affiliations, date of review, comments received and responses.	NP-15	See response NP-15.
Anonymous	FAA-2024-1395-0281-0085	Unclear whether “success” and “reliability” benchmarks for reducing impacts, shrinking restricted-areas or closures, or increasing launch cadence are defined, measurable, or enforceable.	NP-16	Unsure what “success” and “reliability” benchmarks are referring to. Reduction of closure areas is discussed in Chapter 2 of the EIS. Monitoring and mitigation planning, as described throughout the EIS, will serve to help minimize potential effects.
Anonymous	FAA-2024-1395-0281-0087	What calibration and QA/QC was done for sensors and instruments? Are data sets/raw outputs available for review?	NP-18	No sensors or instruments were used as part of EIS analyses; noise and air emission predictions are based on modeling results and not actual measurements.
Anonymous	FAA-2024-1395-0436-0051	What calibration and QA/QC was done for sensors and instruments? Are data sets/raw outputs available for review?	NP-18	See response NP-18.
Aerospace Industries Association	FAA-2024-1395-0314-0004	AIA recommends that the FAA and the DAF consolidate their separate environmental reviews for LC-39A and SLC-37 into a single programmatic EIS. The DAF is preparing a separate EIS for proposed Starship-Super Heavy operations at SLC-37 at CCSFS and issued a Draft EIS for public comment on June 13, 2025. The Proposed Action at SLC-37 includes up to 76 launches, 152 landings annually (76 for Starship and	NP-19	While the DAF and FAA actions occur in relatively the same vicinity, they are separate actions with separate utility and purpose and need, and lead by different agencies. The LC-39A EIS addresses the DAF action at SLC-37 as a component of “reasonably foreseeable actions” as described in EIS Section 2.2 and subsections within each EIS resource area discussion.

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		76 for Super Heavy), 152 static fire tests, and an additional 20 percent allowance for scrubs. Given the proximity of LC-39A to SLC-37, the overlapping impact areas, and the scale of proposed activities at both locations, the potential for foreseeable effects is significant. Although the FAA and the DAF have signed a Memorandum of Understanding (MOU) to guide the review process, the current bifurcated approach, led by separate government entities, risks overlooking foreseeable effects of multiple high-cadence, large-scale launch systems operating within a single, shared range. [Footnote 9: Memorandum of Understanding Between Federal Aviation Administration (FAA) and the Department of the Air Force (DAF) on Environmental Review Process for Commercial Launch and Reentry Operations, FAA, 2022.] Differences between the Draft EIS documents, where certain details are included in one analysis but omitted in the other, underscore the need for greater alignment. AIA recommends that the two processes be harmonized into a single programmatic environmental review. Such coordination would reduce duplicative work, address potential analytical gaps, and improve stakeholder confidence in the federal review process. It would also provide a more comprehensive understanding of the foreseeable effects of Starship-Super Heavy operations on the Eastern Range, ensuring policy decisions are based on a full accounting of planned activity. If full harmonization is not feasible, the FAA and the DAF should, at a minimum, cross-reference one another's analyses and ensure that consistent assumptions, baselines, and methodologies are applied across both reviews.		

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Anonymous	FAA-2024-1395-0316-0004	Instead of conducting an EA, which is the minimal amount of necessary review and process as established by law and policy, the FAA should conduct a comprehensive impact assessment	NP-20	An EA was not conducted. The FAA has conducted an EIS, which is the most comprehensive and informed level of NEPA analysis required by law.
S N	FAA-2024-1395-0323-0007	Most importantly, how much money has SpaceX invested to date in improvements at LC-39A tied directly to Starship-Super Heavy operations? I request that the FAA disclose this figure as part of the administrative record.	NP-21	Costs to SpaceX, a private company, are not relevant to the FAA's decision and are outside the scope of this NEPA document.
DOI	FAA-2024-1395-0296-0029	(Appendix B.3 NHPA Consult Pt. 1)Page #: B-1 Comment: The unnumbered table indicates that, "National Park Service, National Historic Landmark Program, Southeast Region" had "No Response" to the request to become a NEPA cooperating agency. However, the National Historic Landmark (NHL) Program, Southeast Region has no record of a request to cooperate, and since the NPS is already a cooperating agency under NEPA, the Southeast Region NHL Program will coordinate through NPS, Southeast Region to submit NEPA comments moving forward. Please mark the NHL Program response as "Accepted(1/24/25),"; this date is the date the Final MOU between FAA and NPS was received.	NP-22	The unnumbered table referenced is associated with Consulting Party requests under NHPA Section 106; a request was sent to the NPS, National Historic Landmark Program, Southeast Region on September 23, 2024, and NASA received "No Response." With regards to a NEPA Cooperating Agency, the NPS is a Cooperating Agency (see Section A.2.2.1).
Bob Achgill	FAA-2024-1395-0447-0004	If [Bold: national security launches] are in jeopardy from a Starship pad explosion, so are American families. Why did the FAA refuse to analyze this foreseeable risk? Why did Amy Hanson decline to provide a direct answer to Bob Achgill (Appendix A)? Why is SpaceX allowed to conduct its own environmental review, when competitors like ULA are demanding independent oversight? The current environmental review is therefore [Bold: non-compliant with NEPA.] Independent, competitor-involved review is required.	NP-23	See response NP-11 regarding worst-case scenarios. The environmental review is being conducted by an independent contractor (Leidos) and the FAA.

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Bob Achgill	FAA-2024-1395-0447-0006	If Elon Musk has applied for [Bold: 42,000 satellites,] and 42,000 is the approximate number needed to monopolize global internet service, then the FAA must treat this as [Bold: monopoly intent.] It is not speculation; it is mathematically and legally evident. NEPA must weigh monopoly harm alongside environmental harm because monopolization affects the "human environment" through its impact on free markets, democracy, and speech. This constitutes an [Bold: illegal violation of the Sherman Act] that cannot be ignored.	NP-24	Assessment of business practices is not within the scope of NEPA or this EIS.
United Launch Alliance, LLC	FAA-2024-1395-0376-0013	Impact calculations and agency determinations must be based on the areas identified in the Draft EIS as impacted, dangerous, and restricted. The EIS process cannot be segmented or tiered, and if the BDA is changed appreciably there must be a SEIS conducted before regulatory permission is granted. Evaluation of BDAs is at the core of this major action and this evaluation may not be segmented.	NP-25	As indicated in Section 2.1.3.2, the BDA representation is notional; Ultimately, each restricted area is mission specific and will be determined by Range Safety and the FAA through the FAA license or license modification process. After receiving license or license modification materials, the FAA will determine the appropriate restricted areas to protect public safety and compare those areas to the assumptions provided in this EIS. The FAA would address any discrepancies or gaps, if found, in the environmental analysis. This is standard procedure for all launch providers. This does not equate to segmentation and does not warrant a Supplemental EIS.
United Launch Alliance, LLC	FAA-2024-1395-0376-0012	On September 18, 2025, applicant SpaceX stated that it intends to pursue a reduction of BDAs relating to Starship-Super Heavy launches through the introduction of unspecified new fueling methods and differing, less conservative methodologies for establishing BDAs and is purportedly coordinating with NASA and the FAA to effectuate those changes. [Footnote 17: See SpaceX Update.] Such a major overhaul of a core element to the Draft EIS would	NP-25	See response NP-25.

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		require independent, supplemental review, as the safety implications alone could be significant.		
United Launch Services, LLC	FAA-2024-1395-0376-0015	Modification to the BDA, whether an expansion or a reduction, constitutes a significant new circumstance or a substantial change to the Proposed Action, necessitating a SEIS. A reduction in the BDA is not merely a benign adjustment. It can lead to unforeseen environmental impacts from new or more burdensome land uses not previously analyzed within the existing EIS framework, or raise legitimate concerns about the methodology used to make such a reduction and whether that methodology is acceptable from a safety standpoint. Moreover, without the SEIS process, affected parties lack the transparent mechanism to evaluate the accuracy and basis of any such reduction. Under NEPA and CEQ regulations, the FAA has a clear duty to prepare a SEIS before making decisions and to refrain from issuing launch authorization if BDA calculations are revised. Treating the BDA as a moving target undermines the integrity of the environmental review process and could be deemed arbitrary and capricious, contrary to established legal precedent. It is clearly SpaceX's intent to avoid the operational disruptions described in these comments by shrinking the BDAs and Seeking the FAA and NASA's approval of that action as an effective mitigation measure. But to do so, affected launch providers like ULA must have full transparency into this process through the EIS framework and other avenues that support the environmental, safety, and other concerns that can be legitimately identified by ULA and other affected parties.	NP-25	See response NP-25.
United Launch Services, LLC	FAA-2024-1395-0376-0011	ULA evaluated environmental impacts of the Proposed Action based on the BDAs or access restricted areas calculated and published by the FAA in the Draft EIS. Mandated access restrictions and closure-related activities are determined by BDAs, a central function to	NP-25	See response NP-25.

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		this environmental impact review. Relying on Draft EIS BDAs, ULA evaluated how the frequency of the proposed launch activities in relation to BDAs will limit ULA's ability to maintain consistent operations. Although the Draft EIS identifies the basis upon which access will be restricted, closures will result, and evacuations will be required, the Draft EIS also indicates that BDAs may be changed (whether reduced or expanded). This contradictory action, possibly intended to segment or tier the Draft EIS, is procedurally improper under NEPA. [Footnote 16: An agency cannot "'evade its responsibilities' under [NEPA] by 'artificially dividing a major federal action into smaller components, each without a "significant" impact.'" Pres. Endangered Areas of Cobb's Hist., Inc. v. U.S. Army Corps of Eng'rs, 87 F.3d 1242, 1247 (11th Cir. 1996). This holds true for the FAA. See, e.g., FAA Order 10501.F § 2-3.2(b)(1) ("A proposed action cannot be segmented by breaking it down into small component parts to attempt to reduce [environmental] impacts.") (citing 40 C.F.R. § 1508.27(b)(7)). For an agency to segment a larger project into component parts, the agency would necessarily have to know about the entire proposal on the front end. City of Oxford v. FAA, 428 F.3d 1346, 1356 (11th Cir. 2005).] The Draft EIS did not invoke regulations relating to tiering or segmentation, thereby affording affected parties sufficient notice and an independent basis for review. Only the published BDAs in the Draft EIS should be evaluated and form the basis for agency decision. Speculation as to some future BDA change cannot form the basis of this consequential environmental review.		
United Launch Services, LLC	FAA-2024-1395-0376-0014	Under Council on Environmental Quality ("CEQ") regulations, an agency must prepare a SEIS when a major Federal action is incomplete or ongoing and	NP-25	See response NP-25.

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		either, (1) the agency makes substantial changes to the proposed action relevant to environmental concerns, or (2) there are substantial new circumstances or information about the significance of adverse effects. This includes changes to the BDA, even if a reduction, as any change represents significant new circumstances relevant to environmental concerns that mandate preparation of a SEIS under NEPA.		
South Atlantic Fishery Management Council	FAA-2024-1395-0297-0006	The Council is concerned that "the FAA has not established a significance threshold or identified factors to consider when evaluating" the following: Socioeconomics, children's environmental health, children's safety risks, context and intensity of potential environmental effects for land use, impacts on utilities and infrastructure, visual effects, impacts on nonendangered species,thresholds for coastal resources, impacts on the climate, significance thresholds for hazardous materials, solid waste, or pollution prevention. Natural resources and energy supply, transportation-related effects, or health and safety-related effects.The Council strongly suggests that the FAA analyze these categories and make threshold determinations before determining that the increase in Starship Heavy launches wouldn't have a significant impact.	NP-26	Each EIS resource section under *Environmental Consequences* outlines the factors used for significance determinations.
United Launch Alliance, LLC.	FAA-2024-1395-0376-0022	The Draft EIS further concludes that the Proposed Action would satisfy requirements for more efficient and effective space transportation methods and continue the United States's goal of encouraging activities by the private sector to strengthen and expand United States space transportation infrastructure. Critical to assured access is minimizing any impacts on neighboring launch operators and government facilities. To have "resilience" and "diversity" in launch vehicles and companies, multiple operators must be able to coexist. That is not possible if	NP-27	The commenter raises broad concerns about market forces as well as economic, commercial, and contractual considerations that fall outside the scope of NEPA analysis and are addressed, as appropriate, through other regulatory or policy mechanisms. While the CSLA directs the FAA "to ensure that the United States remains a leader in space transportation) and to (facilitate the strengthening and expansion of the United States space, transportation infrastructure," 51 U.S.C. 50901(b)(2), (4), the FAA need not take action to intercede on behalf of one space launch provider against another. The CSLA's statutory objectives

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		impacts from one operator impair or prevent the operations of another. In summary, there are at least four legal areas that demand additional consideration related to the Proposed Action: NEPA, the CSLA, ULA's existing lease and contractual obligations, and the mandate of assured access to space.		inform the agency's policy framework, but the environmental review process under NEPA is limited. NEPA assesses the potential environmental impacts of a proposed licensing action. It does not require the FAA to resolve competing policy priorities, such as infrastructure, allocation, or market participation, those determinations, which involve complex balancing of national security, economic, and technical factors, or ones that Congress and the president are better positioned to address. We further acknowledge that existing contractual arrangements may influence how space launch operations are coordinated. However, these agreements are private legal instruments, not governed by NEPA or the FAA's environmental review requirements. Moreover, the FAA's role under NEPA and the CSLA does not extend to adjudicating or enforcing contractual obligations between private parties. It is for Congress, not the FAA, to balance the competing goals of environmental protection and other national priorities.
United Launch Services, LLC	FAA-2024-1395-0376-0008	While launching rockets is generally a "consistent" or similar activity among launch providers, the similarities end when a launch provider proposes to bring a vehicle to KSC that is ten times larger in propellant mass and thrust than the Falcon 9, Atlas V, and Vulcan launch vehicles regularly launching from KSC and the adjacent CCSFS. The Draft EIS's effort to sidestep this major and other environmental impacts on the basis that ULA's current operations are similar is capricious and contrary to law. [Footnote 13: See, e.g., Nat. Res. Def. Council, Inc. v. U.S. Army Corps of Eng'rs, 457 F. Supp. 2d 198, 228-31 (S.D.N.Y. 2006) (finding the EA responsible agency failed to "take a hard look" at the proposed action because it assumed the proposed action was similar to existing uses, resulting in arbitrary and	NP-27	See response NP-27.

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		capricious actions).] The Draft EIS must assess the environmental impacts of the Proposed Action on other space launch operators and identify appropriate mitigation measures. It does not, despite claiming that somehow the effects could be minimized through implementation of mitigation, or by reducing the scope of the Proposed Action. These claims are not supported in the Draft EIS, and the Draft EIS summarily claims the effects of the Proposed Action are unavoidable and, therefore, justified.		
United Launch Alliance, LLC.	FAA-2024-1395-0376-0038	The FAA's determination is flawed. For example, in one case, the FAA did not endorse the prior EA performed by NASA because that proceeding did not involve issuance of an FAA license. [Footnote 100: Id., p. ES-3.] Yet here, the FAA purports to incorporate the EA by reference where convenient and adopts a critical decision from that EA: the selection of LC-39A to launch Starship-Super Heavy. In doing so, the FAA relied on a less robust process under NEPA and failed to consider not only the implications of a larger launch vehicle under the Proposed Action, but a doubling of its launch rate. Despite these significant changes, the FAA chose not to consider other locations and to accept the decision of NASA under a prior, less robust review. This decision is contrary to NEPA and all the other relevant and applicable legal considerations identified above.	NP-28	EIS Section 2.1.6 discusses launch site selection, while EIS Section 2.3 discusses alternatives considered but eliminated from further consideration. LC-39A is an existing pad that was previously approved by NASA for Starship-Super Heavy operations in 2019 under the *Final Environmental Assessment for the SpaceX Starship and Super Heavy Launch Vehicle at Kennedy Space Center (KSC)*. Since that time, SpaceX has begun infrastructure improvements based on previous NASA approval. As part of this EIS, the FAA considered a reasonable range of alternatives consistent with the agency's purpose and need under the NEPA. The purpose of the Proposed Action is to enable SpaceX to conduct operational Starship-Super Heavy launches from LC-39A, a federally controlled and previously developed launch site specifically designed for heavy-lift vehicles. The FAA's role is to evaluate SpaceX's application for a license at a defined location, not to select or direct the applicant to pursue an entirely different launch infrastructure.
United Launch Alliance, LLC.	FAA-2024-1395-0376-0039	The FAA relied upon a prior site selection determination under a less robust EA process for confirming LC-39A. In doing so, the FAA failed to consider not only the implications of a larger launch vehicle, but also the doubling of its launch rate. Despite these significant changes, the FAA chose not to consider other locations and to accept the decision of NASA under a prior, less	NP-28	See response NP-28.

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		robust review. This decision is contrary to NEPA and all the other relevant and applicable legal considerations identified above.		
Anonymous	FAA-2024-1395-0437-0009	Reconcile how approving 44 launches and 88 landings annually is consistent with the documented outcomes of the Boca Chica test program, which to date reflects only partial success at best.	NP-29	See response HS-11. In addition, events associated with Starship-Super Heavy at Boca Chica are not comparable; Boca Chica is a test and development site. SpaceX's license application or license modification to support Starship-Super Heavy operations at LC-39A must meet FAA safety, risk, and financial responsibility requirements under 14 CFR Part 450 before the Starship-Super Heavy vehicle could operate at LC-39A. Anomalies, by definition, are not expected events.
United Launch Alliance, LLC.	FAA-2024-1395-0376-0031	Even assuming that Starship-Super Heavy will meet projected performance requirements to successfully provide both NSSL and civil space and commercial missions, the FAA still must conduct a far more comprehensive assessment of on-base impacts and all necessary mitigation resulting from the use of the Starship-Super Heavy vehicle at LC-39A. Based on ULA's experience, we recommend that this assessment address the following: Impacts resulting from road closures, increased vehicle traffic, facility evacuations and closures, the effects on transportation and storage capabilities due to manifest disruptions, the adequacy of existing infrastructure, the management of deluge water, the interruption or unavailability of commodities, damage to buildings and hardware;Impacts to launch manifests and related launch contracts; Adequacy and availability of financial compensation for property damage and business interruptions;Exacerbation of any existing environmental conditions at KSC; andAdequacy of real estate instruments and development of other documents establishing necessary requirements for the operation of a super-heavy vehicle, including legal and	NP-30	Impacts resulting from road closures and increased vehicle traffic are addressed in EIS Section 3.16. Effects to other launch providers are addressed in EIS Section 3.3 (and need to be resolved through the range management process). Infrastructure is addressed in EIS Section 3.17; management of deluge water is addressed in EIS Section 3.9 and Section 3.17; commodities are addressed in EIS Section 3.14; potential damage to buildings is addressed in EIS Section 3.2; impacts to launch manifests and related launch contracts is associated with effects to other launch providers and need to be resolved through the range management process; adequacy and availability of financial compensation for property damage and business interruptions is not within the scope of the EIS to address — as noted, FAA licensing requirements ensure that the operator has the ability to insure its operations; existing conditions and potential effects on those conditions are addressed throughout the EIS; adequacy of real estate instruments is not within the scope of NEPA.

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		contractual protections afforded to other launch operators from super-heavy operations.		
S N	FAA-2024-1395-0323-0002	Section ES.2 of the Draft EIS notes that infrastructure improvements have already been constructed at LC-39A for Starship-Super Heavy operations, including the construction of a launch mount and related capital development. Did NASA, the FAA, or any other federal authority authorize SpaceX to make these capital and site improvements before the company had a license for Starship-Super Heavy launch operations?	NP-31	See response NP-31.
S N	FAA-2024-1395-0323-0004	Why were such improvements permitted when the company had not yet obtained licensing to operate the very vehicle those improvements were designed to support?	NP-31	See response NP-31.
S N	FAA-2024-1395-0323-0005	By permitting this work, did federal agencies effectively sanction SpaceX's use of "risk capital," where a developer invests millions in infrastructure without legal authority to operate the proposed project?	NP-31	See response NP-31.
Anonymous	FAA-2024-1395-0437-0002	Authorization of Site Improvements and Risk Capital at LC-39A Section ES.2 of the Draft EIS notes that infrastructure improvements have already been constructed at LC-39A for Starship-Super Heavy operations, including the construction of a launch mount and related capital development. Did NASA, the FAA, or any other federal authority authorize SpaceX to make these capital and site improvements before the company had a license for Starship-Super Heavy launch operations? Which specific agencies were required to authorize these improvements, and when did they provide approval? Why were such improvements permitted when the company had not yet obtained licensing to operate the very vehicle those improvements were designed to support? By permitting this work, did federal agencies effectively sanction SpaceX's use of "risk capital," where a developer invests	NP-31	As noted in EIS Section 1.1 in September 2019, LC-39A at KSC was previously sited for Starship-Super Heavy activities through NASA's *Final Environmental Assessment EA for the SpaceX Starship and Super Heavy Launch Vehicle at Kennedy Space Center* (referred to as "2019 NASA EA") and resultant FONSI. NASA completed the 2019 NASA EA to evaluate the potential environmental impacts resulting from construction and operations associated with the proposed SpaceX Starship-Super Heavy launch vehicle at LC-39A. The resulting FONSI concluded that the environmental impacts associated with the Proposed Action would not have a significant effect on the quality of the biological or physical environment; the FONSI reflects NASA's approval for SpaceX to begin infrastructure improvements. While the FAA was a Cooperating Agency on the 2019 NASA EA, the EA was not adopted by the FAA because SpaceX did not apply to the FAA for a commercial launch vehicle operator license at that time

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		millions in infrastructure without legal authority to operate the proposed project? Did NASA communicate—verbally, in writing, or otherwise—that SpaceX would assume full financial risk for these improvements dating back to 2019, absent a Starship-Super Heavy license? Most importantly, [Bold: how much money has SpaceX invested to date in improvements at LC-39A tied directly to Starship-Super Heavy operations?] I request that the FAA disclose this figure as part of the administrative record.		and the FAA had no corresponding Federal action requiring evaluation.
Anonymous	FAA-2024-1395-0408-0007	Produce a complete accounting of authorizations and the total SpaceX capital invested at LC 39A for Starship Super Heavy improvements, together with the legal rationale for permitting construction prior to licensing.	NP-32	See responses NP-31 and NP-21.
Anonymous	FAA-2024-1395-0408-0002	Site Improvements and Risk Capital ES.2 Issue: The Draft EIS notes that significant infrastructure for Starship operations has already been constructed at LC 39A. Requests: o Authorization Record: Disclose whether NASA, the FAA, or any other federal entity authorized SpaceX to perform capital improvements at LC 39A prior to issuance of a Starship Super Heavy launch license. o Agency Approvals: Identify the specific agencies, the approvals required, and the dates those approvals were granted. o Legal Basis: Explain the legal basis that permitted construction before licensing of the vehicle those improvements support. o Risk Capital: State whether federal actions effectively enabled SpaceX to deploy private risk capital without an operational license and whether any agency communications obligated SpaceX to assume full financial risk for those improvements starting in 2019. o Investment Total: Provide the total amount SpaceX has invested to date in LC 39A improvements directly	NP-32	See responses NP-31 and NP-21.

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		attributable to Starship Super Heavy operations and include this figure in the administrative record.		
Anonymous	FAA-2024-1395-0437-0007	Provide a full accounting of the capital SpaceX has invested at LC-39A for Starship-Super Heavy improvements (as described in ES.2), including the legal basis for permitting those improvements before a license was obtained.	NP-32	See responses NP-31 and NP-21.
Anonymous	FAA-2024-1395-0281-0056	The document does not disclose NPS's formal position on whether such closures are consistent with its statutory mission.	NP-34	See response NP-34.
Anonymous	FAA-2024-1395-0281-0059	Has the Department of the Interior or NPS issued an opinion on whether prolonged closures are compatible with the National Park Service Organic Act?	NP-34	See response NP-34.
Anonymous	FAA-2024-1395-0281-0065	Have those stakeholders been consulted; what is their assessment or level of support for proposed closure and rerouting protocols?	NP-34	See response NP-34.
Florida Airports Council (Tiffany King)	FAA-2024-1395-0218-0001	The Florida Airports Council is providing this comment to respectfully request an extension to the comment period for the above referenced EIS. Florida airports appreciate the opportunity to provide comment on the EIS and have been diligently reviewing and coordinating with each other and with SpaceX and the Federal Aviation Administration (FAA) to better understand the impact to the National Airspace System (NAS) throughout Florida, including four of the Core 30 Large Hub Airports in the United States, resulting from this proposed new use at the Kennedy Space Center.	NP-36	The FAA provided a 7-day extension on the DEIS public/agency review period until September 29, 2025. This was published in the Federal Register on September 22, 2025 (90 Federal Register 183-45975).
Florida Airports Council (Tiffany King)	FAA-2024-1395-0218-0002	Given the sensitivity to potential impacts to the NAS and unknown economic impacts to Florida airports and "cascading" impacts to NAS users documented in the EIS, the Florida Airports Council respectfully requests a thirty (30) day extension to the public comment period until October 22, 2025. This additional time will allow Florida airports sufficient time to evaluate the impacts	NP-36	See response NP-36.

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		of the EIS proposed action on the NAS and their individual operations and to provide the informed and complete comments for the FAA's use in completing its environmental review.		
Indian River Lagoon Roundtable	FAA-2024-1395-0277-0005	Consideration of atmospheric conditions, launch frequency and emitted pollutants in Brevard's air, water and soil need to be taken into account. The cumulative impact of all Spaceport activity resulting from 44) Starship launches and 88) landings at Kennedy Space Center, 76) Starship launches and 152) landings at the Space Force Station, 120) Falcon 9 launches and landings, hops, test firings, DOD missions and other spaceport activity is not predictable.	NP-37	Consideration of atmospheric conditions, launch frequency and emitted pollutants, and effects to air, water and soil are considered in EIS Section 3.11, Section 3.9, and Section 3.13, respectively. See response OT-1 regarding cumulative effects.

Notes: : § = Section; BDA = Blast Danger Area; CFR = Code of Federal Regulations; CCSFS = Cape Canaveral Space Force Station; CSLA = Commercial Space Launch Act; DAF = Department of the Air Force; DEIS = Draft Environmental Impact Statement; EA = Environmental Assessment; EIS = Environmental Impact Statement; FAA = Federal Aviation Administration; FONSI = Finding of No Significant Impact; KSC = Kennedy Space Center; LC = Launch Complex; LOM = Lighting Operations Manual; NASA = National Aeronautics and Space Administration; NEPA = National Environmental Policy Act; NHPA = National Historic Preservation Act; NPS = National Park Service; SLC = Space Launch Complex; SpaceX = Space Exploration Technologies Corp.; U.S.C. = United States Code; USFWS = United States Fish and Wildlife Service.

Issue ID: 2	Issue Name: Purpose and Need			
Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
Jeanne Abright	TEMP-0005-0002	As for the proposed Super Heavy launches, why is this needed? The environmental impact will be tremendous.	PN-1	EIS Section 1.3 describes the purpose and need for the Proposed Action.

Note: EIS = Environmental Impact Statement.

Issue ID: 3	Issue Name: Proposed Action and Alternatives			
Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
Pam Avery	FAA-2024-1395-0079-0001	Closing the access road more than 60 days a year would greatly impact us. We are also deeply concerned about this rocket, given its past explosions and damage in Texas, a much less populated area. Please consider	PA-1	EIS Section 2.1.6 discusses launch site selection, while EIS Section 2.3 discusses alternatives considered but eliminated from further consideration. LC-39A is an existing pad that was previously approved by NASA for Starship-Super Heavy

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		alternatives — such as relocating the pad or building a new access road within the safety zone — so that we can remain safe while enjoying our Space Coast and still have access to the beach we cherish.		operations in 2019 under the *Final Environmental Assessment for the SpaceX Starship and Super Heavy Launch Vehicle at Kennedy Space Center (KSC)*. Space on KSC for new launch infrastructure is limited; relocating the pad would result in additional and unnecessary effects to the natural environment and may conflict with other operations, including other launch providers. See response MT-34 regarding access road relocation.
James O'Brien	FAA-2024-1395-0419-0009	If the FAA proceeds to a Final EIS, it should include and analyze an alternative that: 1. Limits licensing to launches/landings that directly support government missions/infrastructure (NASA/USSF), excludes purely commercial missions from LC 39A, and caps annual events consistent with airspace and public lands tolerances evidenced in the EIS. 2. Restricts nighttime operations (or sets a strict cap) to reduce awakenings and community CDNL exceedances, given the EIS shows late night operations drive off center exposure. 3. Requires compensation to NPS for documented fee revenue losses (17–18%) and to affected local governments for launch day public safety staffing. 4. Requires a property level mitigation fund for off center residents subjected to recurrent LAmax ≥90 dB and CDNL ≥60 dB (e.g., window/door upgrades, voluntary insulation assistance), analogous in spirit to FAA Part 150 airport noise programs. The EIS quantifies 22,726 households/34,957 people in the 60–65 dBC band from Starship alone. 5. Commits to airspace minimization: shorter closure windows, off peak scheduling, and pre coordinated reroutes, with a requirement to monetize delays in the	PA-1	See response PA-1.

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		Final EIS record (since the Draft quantifies duration but not cost).		
American Association of Nude Recreation-Florida Region	FAA-2024-1395-0169-0006	We agree with the speaker who suggested that it should be determined from an environmental perspective whether KSC or a remote location is more appropriate for SpaceX expansion.	PA-1	See response PA-1.
American Association of Nude Recreation-Florida Region	FAA-2024-1395-0169-0020	That said, there was no data presented at the virtual meeting that indicated KSC was the ideal location for SpaceX expansion, only the environmental effects if expansion was allowed. We agree with the speaker who suggested that it should be determined from an environmental perspective whether KSC or a remote location is more appropriate for SpaceX expansion.	PA-1	See response PA-1.
Cheryl Rogers	FAA-2024-1395-0117-0002	One alternative would be to relocate the pad slightly or construct a new access road within the safety zone that allows safe passage while maintaining launch safety protocols. This would better balance public access with operational requirements.	PA-1	See response PA-1.
Fraser Howe	PublicMeeting-090325-0011-0002	Others have asked about alternative locations, and I'd like to have the results of this public hearing address whether or not Spaceport America, a purpose built Spaceport in New Mexico, has been considered for the SpaceX Heavy Starship launches.	PA-1	See response PA-1.
James O'Brien	FAA-2024-1395-0419-0001	For the reasons documented below, the Federal Aviation Administration (FAA) should select the No Action Alternative. If the No Action alternative is not feasible, the FAA should analyze and adopt a new "Government Mission Only" alternative that would limit Starship/Super Heavy licensing at LC 39A to activities that directly support government missions and infrastructure, with enforceable caps, scheduling limits, and compensation/mitigation for community impacts.	PA-1	See response PA-1.

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Kathleen Ritch	PublicMeeting-090325-0003-0001	There are many locations across the US that have little to no residential population, offering a safer and less intrusive experience. Why not a more desolate region with fewer residents?	PA-1	See response PA-1.
Speaker	PublicMeeting-082825-0002-0004	And I'm not sure why they didn't pick, like, launching out from sea or launching from a more rural area, like Boca Chica, in the keys, or in Texas.	PA-1	See response PA-1.
Fred Goldstein	FAA-2024-1395-0083-0006	At times the Draft EIS discusses a metal plate below the vehicle as currently used at Boca Chica and at other times a diverter/or a flame diverter. Are they installing a diverter? And further on it states "...specific details are currently unknown" Given the experience at Boca Chica without a diverter, shouldn't there at least be some requirement for a diverter, as have been used with the Shuttle and Saturn V, and some modeling of its potential construction materials, operations and impact, perhaps using the shuttle flame trench experience as an example prior to finalizing this?	PA-2	As discussed in the EIS, a diverter is a component of launch infrastructure. EIS Section 2.1.3.2 and Section 2.1.4.3 discuss the diverter.
Gabriella Plaza	FAA-2024-1395-0091-0001	Choose a different pad. If you go more south you'll be in areas that already support tourism.	PA-3	LC-39A is an existing pad that was previously approved by NASA for Starship-Super Heavy operations in 2019 under the *Final Environmental Assessment for the SpaceX Starship and Super Heavy Launch Vehicle at Kennedy Space Center (KSC)*. LC-39A is a pad leased by SpaceX; LC-48 is the only existing NASA pad south of LC-39A and is intended for small-lift vehicles but has never been used.
Gabriella Plaza	FAA-2024-1395-0091-0002	Use a southern pad, or none at all.	PA-3	See response PA-3.
Cheryl Rogers	FAA-2024-1395-0117-0007	Alternative: Limit Starship/Super Heavy Launches to Texas One alternative worth serious consideration is limiting the majority of launches to SpaceX's Starbase site in Texas. While I recognize why SpaceX Seeks dual sites, concentrating high-frequency operations in Texas	PA-5	A goal of the Starship-Super Heavy program is to support NASA missions; having Starship-Super Heavy located at NASA KSC provides the necessary operational flexibility to support NASA missions.

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		would substantially reduce environmental & community impacts in Florida. Florida launches could be reserved for missions that truly require KSC's infrastructure and NASA partnerships, while routine and test flights remain based in Texas. A phased deployment that starts with Texas operations would give the FAA and the public more time to evaluate real-world effects before scaling up activity at LC-39A. No additional KSC access should be granted until there have been at least 10 successful consecutive launches from Texas.		
Cheryl Rogers	FAA-2024-1395-0117-0008	If the FAA does grant permission, I urge adoption of phased operational limits - allowing a lower number of launches at first, with rigorous monitoring - before moving to full-scale deployment.	PA-6	Launch and landing frequencies analyzed in the EIS represent the Proposed Action identified by SpaceX to evaluate the potential environmental impacts of full operations. Actual operations would be subject to FAA launch licensing under 14 CFR Part 450, which requires verification of safety, environmental, and risk criteria prior to authorization.
Surfrider Foundation Space Coast Chapter	FAA-2024-1395-0439-0018	The Draft EIS does not contemplate any other reasonable action alternatives such as a lower launch cadence, which could facilitate more accurate data collection and better determination of potential impacts for future planning and increases in activity.	PA-6	See response PA-6.
Ronald Balogh	FAA-2024-1395-0094-0001	Space X has shown no consideration to the communities around them with regards to sonic booms and if they are permitted to launch Starship from KSC they should launch from the farthest point North on KSC property and land their boosters as far North and as far away from populated areas as possible	PA-7	The only other launch pad north than LC-39A is LC-39B. NASA utilizes LC-39B for the SLS rocket as part of the Artemis program. Significant upgrades have been completed at LC-39B to support the SLS rocket and Orion spacecraft for Artemis missions. These include replacing or upgrading pad subsystems used during the Apollo and Space Shuttle programs. As a result, it would be impracticable to utilize LC-39B for Starship-Super Heavy due to the necessary infrastructure and refurbishment requirements. Although LC-49 is proposed for siting north of both of these existing pads, it was eliminated from consideration for the Starship-Super Heavy program based on citing criteria described in EIS Section 2.1.6.

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Burris	PublicMeeting-082825-0006-0004	They made the comments tonight about they would sometimes land at the Cape and sometimes land in the ocean, but the whole point of SpaceX right now is their loop system, where they actually catch it and bring it back in. Which means, every single one coming back in will have a sonic boom. I think that needs to be made clear.	PA-7	See response PA-7.
Burris	PublicMeeting-082825-0006-0008	I think they need to come forward about exactly how many launches a year this is going to be. It's not going to be 44, it's going to be almost one every day going up, which means you're going to be awakened probably almost every night with a sonic boom.	PA-8	The launch cadence and associated landings proposed under this Proposed Action is 44. Should the operational concept evolve in the future to include more launches and associated landings, additional environmental review would be required.
Tracy Portz	TEMP-0004-0001	Expendable boosters and landing apparatus- where do this go in the Ocean? Is it retrievable or does it just pile up over time and marine life and creatures have to deal wit this forever?	PA-9	As stated in EIS Section 2.1.3, the goal of Starship-Super Heavy is to be fully reusable. There may be instances where Starship and/or Super Heavy may be expended in the ocean. An expended Starship and/or Super Heavy would break up above the ocean's surface or on impact with the ocean's surface, or it would sink. Upon impact with the ocean a structural failure may occur resulting in an explosive event, or the vehicle could land vertically and intact in the water (soft water landing). The vehicle would then take on water and sink on its own, be scuttled (purposefully sunk), or be transported back to land.
City of Titusville (Mayor Andrew Connors)	TEMP-0026-0004	We respectfully ask the Federal Aviation Administration and other involved agencies to reconsider the terms under which SpaceX is permitted to close public lands, particularly for long periods or with repeated frequency.	PA-10	The FAA has an obligation to ensure public safety under its authority to issue licenses for launches and reentries. Prior to a Starship-Super Heavy launch at LC-39A, the FAA would review SpaceX's application in accordance with 14 CFR Part 450. To meet safety requirements the FAA would be responsible for approving closures for launch-related activities.
Kevin Riley	PublicMeeting-082625-0004-0001	SpaceX has a really bad record in designing launch deluge systems. Remember the stuff that exploded giant slabs of concrete into the air, hitting cars parked far away from the launch pad? This is something that	PA-11	Since improvements to the launch mount were completed at the Boca Chica Launch Site after Starship-Super Heavy's first launch in 2023, there have not been any anomalies at the

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		NASA and the National Park Service should hold SpaceX's feet to the fire on in getting a proper deluge system. This will contain the chemicals in the exhaust room and also deaden sound, which Seems to be the biggest problem that, obviously, is shown on some of the graphs we saw today.		launch site. As discussed in Section 2.1.3 of the DEIS, a deluge system is proposed at LC-39A.
Samantha Branch	PublicMeeting-082825-0001-0001	My first issue is with the FAA allowing launches when there are other alternatives, such as Sea Launch, which would be a better alternative as it would be offshore and would affect less natural resources and less public communities.	PA-12	The FAA considered a reasonable range of alternatives consistent with the agency's purpose and need under the NEPA. The purpose of the Proposed Action is to enable SpaceX to conduct operational Starship-Super Heavy launches from KSC LC-39A, a federally controlled and previously developed launch site specifically designed for heavy-lift vehicles. Offshore or "sea launch" concepts were not carried forward for detailed analysis because they do not meet the purpose and need of the Proposed Action. The FAA's role is to evaluate SpaceX's application for a license at a defined location, not to select or direct the applicant to pursue an entirely different launch infrastructure. Developing and operating an offshore launch platform would represent a fundamentally different project, requiring its own design, safety analysis, logistical support, and separate environmental review. Additionally, KSC provides existing infrastructure, range safety support, and environmental controls within an established Federal spaceport with restricted public access and compatible land use.
Cheryl Rogers	FAA-2024-1395-0117-0004	Alternatives like relocating certain landing operations further offshore, combined with strong spill prevention and rapid response protocols, could reduce these impacts.	PA-12	See response PA-12.
E A H	FAA-2024-1395-0442-0007	Space X is currently utilizing floating platforms, Drone Ships, and barges for landings. We respectfully request further exploration of an offshore launch facility that would be less impactful to the surrounding area's local environment and community.	PA-12	See response PA-12.

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Thomas L. Ford	TEMP-0003-0003	I would support the FAA's approval of the proposed launch schedule only if all booster and vehicle returns are directed to drone ships offshore, rather than to LC-39A. This would significantly reduce the risk of structural damage to homes in the surrounding area and mitigate the impact on local residents.	PA-12	See response PA-12.
Anonymous	FAA-2024-1395-0281-0030	Assumptions of improvement in reliability are speculative without specified metrics, historical data, or enforceable thresholds.	PA-15	As discussed in Section 2.1, improvement in vehicle reliability are essential as part of the test/development process, as demonstrated by Falcon.
Anonymous	FAA-2024-1395-0281-0033	What is SpaceX's documented historical performance (number of launches, success/partial success/failure breakdown) for Starship at Boca Chica, and how has that data been used in deriving assumptions about reliability for LC-39A?	PA-16	Events associated with Starship-Super Heavy at Boca Chica are not comparable; Boca Chica is a test and development site. SpaceX's license application or license modification to support Starship-Super Heavy operations at LC-39A must meet FAA safety, risk, and financial responsibility requirements under 14 CFR Part 450 before the Starship-Super Heavy vehicle could operate at LC-39A. Anomalies, by definition, are not expected events.
Anonymous	FAA-2024-1395-0281-0034	What specific success or performance metrics will be required before the FAA permits increased cadence, reduced restricted areas, or smaller closure zones?	PA-16	See response PA-16.
Anonymous	FAA-2024-1395-0436-0067	What is SpaceX's documented historical performance (number of launches, success/partial success/failure breakdown) for Starship at Boca Chica, and how has that data been used in deriving assumptions about reliability for LC-39A?	PA-16	See response PA-16.
Anonymous	FAA-2024-1395-0292-0002	I propose that another ambitious yet completely attainable alternative that could satisfy the concerns of all interested parties would be the following: The construction of a heavy-duty elevated causeway from LC-39A eastward 2 to 5 miles into the relatively shallow ocean to a man-made offshore island where the SpaceX Starship-Super Heavy Launch vehicle could launch and land. This could potentially eliminate any public concerns associated with the launches while allowing	PA-17	An alternative of this size and scope does not meet the criteria of "reasonableness" due to the potential cost and environmental effects.

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		Playalinda Beach to remain open. Moreover, the creation of an offshore launching/landing area could safely serve our country far into the future.		
Fred Goldstein	FAA-2024-1395-0306-0004	It does not appear SpaceX plans to build a drone ship capable of landing Starship or the Booster at Sea. I recognize this would increase their costs and refurbishment timelines. But perhaps there are certain dates or times when an offshore return of the Booster or Starship would benefit the community and should be considered. And this would certainly be preferable to landing in the ocean when for whatever reason they cannot land at LC-39A. FAA should require they develop and build a drone ship.	PA-18	As stated in EIS Section 2.1.3, both Starship and the Super Heavy Booster could land on a drone ship in the Atlantic Ocean. However, the intent is for both vehicles to return to the launch site. Starship and Super Heavy Booster landings on a droneship are evaluated in the EIS. It is a component of the Proposed Action. It is anticipated that landings on land would have more substantial impacts than droneship landings; therefore, the EIS focuses on evaluating the more impactful activity. Should the capability be developed to land the booster and vehicle on a droneship within the scope of this EIS, that would be an available option for SpaceX.
S N	FAA-2024-1395-0323-0001	The Draft EIS references “public interests” in Section ES.4, but does not provide examples. Please clarify what specific public interests are being invoked. For transparency, the EIS should detail whether these include national defense, commercial competitiveness, scientific advancement, economic development, or other categories.	PA-19	As stated the public interests include “increase operational efficiency, capabilities, and cost effectiveness” resulting in more efficient and effective space transportation methods and continuation of the United States’ goal of encouraging activities by the private sector to strengthen and expand U.S. space transportation infrastructure.
Anonymous	FAA-2024-1395-0408-0001	Clarification Requested Public Interests ES.4 Issue: Section ES.4 invokes “public interests” without specifying what those interests are. Request: Identify the specific categories encompassed by “public interests,” including but not limited to national defense, commercial competitiveness, scientific advancement, economic development, public safety, and environmental protection.	PA-19	See response PA-19.
Anonymous	FAA-2024-1395-0408-0005	Disclose the specific public interests referenced in ES.4.	PA-19	See response PA-19.
James O'Brien	FAA-2024-1395-0419-0003	Even before layering on additional CCSFS licensing, the Draft EIS acknowledges noise/sonic boom effects that are incompatible with residential use over thousands of	PA-21	See responses PA-1 and PA-12.

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		acres and that predict frequent awakenings—burdens that would be borne by families, schools, and businesses outside the federal boundary. FAA should establish an alternative that brings these impacts below a level of significance and within FAA's own compatible thresholds. If this is not possible, FAA should choose the No Action Alternative.		
Bob Achgill	FAA-2024-1395-0447-0008	NEPA requires consideration of [Bold: reasonable alternatives] that reduce risk and environmental harm. The current siting of Starship at [Bold: Boca Chica:] Sits directly on a [Bold: federally protected wildlife reserve,] destroying habitat. Places the [Bold: city of South Padre Island (~6 miles away)] within blast radius. Creates [Bold: conflicts of interest,] as military benefits overlap with public safety oversight. If the FAA fails to seriously evaluate safer sites, this review violates NEPA's alternatives requirement.	PA-24	NEPA requires consideration of reasonable alternatives that meet the purpose and need; these alternatives are not necessarily required to reduce risk and environmental harm (that is the purpose of mitigations). Regardless, Boca Chica is not the subject of analyses within this EIS.
United Launch Alliance, LLC. United Launch Services, LLC	FAA-2024-1395-0376-0041	One alternative could be to construct a new launch complex to the north of LC-37B, where SpaceX could use existing infrastructure while being further removed from other launch operators. Another option would be to launch from an offshore platform to avoid operational interference at KSC or CCSFS, and to move explosive and acoustic hazard areas away from land. All viable alternatives come with some environmental impact, but the goal should be to select a location where those impacts can be minimized. Unfortunately, not only were these alternate locations not identified or considered, but the Draft EIS failed to identify all of the environmental impacts that will result from the Proposed Action, as well as related mitigation measures as required under NEPA. In doing so, the Draft EIS undermines the critical launch capabilities of other	PA-25	Constructing a new launch complex to the north of LC-37B would not allow SpaceX to "use existing infrastructure;" new infrastructure would need to be created. LC-39A already has most of the necessary infrastructure because it was previously approved for use by NASA in 2019 and construction has already begun. It would be impracticable to move from a site already approved; this would also shift the potential effects further to areas outside of KSC property. This applies to creating an off-shore launch complex as well; additionally, an alternative of this size and scope does not meet the criteria of "reasonableness" due to the potential cost and environmental effects. LC-39A provides time-critical mission capability to NASA and commercial pursuits via the Starship-Super Heavy. In addition to existing launch infrastructure, LC-39A provides launch site diversity for Starship-Super Heavy to meet the purpose and need for

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		providers, and the United States government's mandate of assured access to space.		near-term lunar exploration under the NASA Artemis and Human Landing System programs. Given the above, no other launch sites were considered for this Proposed Action.
Dixie Crossroads Seafood Restaurant, Inc.	FAA-2024-1395-0443-0002	There is plenty of room on the north side of SLC-37 for SpaceX to build another launch complex. Realignment of Cape Road to the west would open an area the size of SLC-37. SpaceX can launch their Starship Super Heavies from that location and return to just launching Falcon 9s from LC-39A. That would enable the public access areas of CNS and MINWR to be managed as Congress directed in 1975	PA-25	See response PA-25.
United Launch Alliance, LLC. United Launch Services, LLC	FAA-2024-1395-0376-0040	There are alternative launch facilities for the Starship-Super Heavy. SpaceX currently launches from a launch facility it named "Starbase" located in Boca Chica, Texas. As the exclusive launch operator, SpaceX enjoys unfettered operations at all times and every day at Starbase. Continued launches from Starbase would not cause the foreseeable operational paralysis that it will cause at KSC and CCSFS. Risk of Starship-Super Heavy catastrophic failures could be avoided at KSC and CCSFS if Starship-Super Heavy continues to launch exclusively from Starbase. But if there are legitimate limitations to the Boca Chica location as far as supporting the United States government or other requirements, then the FAA needs to assess other locations at KSC, CCSFS, or elsewhere that are less impactful to existing launch operators, rather than default to a prior site selection that fails to align with the activities described in the Proposed Action. Any failure to consider alternative locations for Starship-Super Heavy causes the Draft EIS to fail because it must assess the significant environmental impacts of the Proposed Action, and means to mitigate or alleviate those impacts.	PA-26	See response PA-5 regarding Boca Chica. See responses PA-3 and PA-7 regarding other locations on KSC.

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Friends of Canaveral, Inc.	FAA-2024-1395-0298-0012	this is not a situation where there is "no practical alternative." Clearly, Starship-Super Heavy is currently launched from Boca Chica, Texas, and under review for launches at Cape Canaveral Space Force Station. Each of these alternative sites are more removed from urban areas and have lesser impacts on Section 4(f) resources enjoyed by the public.	PA-27	See response PA-5 regarding Boca Chica. Activities proposed for CCSFS are separate from this Proposed Action and are addressed in a separate NEPA document.
Titus	PublicMeeting-082625-0002-0001	It's an impact study and these impacts are inherently detrimental. So we can start there as the number one reason the Starship facility needs to be relocated and/or heavily regulated.	PA-31	See response PA-1. In addition, an EIS is a detailed study required by NEPA when a major Federal action is determined to have a potentially significant effect on the environment. It is the most comprehensive form of environmental review required under NEPA.
Anonymous	FAA-2024-1395-0148-0002	It would appear that alternate launch sites were not seriously considered. A second, and possibly a third, launch site should be considered, to share the launch cadence.	PA-33	See responses PA-3 and PA-27.
Anonymous	FAA-2024-1395-0283-0001	As an alternate location, I propose the Spaceport America facility. I believe the impact on our beloved environment, wildlife, endangered species & protected wildlife areas' flora and fauna, businesses, historical, archeological, architectural and cultural sites and interests, property values, the Atlantic Ocean and surrounding waterways, and on visitor and residents to be significantly underestimated by the published studies, as has the frequency and duration of closures to land, sea, and air businesses and property, including by postponement/scrubbing of launches. Further studies need to be conducted with independent verification by specialists who can accurately evaluate any numbers that have been or will be released related to the impact of the launches on our county.	PA-34	The Spaceport America facility does not meet the purpose and need and site evaluation criteria of the Proposed Action as described in EIS Section 2.1.6.
Bob Achgill	FAA-2024-1395-0447-0009	Relocation is the only path consistent with NEPA Given these factors, [Bold: Kenedy County, TX,] is a demonstrably safer and more equitable site. It:	PA-35	Construction of a new launch facility in Kennedy County, Texas, does not meet the purpose and need and site

Issue ID: 3	Issue Name: Proposed Action and Alternatives			
Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
		[Bold: Removes families in South Padre Island from blast danger.] [Bold: Protects wildlife] by avoiding Boca Chica's reserve. [Bold: Eliminates conflicts of interest] where the military both benefits from and oversees launch safety. [Bold: Meets NEPA's alternatives requirement] for reducing significant impacts. [Bold: Recommendation:] The FAA must require that Starship/Super Heavy operations be relocated to Kenedy County as a condition of any further approvals.		evaluation criteria of the Proposed Action as described in EIS Section 2.1.6.
Bob Achgill	FAA-2024-1395-0447-0012	Relocating Starship operations to Kenedy County is a [Bold: reasonable, safer, and more equitable alternative] that satisfies NEPA obligations while preserving national security and protecting local communities. The FAA must include this option in its environmental review.	PA-35	See response PA-35.

Notes: CFR = Code of Federal Regulations; CCSFS = Cape Canaveral Space Force Station; DEIS = Draft Environmental Impact Statement; EA = Environmental Assessment; EIS = Environmental Impact Statement; FAA = Federal Aviation Administration; KSC = Kennedy Space Center; LC = Launch Complex; NASA = National Aeronautics and Space Administration; NEPA = National Environmental Policy Act; SLS = Space Launch System; SpaceX = Space Exploration Technologies Corp.; U.S. = United States.

Issue ID: 4	Issue Name: Noise			
Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
Frank DeBernardo	FAA-2024-1395-0077-0001	I understand that the FAA and SpaceX are forecasting noise levels for a Starship launch, however I'm not aware of the decibel limit that assures structures aren't destroyed.	NO-1	Section 3.2 of the EIS discusses potential noise effects to structures. The National Academy of Sciences' *Guidelines for Preparing Environmental Impact Statements on Noise* state that one may conservatively consider all sound lasting more than 1 second with levels exceeding 130 dB (unweighted) as potentially damaging to structures (CHABA, 1977). A study of structural damage claims from rocket ground tests indicates that, based on unweighted L_{max}, approximately one damage claim will result per 100 households exposed at 120 dB and

Issue ID: 4	Issue Name: Noise			
Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
				one damage claim per 1,000 households exposed at 111 dB, but the study did not characterize the nature of the damage that may result from these claims (Guest & Slone, 1972). Therefore, as noted by Guest and Slone (1972), the L_{max} values of 111 dB and 120 dB may be used as very conservative thresholds for potential risk of structural damage claims. Note that these studies/data apply to the project's continuous/propulsion noise. More recently, in 2016, the United Kingdom Ministry of Defense Land Ranges commissioned a study to ascertain whether test, evaluation, demilitarization, and training activities of items such as weapons systems, ordnance, and munitions (i.e., short duration, transient sound) would cause structural damage (Fenton & Methold, 2016); this study/data applies to sonic booms (impulsive noise). Unlike the Guest and Slone study, the Fenton and Methold study developed criteria to assess the likelihood of structural damage. To create the criteria, the study reviewed previous similar studies, relevant British Standards, and academic literature, and it ultimately relied on the U.S. Bureau of Mines and British Industry Standards as key information sources. There is consensus that damage becomes improbable below 140 dB. No glass or plaster damage is expected below 140 dB. At sonic boom overpressures below 1 psf, no damage to structures is expected. At less than 2 psf, damage to structures is extremely unlikely (Haber & Nakaki, 1989). There is a 1/10,000 probability of breakage for a large window at approximately 2 psf and a 1/10,000 probability of breakage for a small window at approximately 4 psf (USACE, 1989). Windows that are pre-damaged or in poor condition could possibly exhibit progression of damage over multiple exposures to booms between 2 and 4 psf (Higgins, 1965). At 10 psf, superficial damage to brittle structural elements such

Issue ID: 4	Issue Name: Noise			
Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
				as plaster and damage to windows becomes more likely but is generally still expected to be very low probability and predominantly due to poor existing conditions such as pre-cracked, prestressed, older and weakened, or poorly mounted windows (Maglieiri et al., 1966; White, 1972; Benson, 2013; Fenton & Methold, 2016). Damage associated with noise and sonic booms is typically limited to lightweight or brittle structural elements, such as windows and plaster. More massive structural elements (e.g., elements providing structural integrity) are affected by noise and sonic booms to much a lesser degree. The FAA requires SpaceX to maintain insurance in the unlikely event of claims of property damage resulting from flight of the Starship-Super Heavy launch vehicle. Property owners may contact SpaceX directly (insurance@spacex.com) to submit claims and evidence in support of the damage claim.
Angela Taiclet	FAA-2024-1395-0082-0002	Plus both of our houses are showing various impacts from vibrations, from the frequent SpaceX heavy launches - we are Seeing a lot of new cracks in grout lines, some new cracks in drywall areas, loosened roof fasteners, etc. I know we probably couldn't prove this, but we didn't See any of these issues at such an extreme volume, before the current high volume of heavy launches.	NO-1	See response NO-1.
Anonymous	FAA-2024-1395-0089-0001	1. Direct Impacts on My Residence Since the increase in heavy rocket activity at Kennedy Space Center, I have personally observed structural damage to my home, including: Cracks in my exterior walls, Fractures in the interior ceiling, and Concrete cracking in my garage and driveway. These issues have emerged in the timeframe of frequent heavy-lift launches and tests, suggesting a correlation between the noise, vibration, and shock	NO-1	See response NO-1.

Issue ID: 4	Issue Name: Noise			
Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
		effects of rocket launches/landings and the damage to residential structures.		
Anonymous	FAA-2024-1395-0281-0037	It is not clear whether older construction types (e.g. ranch homes from 1950-1975, wooden framed houses, single-paned windows) were included in structural and noise exposure testing. These buildings are particularly vulnerable.	NO-1	See response NO-1.
Anonymous	FAA-2024-1395-0281-0042	What are the thresholds used to decide whether a building component is at risk of damage (e.g. maximum overpressure impulse in psi or pascals, duration, frequency content)? How were those thresholds determined (literature, standard building codes, past empirical damage)?	NO-1	See response NO-1.
Anonymous	FAA-2024-1395-0281-0080	What thresholds of overpressure impulse (pressure magnitude, rise time, frequency content) were used to assess structural damage potential? What standard references or building code data support those thresholds?	NO-1	See response NO-1.
Anonymous	FAA-2024-1395-0436-0021	What are the thresholds used to decide whether a building component is at risk of damage (e.g. maximum overpressure impulse in psi or pascals, duration, frequency content)? How were those thresholds determined (literature, standard building codes, past empirical damage)?	NO-1	See response NO-1.
Anonymous	FAA-2024-1395-0436-0042	What thresholds of overpressure impulse (pressure magnitude, rise time, frequency content) were used to assess structural damage potential? What standard references or building code data support those thresholds?	NO-1	See response NO-1.
Burris	PublicMeeting-082825-0006-0005	I don't think they're taking into consideration enough on, and they're not talking about it, I hear a lot of environmental talk, but they're not talking about what's going to happen to people's homes when something with 35 engines. We know what happens in our homes	NO-1	See response NO-1.

Issue ID: 4	Issue Name: Noise			
Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
		now with 9 engines, I don't think they're even taking into consideration damage to people's homes with 35 engines going up and this gigantic sonic boom when it comes in afterwards.		
Derek Newsome	FAA-2024-1395-0122-0001	It also only briefly considers the damage from the Lmax noise during liftoff, which could severely affect growing areas such as Historic Downtown Titusville. Falcon 9 launches can already provide a quite significant amount of noise during launch for those who live nearby, such as myself, but mostly stays below uncomfortable levels during flights. Starship would be in excess of 10 times louder than Falcon 9 at comparable distances, creating high risk for those who live nearby the proposed launch sites.	NO-1	See response NO-1.
Whitmore	PublicMeeting-082625-0011-0006	Well, what's this impact about windows and things like that, is that going to -- how's that going to affect our homes, you know, if something like that happens.	NO-1	See response NO-1.
Angela Taiclet	FAA-2024-1395-0082-0001	I'm quite sure the percentages on page 24 of the "SpaceX-39A-EIS_In-Person_Meeting_Slides" are way too low, where it says: "Up to 14% awakened if windows open and 10% if windows closed at off installation locations studied." Where did they get these percentages? Was there a questionnaire that I missed, polling all Merritt Island residents?	NO-2	Probabilities of awakening were estimated using conservative estimation methods, which are described in EIS Section 3.2.1. The Federal Interagency Committee on Aviation Noise has recommended a conservative quantitative method for estimation of behavioral awakenings (which is indicated by the awakened test subject pushing a button) in residential settings associated with sounds that are new to an area. According to the conservative method published by the Federal Interagency Committee on Aviation Noise (1997), and assuming that structures provide at least 15 dB noise level reduction, less than 16 percent of people sleeping indoors are expected to be awakened by exterior noise levels of up to 110 dBA SEL, and less than 11 percent of people sleeping indoors are awakened by exterior noise levels up to 100 dBA SEL. It is worth noting that the sensitivity of an individual as well as their familiarity with the sound affect the probability of awakening. The exact numbers cited in the

Issue ID: 4	Issue Name: Noise			
Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
				EIS are the result of noise modeling as described in EIS Section 3.2.4.
Fred Goldstein	FAA-2024-1395-0083-0007	Sonic booms generated during Starship-Super Heavy landings would exceed 4 psf— approximately equivalent to the 140 dB criteria level—in some privately owned portions of Merritt Island and the City of Cape Canaveral. However, as noted in Section 3.2.1, sonic boom sound energy is primarily at low frequencies, which do not interact strongly with the human hearing mechanism (DNWG, 2024). Based on research summarized by the DoD Noise Working Group, the high-frequency noise energy in sonic booms of intensities associated with typical vehicle overflights is not sufficiently high to harm hearing mechanisms (DNWG, 2024). Sonic booms ranging from 50 psf to 144 psf (generated by fighter aircraft overflights as low as 85 feet above ground level) caused no direct injury to exposed researchers (Nixon, Hille, Sommer, & Guild, 1968) I would update this with more recent studies. The Nixon, Hill, Sommer, & one is nearly 60 years old.	NO-3	The noise analyses presented in the EIS utilize the best available information, as required by NEPA.
Richard D. Horner	PublicMeeting-082825-0016-0004	And, of course, has the analysis of the sound impacts, particularly sonic booms, been really fully evaluated, particularly on communities like Titusville and others?	NO-4	EIS Section 3.2.4 provides analyses of noise and sonic booms and the potential effects on the local community.
Tracy Portz	TEMP-0004-0004	Noise Pollution Averaging around 97 Decibals- Fireworks can be up to 150 decibals - at this level hearing loss happens, especially over repeated times- prolonged experiences. Hear protection will be given out to those close to the site- What about the public living near this launch site ? What about the public schools.	NO-4	See response NO-4.
Eden Bentley	FAA-2024-1395-0130-0002	Although there was a mention of noise mitigation, nothing addressed the vibrations that will surely impact residents of the surrounding areas. While I am not an	NO-6	The potential for noise to induce vibrations in structures and objects is discussed in EIS Section 3.2.3, for existing operations and in EIS Section 3.2.4, for the Proposed Action.

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Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
		engineer, all residents in north and central Brevard County experience vibrations during and after rocket launches. The Falcon Heavy will be far bigger and more powerful than the rockets currently being launched from Brevard County, Florida. Windows rattle and houses vibrate from the existing launches in this area.		Noise-induced structural vibration may cause annoyance to building occupants because of induced secondary vibrations, or "rattle," of objects within the building—hanging pictures, dishes, plaques, and bric-a-brac. Rattling objects are more likely for sounds that last several minutes at greater than 110 dB L_{max}. Predicting whether an object will rattle when subjected to noise depends on several characteristics of the object and setting (e.g., mass of the object, firmness-of-fit of in supporting structure), characteristics of the structure (heavier structural elements respond less strongly), and characteristics of the noise (e.g., predominant frequencies and intensity). Although rattling of objects does occur during ongoing rocket operations and would occur with proposed Starship-Super Heavy operations, it is not necessarily associated with damage.
Burris	PublicMeeting-082825-0006-0007	The lady I just spoke to said somebody had brought up damage to pipes. And I said that where I live in Merritt Island we have septic tanks, and they're old septic tanks and the county is trying to replace them. We have no idea what the size of that rocket going up is going to do to any substructure like that. There's no -- there's nothing being reviewed for that at all.	NO-7	Ground vibration is discussed in EIS Section 3.2.4.2.2. The probability of structural damage occurring to structures located on KSC/CCSFS or outside the boundaries of KSC/CCSFS because of noise and vibrations generated by the Proposed Action would be low, as would potential effects to pipes and septic systems outside KSC/CCSFS property. The FAA requires SpaceX to maintain insurance in the event of claims of structural damage. In the unlikely event that damage to a structure on KSC/CCSFS or outside the boundaries of KSC/CCSFS were to occur because of Starship-Super Heavy operations, property owners may contact SpaceX directly to submit claims and evidence in support of the damage claim.
City of Cape Canaveral	FAA-2024-1395-0288-0007	The City is also concerned about the reasonably foreseeable effects of repeated heavy-lift launches, landings, and sonic booms on Cape Canaveral's aging municipal infrastructure. The City operates one wastewater water treatment plant, miles of gravity sewer pipeline, miles of force main pipes, eleven lift stations, and miles of reclaimed water pipelines. These	NO-7	See response NO-7.

Issue ID: 4	Issue Name: Noise			
Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
		systems are already under strain from age and coastal conditions, and repeated exposure to vibrations and overpressure could accelerate wear, cause damage, or disrupt service.		
Anonymous	FAA-2024-1395-0281-0043	When did baseline noise and structural monitoring occur? Begin date, end date, number of nights sampled, variety of meteorological conditions (wind, humidity, temperature), and calibration/QA for instruments used.	NO-8	The baseline noise analysis is presented in EIS Section 3.2.4.1. No structural monitoring was conducted; the Starship-Super Heavy vehicle has not yet launched at LC-39A to conduct structural monitoring. There is a plan to monitor historic structures as part of the NHPA Section 106 Consultation provided in Appendix B.
Anonymous	FAA-2024-1395-0436-0022	When did baseline noise and structural monitoring occur? Begin date, end date, number of nights sampled, variety of meteorological conditions (wind, humidity, temperature), and calibration/QA for instruments used.	NO-8	See response NO-8.
Anonymous	FAA-2024-1395-0281-0044	What health impact assessments exist regarding chronic exposure to sleep disruption for vulnerable populations (veterans with PTSD, children with autism or sleep disorders, elderly)? Is there empirical data or literature modeling repeated awakenings, physiological stress, or cumulative harm?	NO-9	DEIS Section 3.2.1 acknowledges that the probability of awakening varies with the sensitivity of the individual; the section also describes the conservative methods that were used to estimate the percent of the overall population that could experience sleep disturbance. Text has been added describing ongoing research on possible linkages between sleep disturbance due to aircraft/rocket noise and certain health outcomes.
Indian River Lagoon Roundtable	FAA-2024-1395-0277-0010	Noise and Vibration Local residents are highly concerned about the noise levels associated with Starship launches and landings. A recent sound study of Starship Super Heavy Acoustics published by Dr. Kent Gee of BYU uses empirical data collected during Starship test flights to predict sound levels above 125 dbA on the Titusville mainland. This exceeds levels allowed by local noise ordinances and should be reduced by at least 25 dbA.	NO-10	As noted in EIS Section 3.2.1, the State of Florida, counties near KSC, and local jurisdictions near KSC have not established maximum noise level limitations that apply to rocket operations, which are conducted in conformity with applicable Federal and state regulations. A paper by Dr. Kent Gee and others published in February 2025 and titled “Starship Super Heavy acoustics: Comparing launch noise from Flights 5 and 6” includes caveated estimates of Starship launch unweighted maximum noise levels (denoted in the paper as L_{Zmax})overlaid on a map of the Florida coast, and those estimated levels are lower than launch unweighted maximum noise levels presented in the

Issue ID: 4	Issue Name: Noise			
Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
				EIS. For example, Figure 4b of the Kent Gee paper depicts the 120 dB L_{max} noise contour affecting portions of Merritt Island, while the EIS Figure 3.2-9 shows the 120 dB L_{max} noise levels extended further into the Banana River. Predicted noise levels presented in the EIS were calculated using methods approved by the FAA's Office of Environment and Energy and are noted as being conservative.
Lewis Kontnik	FAA-2024-1395-0300-0004	The issue of Noise and Vibration does not seem to have been realistically evaluated. Apparently, a recent launch sound study by Dr. Kent Gee, indicates that sound levels during a Starship launch could reach 125 dba in Titusville, an unacceptable level. It is not clear that the sonic booms from landings have been evaluated. This issue could profoundly affect Titusville and other surrounding N. Brevard communities.	NO-10	See response NO-10.
Anonymous	FAA-2024-1395-0281-0040	Please provide a breakdown of building stock in affected zones by construction age, materials, structural type (wood frame, masonry, brick, stucco, siding) and condition. How many homes built before 1975, or even before 1960, are within the high noise / overpressure contours?	NO-11	See response NO-1. While the noise analyses account for the types of structures potentially affected, a comprehensive breakdown of building stock in affected zones was not conducted and is not necessary to determine the potential effects to structures from noise/vibration. Knowing the year in which a structure was built does not provide definitive information regarding how likely the structure may be damaged by noise; windows may have been replaced and some older structural elements are more resilient than newer materials. Additionally, NEPA only requires the use of best available data. The area affected by elevated noise levels includes several counties; no uniform dataset exists that provides construction dates for all structures on all parcels within the entire ROI.
Anonymous	FAA-2024-1395-0281-0078	For affected neighborhoods, how many homes were built before 1975, or before 1960? Provide data for building age and condition.	NO-11	See response NO-11.
Anonymous	FAA-2024-1395-0436-0040	For affected neighborhoods, how many homes were built before 1975, or before 1960? Provide data for building age and condition.	NO-11	See response NO-11.

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Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
Anonymous	FAA-2024-1395-0281-0038	The EIS gives no detailed account of age distributions of homes and buildings in areas projected to have high noise exposure or overpressure zones. Without knowing how many homes are old or of vulnerable construction, risk may be underestimated.	NO-11	See response NO-11.
Anonymous	FAA-2024-1395-0436-0015	It is not clear whether older construction types (e.g. ranch homes from 1950-1975, wooden framed houses, single-paned windows) were included in structural and noise exposure testing. These buildings are particularly vulnerable.	NO-11	See response NO-11.
Anonymous	FAA-2024-1395-0436-0016	The EIS gives no detailed account of age distributions of homes and buildings in areas projected to have high noise exposure or overpressure zones. Without knowing how many homes are old or of vulnerable construction, risk may be underestimated.	NO-11	See response NO-11.
Anonymous	FAA-2024-1395-0436-0019	Please provide a breakdown of building stock in affected zones by construction age, materials, structural type (wood frame, masonry, brick, stucco, siding) and condition. How many homes built before 1975, or even before 1960, are within the high noise / overpressure contours?	NO-11	See response NO-11.
Harry Prosser	FAA-2024-1395-0373-0004	Assess infrastructure vulnerability (residential and public buildings) and map predicted hazard zones.	NO-11	See response NO-11.
Anonymous	FAA-2024-1395-0436-0024	Who performed peer review and structural engineering sign-off? Were reports stamped by licensed Professional Engineers (structural, acoustic)? Who are they, what are their qualifications, and are those reports publicly available?	NO-12	See response NO-12.
Anonymous	FAA-2024-1395-0281-0045	Who performed peer review and structural engineering sign-off? Were reports stamped by licensed Professional Engineers (structural, acoustic)? Who are they, what are their qualifications, and are those reports publicly available?	NO-12	Structural testing was not conducted as part of this NEPA review. Noise analyses rely on the Noise Assessment included in EIS Appendix C and other published studies regarding noise and vibration, as noted throughout EIS Section 3.2.

Issue ID: 4	Issue Name: Noise			
Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
Anonymous	FAA-2024-1395-0281-0081	Who licensed the structural engineering work; were PE-stamped reports prepared?	NO-12	See response NO-12.
Anonymous	FAA-2024-1395-0436-0043	Who licensed the structural engineering work; were PE-stamped reports prepared?	NO-12	See response NO-12.
Anonymous	FAA-2024-1395-0281-0079	Were plumbing systems in older homes tested under modeled noise/overpressure/vibration loads? What materials (copper, PVC, metal fittings), what conditions (temperature, age, corrosion), what joint types and fixtures were included?	NO-13	There was no field testing of plumbing systems, materials (copper, PVC, metal fittings), or joint types and fixtures. See response NO-7.
Anonymous	FAA-2024-1395-0281-0077	It is unclear whether plumbing systems—pipes, joints, fixtures anchored to framing—were assessed for vibration or acoustic overpressure exposure, which could weaken sealants or cause leaks.	NO-13	See response NO-13.
Anonymous	FAA-2024-1395-0436-0039	It is unclear whether plumbing systems—pipes, joints, fixtures anchored to framing—were assessed for vibration or acoustic overpressure exposure, which could weaken sealants or cause leaks.	NO-13	See response NO-13.
Anonymous	FAA-2024-1395-0436-0041	Were plumbing systems in older homes tested under modeled noise/overpressure/vibration loads? What materials (copper, PVC, metal fittings), what conditions (temperature, age, corrosion), what joint types and fixtures were included?	NO-13	See response NO-13.
United Launch Alliance, LLC. United Launch Services, LLC	FAA-2024-1395-0376-0024	The Draft EIS recognizes that the Proposed Action may cause "interference with activities, such as conversation, watching television, or sleeping may occur because of proposed annual Starship-Super Heavy operations, booster static fire tests, and Starship static fire tests, with maximum noise levels as high as 97 dBA and sonic boom overpressures as high as 4.8 psf at locations studied outside of KSC/CCSFS." [Footnote 57: Id., p. 3-35.] This characterization downplays adverse and cumulative impacts of noise events. The Draft EIS fails to explicitly state that the adverse effects of cumulative noise on members of the community is a	NO-14	EIS Section 3.2.4 provides analyses of noise and sonic booms and the potential effects on the local community, and states that noise effects would be significant based on FAA criteria. "Cumulative impacts" are addressed in EIS Section 3.2.4.2.3 as "reasonably foreseeable effects," with reasonably foreseeable actions addressed in EIS Section 2.2. NEPA does not require mitigation to be imposed on an applicant and the FAA does not have a noise mitigation program for commercial space actions like it does for airports; however, potential noise mitigations are identified in EIS Section 3.2.5.

Issue ID: 4	Issue Name: Noise			
Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
		significant impact under NEPA, requiring effective mitigation.		
DOI	FAA-2024-1395-0296-0035	The NPS recommends including the following "Supplemental metrics", allowable under FAA's Order 1050.1 F, Environmental Impacts: Policies and Procedures: Time Audible (Taud) for each launch and landing event, as experienced from representative sites within each noise-sensitive area Time Above (TA) the following levels, as experienced from representative sites within each noise-sensitive area: 35 dBA (level at which aircraft noise affects the visitor experience in a natural acoustic environment; Pilcher et al., 2009; Watts et al., 2020; Betchkal et al., 2023); 40 dBA (the level at which wildlife begin to show responses to noise; Shannon et al. 2016); 52 dBA (speech interference for interpretive programs; EPA 1974); 60 dBA (speech interference for normal conversation; EPA 1974).Stevens Perceived Level for sonic booms as experienced at representative noise- sensitive locations	NO-16	The EIS incorporates several supplemental metrics that describe various aspects of the acoustic environment (e.g., maximum noise level). The time audible metric is not supported by the current version of the noise model used for this analysis (RNOISE). Furthermore, time audible values depend on ambient sound levels at the time the noise occurs. Because ambient sound levels are highly variable within the study area (across different times and locations) and are not known with a high degree of accuracy, any time audible calculations would likely be inaccurate.
DOI	FAA-2024-1395-0296-0031	(Appendix C.1 Noise Report Part 1)Page #: 22 Comment: The noise analysis claims that "The waveform at the ground is generally an "N-wave" pressure signature." However, recent research (Anderson et.al., 2025) finds that booster flyback sonic booms, such as those produced by Starship-Super Heavy contain three primary shocks, or an "M-wave" signature instead of an N-wave. As noted by Anderson et al., "Sonic boom prediction software, like NASA's PCBoom software, has generally been designed and validated for use with air-breathing, aerodynamic-lift-producing jet aircraft, rather than rockets and reentry vehicles," leaving "whether the physics are fully understood and modeled an open question." Given this	NO-17	Sonic boom waveforms generated by Super Heavy Booster and Starship landings are different than an "N wave" waveform (i.e., two-part shockwave) typically generated by a supersonic aircraft in a quiescent atmosphere. Launch vehicle booster landings, including the Falcon 9 booster, generate a sonic boom waveform with three distinct shockwaves created by different parts of the vehicle as it reenters the atmosphere. These separate shockwaves create a single, three-part boom at the ground. The maximum overpressure levels (peak level in the predicted boom signature, measured in psf) reported for Super Heavy Booster and Starship landings represent the vehicle's leading-edge shock, rather than the middle shock, which is lower in magnitude. It is worth noting that any sonic boom

Issue ID: 4	Issue Name: Noise			
Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
		uncertainty, the NPS recommends that the DEIS include an acknowledgement that existing sonic boom modeling software may not be capable of predicting the unique properties of booster-flyback sonic booms. Anderson, Mark C. and K. L. Gee. 2025. Why does the Falcon-9 booster make a triple sonic boom during flyback? An initial analysis. JASA. 5(2) https://doi.org/10.1121/10.0035649)		waveform, whether generated by an aircraft or a landing spacecraft, can become distorted in magnitude and shape by localized atmospheric turbulence effects. Lastly, as noted in DEIS Section 3.2.4, the computer program PCBoom has been approved by the FAA for use in modeling of sonic booms generated by supersonic segments of launch and landing operations. The use of PCBoom represents the “best available science” as required by NEPA.
DOI	FAA-2024-1395-0296-0005	Page #: 3-10 Comment: The DEIS identifies PCBOOM as the software used to model sonic booms. However, recent research (Anderson et al., 2025) finds that booster flyback sonic booms, such as those produced by Starship-Super Heavy, contain three primary shocks, or an "M-wave" signature instead of an N-wave. As noted by Anderson et al., "Sonic boom prediction software, like NASA’s PCBoom software, has generally been designed and validated for use with air-breathing, aerodynamic-lift-producing jet aircraft, rather than rockets and reentry vehicles," leaving "whether the physics are fully understood and modeled an open question." Given this uncertainty, the NPS recommends that the DEIS include an acknowledgement that existing sonic boom modeling software may not be capable of predicting the unique properties of booster-flyback sonic booms.	NO-17	See response NO-17.
DOI	FAA-2024-1395-0296-0032	(Appendix C.1 Noise Report Part 1) Page #: 79 Comment: The analysis states, "Boom levels on CCSFS and KSC properties would range from 4 to 10 psf in areas away from the landing pad." As portions of CANA fall within the 10 psf contour, NPS feels that this should be acknowledged in the analysis.	NO-18	This has been acknowledged within the context of Section 3.2.
DOI	FAA-2024-1395-0296-0006	Page #: 3-15 Comment: The DEIS lists the areas that would be exposed to booster static fire test noise levels exceeding 110 dB Lmax, but only lists cities affected. Figure 3.2-4 indicates that parts of CANA is inside the	NO-18	See response NO-18.

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		120 dB Lmax contour. Similarly, areas experiencing 90 dB LAmax or 90 dB A-weighted SELs is listed as cities and some privately owned lands. Based on Figures 3.2-4 through 3.2-6, it appears as though portions of CANA and MINWR also fall within these contours. Thus, NPS recommends that they be named in these lists.		
DOI	FAA-2024-1395-0296-0008	Page #: 3-20 Comment: The DEIS lists areas that would be exposed to launch noise levels exceeding 100 dB ASEL and 110 dB unweighted Lmax, but only includes cities. Based on Figures 3.2-8 and 3.2-9, nearly all of CANA and MINWR also fall within these contours. Thus, NPS recommends that they be named in these lists. Likewise, pg. 3-20 also lists areas that would be exposed to landing noise levels exceeding 90 dB LAmax, 90 dB ASEL, and 110 dB Lmax, but does not include the portions of CANA and MINWR that fall within these contours. NPS recommends that they be named in these lists.	NO-18	See response NO-18.
DOI	FAA-2024-1395-0296-0012	Page #: 3-40 Comment: NPS recommends adding the clause “including CANA” to the statement “Representative locations on KSC/CCSFS would be exposed to higher Lmax and psf values, as shown in Table 3.2-11 and Table 3.2-6, respectively,” i.e. “Representative locations on KSC/CCSFS, including CANA, would be exposed...”	NO-18	See response NO-18.
DOI	FAA-2024-1395-0296-0007	Page #: 3-18 Comment: Figure 3.2-13 suggests that locations within CANA have the potential to experience quite loud sonic booms (2-10 psf) during Super Heavy Booster landings, and Table 3.2-6 lists the potential sonic boom overpressure level of 10.1 psf at Playalinda Beach in CANA during Booster landings. However, the text on p. 3-20 discussing "landings" fails to mention this, only describing areas that may experience sonic booms in excess of 1 psf. NPS highly recommends that	NO-18	See response NO-18.

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		the DEIS disclose the potential sonic boom values for CANA and MINWR in this portion of text because although the area will be closed to visitors during these noise events, wildlife will still be impacted.		
Friends of Canaveral, Inc.	FAA-2024-1395-0298-0016	Beyond general disturbance, the DEIS does not adequately analyze how repeated high-decibel events and sonic booms may cumulatively impact human health, historic structures, marine mammals, and cultural resources. The lack of assessment of how these sonic and noise disturbances may adversely impact marine mammals is particularly egregious given the noteworthy and nationally important marine life that the area is home to. Repeated sonic booms and vibrations from Starship operations can transmit into surrounding waters, creating underwater noise that disrupts communication, feeding, and migration of protected marine mammals, such as the critically endangered Right Whale which uses adjacent waters for calving in the early part of the year. Courts have held that the Marine Mammal Protection Act (MMPA) requires adequate mitigation for such impacts.	NO-19	The EIS addresses “cumulative impacts” as “reasonably foreseeable effects” per recent NEPA guidance. Each resource section (including health and safety, historic structures, and biological resources) has a subsection addressing reasonably foreseeable effects based on the list of reasonably foreseeable actions provided in EIS Section 2.4. Appendix B of the EIS provides both ESA and MMPA consultation documentation with the USFWS and NMFS, respectively. Note that data regarding long-term repeated exposure of overpressures of these magnitudes is unavailable, and both the NHPA and ESA consultations include monitoring requirements.
United Launch Alliance, LLC. United Launch Services, LLC	FAA-2024-1395-0376-0019	Exposure to the sonic boom environment, that is not Seen in flight, may invalidate the qualification of the launch vehicle. This could result in launch hardware requalification efforts. The noise and sonic boom consequences of the Proposed Action are severely underestimated and not sufficiently addressed in the Draft EIS.	NO-20	Propulsion noise and sonic booms are a part of the existing environment at KSC/CCSFS, as described in Section 3.2.3. Noise and vibration associated with the proposed operations include activity interference and impacts associated with structural vibrations, as described in Section 3.2.4. As noted in the DEIS Section 3.2.4, the FAA requires SpaceX to maintain insurance in the event of claims of property damage. In the unlikely event that damage to a structure on KSC/CCSFS or outside the boundaries of KSC/CCSFS were to occur because of Starship-Super Heavy operations, property owners may contact SpaceX directly to submit claims and evidence in support of the damage claim.
United Launch Alliance, LLC.	FAA-2024-1395-0376-0018	Starship-Super Heavy launches and reentries will produce significant noise and sonic booms at KSC. The	NO-20	See responses NO-20 and MT-3.

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United Launch Services, LLC		Draft EIS dismisses further analysis of on-base impacts through a compatibility rationale, asserting that the compatibility between the Starship-Super Heavy launch vehicle and the vehicles currently launching from KSC and CCSFS warrant no additional analysis. This approach is legally faulty and arbitrary. ULA's facilities and hardware, and the most directly impacted facilities such as the ULA launch pad, Ready Room engineering building, and VIFs A and G which integrate commercial and national security payloads respectively, are located within the relevant contour for severe sonic booms and launch noise. These facilities, like others at KSC, were built to withstand current launch conditions from present-day launch vehicles. They were not designed and built to sustain the repetitive sonic booms of Starship-Super Heavy's magnitude, much less at the proposed frequent launch cadence. The Draft EIS arbitrarily dismisses these impacts to facilities on the faulty basis that they are located in a compatible land use area. [Footnote 27: See, e.g., Nat. Res. Def. Council, Inc., 457 F. Supp. 2d at 228-31 (finding the agency responsible for the EA engaged in arbitrary and capricious actions because it assumed the proposed action was a similar use).]		
DOI	FAA-2024-1395-0296-0009	Page #: 3-28 Comment: While the "Activity Interference" paragraph does acknowledge that "Locations on KSC/CCSFS (including MINWR and CANA) would experience elevated noise levels and sonic booms during proposed rocket operations", NPS believes that the remaining clause ("would be expected to be disturbing for those unaware of pending rocket operations") belies the true nature of the modeled values and likely effects on visitors, wildlife, and structures. Sonic boom overpressure values of around 10 psf are extremely loud and extremely startling,	NO-22	See response NO-17 (regarding "M waves"). DEIS Section 3.8, discusses potential sonic boom effects on biological resources, such as nests, shells, and delicate natural structures (e.g., burrows). See response NO-1 (regarding potential for structural damage). Sonic boom intensity is quantified in the DEIS and the potential to disrupt or startle humans and wildlife is discussed in several EIS sections. The FAA is not aware of a basis for describing disturbance as "acute" or "severe." Some

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		equivalent to a Perceived Level of around 127 dB (for N-wave aircraft), nearing the loudness of a gunshot from 2 feet away (Doebler et.al., 2020). To our knowledge, no research has been conducted on the effect of or perceived loudness of M-shaped sonic booms -- a notable gap in understanding of the effects of noise generated by Starship-Super Heavy spacecraft. A gunshot from 2 feet away would not be merely "disturbing for those unaware of pending rocket operations", but could cause severe stress and/or harm for people, wildlife, and structures exposed to it. (As noted on p. 3-4 of this DEIS, superficial damage to brittle structures is possible with sonic booms of 10 psf. To our knowledge, no research has been conducted on the effects of sonic booms overpressure levels on nests, shells, and other brittle or delicate natural structures.) With all of this in mind, the NPS strongly encourages the FAA to consider rewording this statement to admit to the very high values modeled for sonic booms at CANA and the potentially severe effects, perhaps using the wording: "which would have the potential to cause severe, acute disturbance, stress, or harm." We also recommend including a sentence regarding the uncertainty about the perceived loudness and effects of triple boom M-waves, for example, "These sonic booms are likely to be triple boom M-waves, whose effects are currently poorly understood" (Anderson et.al., 2024).		stress is implied when a disturbance occurs, but stating that unspecified “harm” could occur would be unclear and unsupported. The USFWS Biological Opinion located in EIS Appendix B identifies take (including harm) of some ESA-listed species.
Friends of Canaveral, Inc.	FAA-2024-1395-0298-0017	Recent research confirms that anthropogenic sound, including sonic booms, causes measurable harm to marine mammals through behavioral disturbance and stress. The FEIS must: (1) evaluate structural integrity risks to historic/archaeological resources; (2) address public health consequences of nighttime awakenings; (3) robustly analyze underwater noise impacts to marine mammals under the Marine Mammal	NO-23	Potential impacts to historic/archeological resources are discussed in EIS Section 3.5; the resulting Programmatic Agreement includes monitoring requirements to further assess the effects of Proposed Action operations. See response NO-9 (regarding public health and awakenings).

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		Protection Act; and (5) commit to adaptive management with enforceable monitoring to ensure real-world noise and vibration effects are captured and mitigated.		Appendix B of the EIS provides ESA and MMPA consultation documentation with the USFWS and NMFS, respectively—both of which include monitoring requirements to further assess the effects of Proposed Action operations. As stated in EIS Section 3.1, implementation of identified mitigations, such as monitoring, would utilize an "adaptive management" approach, wherein continuous data gathering and analyses would be utilized to improve future management strategies within the action area.
United Launch Alliance, LLC. United Launch Services, LLC	FAA-2024-1395-0376-0023	The Draft EIS admits that community impacts will be significant and unavoidable. For Starship-Super Heavy launches, the Draft EIS contradictorily concludes: "[h]owever, due to the estimated levels and frequency of events, these individual noise events are not expected to cause general annoyance or pose health concerns, though noise complaints may occur[.]" [Footnote 55: Draft EIS, Vol. 2, App. C.1, Part 1, p. 7.] For Starship- Super Heavy booster and spacecraft landings, the Draft EIS concludes that sonic boom impacts would be considered significant in areas like Cape Canaveral, Cocoa Beach, Cocoa, and parts of Titusville. Noise complaints are a significant measure of general annoyance, and the Draft EIS statement understates the impacts of the Proposed Action. The Draft EIS fails to address significant non-acute health effects and physiological and psychological responses to noise, especially the 82% wakening rate and startle response from sonic booms. The proposed mitigation measures, including advance notification of upcoming launch events or the application of workplace-type noise standards, are an inadequate substitute for assessing the real and sustained impacts to a community that is likely to experience significant disruptions from the	NO-25	Due to the estimated levels and frequency of events, these individual propulsion noise events would not result in noise levels exceeding the 65 dB DNL threshold and are not expected to pose health concerns, though noise complaints may occur. See response to NO-9 (regarding non-acoustic health impacts). As noted in the comment, the DEIS identifies significant impacts. Mitigation measures are listed in Section 3.2.5.

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		Proposed Action. Comparison to historic norms for Brevard County highlights the understatement. The community will unavoidably be exposed to: (1) launches from the Starship-Super Heavy vehicle with three times the thrust of Saturn V, (2) sonic booms twice the magnitude of the shuttle returns, and (3) sonic boom events at an unprecedented cadence. [Footnote 56: Id., p. ES-27.]		
DOI	FAA-2024-1395-0296-0030	(Appendix C.1 Noise Report Part 1)Page #: 22 Comment: The noise analysis refers to a separate study and report for baseline noise levels used in the analysis: "Cape Canaveral Space Force Station and Kennedy Space Center DNL Noise Contours." The NPS requests that the DEIS disclose how to obtain a copy of this report, as it does not appear to be publicly available.	NO-26	The baseline operational scenario (e.g., annual numbers, types and locations for launches, landings, and static fire events) and noise levels are described in the DEIS (including Appendix C.1). Noise results were calculated using the methods described in EIS Section 3.2.4, and in Appendix C.1. A limited number of field studies have been conducted on sleep disruption and associated health effects in communities around airports. One study is the FAA's National Sleep Study, which is investigating the effects of aircraft noise on sleep. The FAA will utilize the information from the National Sleep Study to derive the verifiable data to inform of any potential updates to or validation of the national aviation noise policy. A preliminary paper on the sleep study protocol (Basner et al., 2023) describes the study design and summarizes prior research on the effects of nighttime noise exposure on sleep and health. The paper notes that several of the studies currently available were conducted outside of the United States and that, due to differences in culture and housing structure, as well as operational procedures, the results from studies performed outside the United States may not translate directly to U.S. airports. In general, prior studies on noise and sleep health confirm that nighttime noise events cause sleep fragmentation and shallower sleep. Available research summarized in the paper suggests an association between aircraft noise, particularly nighttime exposure, and increased

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				risk of cardiovascular issues like high blood pressure and heart disease. However, after considering variability and applicability of the results of available studies, the FAA has elected to conduct additional research on potential effects within the United States prior to endorsing any consistent quantitative relationship or updating policies relevant to aircraft noise. Research in this area to date has focused primarily on potential effects on communities near airports, and similar studies have yet to be conducted in communities around spaceports which are exposed to a different type of noise environment. Communities near spaceports are generally exposed to fewer noise events per day than communities near airports; however, the propulsion noise and sonic booms associated with spaceport launch and landing operations are potentially of higher intensity than noise events associated with aircraft operations. Because sleep disruption and associated health effects research is in an early stage of development, and no studies have been conducted for launch site communities, the FAA has not established specific criteria to assess the long-term health effects potentially caused by rocket operations. As noted in EIS Section 3.2.1, *Noise and Noise-Compatible Land Use, Definition of the Resource and Regulatory Setting*, the sensitivity of individuals to noise and sonic booms is highly variable. Individuals of greater than average sensitivity, such as veterans with post-traumatic stress disorder, children with autism or sleep disorders, and the elderly, would be more likely to be awakened by noise events. As noted in EIS Section 3.2.4, *Noise and Noise-Compatible Land Use, Environmental Consequences*, and Noise Report Section 2.1.4.4 and Section 2.2.2.1, the dose-response relationships used to estimate the percentage of

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				the population affected by sleep disturbance are conservative. Cooperating agencies are welcome to request documents in writing from the FAA through existing communications channels.
DOI	FAA-2024-1395-0296-0004	Page #: 3-8 Comment: Table 3.2-2 lists baseline DNL and CDNL values for representative sensitive locations, but the text does not explain how these values were determined – Were they determined measurements or models? If measurements, what type of equipment and what were the recording dates? If acoustic modeling, what program(s) was/were used? The noise analysis (Volume II, Appendix C.1, Part 1) refers to a report by Salton, A. R., James, M. M., and Calton, M.: "Cape Canaveral Space Force Station and Kennedy Space Center DNL Noise Contours," BRRC Report 24-15 (Final), November 2024. However, it is unclear whether this report is publicly available or what methods were used.	NO-26	See response NO-26.
E A H	FAA-2024-1395-0442-0003	Noise & Vibration: We respectfully request FAA to look into the impact of Starship Heavy noise/vibration and cadence and its effects on the chemical weapon munitions dumped at sea referencing the Atlantic Ocean floor explosives and chemical weapons off the east coast of Florida and east coast of the United States.	NO-27	The FAA is not aware of any location(s) in which chemical weapons or explosives may have been dumped and does not know of any avenue by which the Proposed Action could pose a risk to any dumped objects if they exist.
DOI	FAA-2024-1395-0296-0025	Page #: 119 Table 3.2-1 Comment: "Table 3.3-1 lists Playalinda Beach as part of Canaveral National Seashore, however, Table 3.2-1 lists Playalinda Beach as part of KSC. Please revise Table 3.2.1 to identify Playalinda Beach as part of Canaveral National Seashore. Likewise, in Noise Assessment Part 1, pg. 67, "Points of Interest / Noise Sensitive Locations," Playalinda Beach's location is described as "Titusville" and the text	NO-28	This change has been made within the context of Section 3.2; an errata sheet has been added to the noise report in Appendix C.1.3.

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		description refers to it as “located on KCS property.” Please include Playalinda Beach as part of CANA for both entries.		
DOI	FAA-2024-1395-0296-0003	Page #: 3-1 Comment: The DEIS defines noise as merely “unwanted sound.” NPS recommends refining this definition as "unwanted sound that interferes with or disrupts normal human activities as well as wildlife and ecological functioning.” A simpler definition could read “unwanted sound that disrupts the acoustic environment."	NO-29	An unwanted sound would be described as “noise” even if it had no effect; FAA 1050.1 Desk Reference, Chapter 11 describes noise as unwanted sound that can disturb routine activities (e.g., sleep, conversation, student learning) and can cause annoyance. Potential noise effects to humans, structures, wildlife, and ecological functions are described in multiple sections of the EIS.
Anonymous	FAA-2024-1395-0281-0039	Timing: Uncertainty exists over how long noise monitoring was conducted, whether measurements include worst-case weather (wind aloft, temperature inversions) and night-time launch conditions. Insufficient timeline: Baseline noise studies may not cover seasonal or nighttime conditions.	NO-30	Methods used for noise modeling are described in EIS Section 3.2.3, and in Appendix C.1. No noise level monitoring was conducted in support of this project. Appendix C.1 includes assessment of time-varying effects of variable weather conditions on noise levels.
Anonymous	FAA-2024-1395-0436-0017	Timing: Uncertainty exists over how long noise monitoring was conducted, whether measurements include worst-case weather (wind aloft, temperature inversions) and night-time launch conditions.	NO-30	See response NO-7.
Anonymous	FAA-2024-1395-0436-0018	Insufficient timeline: Baseline noise studies may not cover seasonal or nighttime conditions.	NO-30	See response NO-7.
DOI	FAA-2024-1395-0296-0010	Page #: 3-35 Comment: While the DEIS acknowledges “The FAA recognizes that there are settings where the 65 dB DNL standard does not apply. In these locations, DNL land use guidelines should be considered in conjunction with other criteria when assessing compatibility of specific uses,” it fails to list and explain the guidelines, criteria, and metrics used to assess compatibility, simply concluding that the brief duration of noise associated with the proposed action mitigates harm to sensitive land uses. The NPS highly recommends that the DEIS identify what aspects of “sensitive land uses” it uses to conclude that the	NO-31	As stated in Section 3.3.4.2.3., projected effects to land use recreational resources would occur from activity interference from increased noise events/public exposure, increased park access restrictions, closures, and the associated changes to USFWS and NPS staff management priorities (altered by increased launches). However, the FAA does not consider these effects to be significant as they do not permanently preclude the viability or use of the areas or threaten public health or safety. FAA Order 1050.1g states that 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

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		predicted noise associated with the Proposed Action will be compatible with the mission of CANA--a National Park Service unit established to protect wildlife, coastal ecosystems, and the visitor experience including Undeveloped Character and an Uncrowded Setting.		and a quiet setting is a generally recognized purpose and attribute, and due to the nature of the resource has limited options for mitigation.
DOI	FAA-2024-1395-0296-0034	Page #: 3-3 Comment: The statement "Land use noise compatibility analysis considers the effects of noise on special management areas, such as national parks, National Wildlife Refuges (NWRs), and other sensitive noise receptors, where a quiet setting is a generally recognized purpose and attribute." This acknowledges the importance of considering expectations for and effects of noise on natural sounds and a low- energy acoustic environment yet does not provide any metrics for "land use compatibility" at noise-sensitive receptors.	NO-31	See response NO-31.
United Launch Alliance, LLC. United Launch Services, LLC	FAA-2024-1395-0376-0032	The Draft EIS states SpaceX must maintain insurance in the unlikely event of structural damage claims resulting from flight of the Starship-Super Heavy. Property owners may contact SpaceX directly (insurance@spacex.com) to submit claims and evidence in support of a damage claim. [Footnote 84: Draft EIS, Vol., 1, p. 3-5.] Based on this statement, the Draft EIS falls short. At a minimum, the Draft EIS should provide adequate assurances through a description of SpaceX's obligations and the applicable claims process that there will not be a long, drawn-out claims process whereby an aggrieved party is forced to take prompt action to repair damage and self-fund those repairs, only in hopes of reimbursement later through settlement or worse, litigation. To instill confidence in other launch providers that anticipated claims will be timely and fairly addressed, the Draft EIS must describe the process for handling those claims. A general SpaceX	NO-35	The FAA requires that SpaceX carry insurance in the amount of the "Maximum Probable Loss," which is determined on a launch-by-launch basis by the FAA, and is up to $500 million per launch (see 14 CFR Part 440). The FAA requires SpaceX to maintain insurance in the unlikely event of claims of property damage resulting from licensed Starship-Super Heavy operations. Property owners may contact SpaceX directly (insurance@spacex.com) to submit claims and evidence in support of the damage claim. Refer to 14 CFR 440.19 for United States payment of excess third-party liability claims. It is not within the FAA's purview to direct SpaceX's internal operations and it is outside the scope of the NEPA review to assess the adequacy of SpaceX's insurance claims process.

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		email address purporting to identify an internal claims department is insufficient.		
Anonymous	FAA-2024-1395-0436-0020	Were building components tested: windows, frames, doors, exterior plumbing (pipes, joints), roofing, and interior plaster or drywall for response to overpressure and vibration? Under what levels (dB, pressure impulse, frequency spectrum, duration)? Did any tests include plumbing integrity (e.g. joints, solder, seals) under vibration/noise load?	NO-36	See responses NO-1, NO-11, and NO-13.
Harry Prosser	FAA-2024-1395-0373-0001	I urge the FAA to: Require site-specific acoustic modeling of SPL, SEL, overpressure, and vibration propagation for Starship–Super Heavy, validated with plume data and suppression geometry.	NO-37	EIS Section 3.2 discusses the methodology utilized for noise analyses, which includes the identified metrics; specific noise-sensitive points of interest were identified and the results of noise modeling for those points is provided in the EIS.
Anonymous	FAA-2024-1395-0406-0001	I am concerned as to whether the FAA, EPA, or other responsible agency has determined what the impact of repeated vibration will have on the multiple bridges in the area. If the FAA is already acknowledging likely damage to properties and older structures, it would logically follow that the repeated “overpressure” caused by the launches and sonic booms would have a negative impact on the causeways and smaller bridges throughout the area.	NO-38	See response NO-1. While data regarding long-term repeated exposure of overpressures of these magnitudes pertaining to bridges is not available, structures such as bridges are designed to withstand frequency and intensity of vibration and strain from all-day use by vehicles.
Rhonda Memphis	FAA-2024-1395-0084-0003	These are serious concerns, and the cumulative effect of repeated exposure to such powerful forces raises questions about the long-term safety of our homes.	NO-38	See response NO-1. Additionally, building strain also occurs as a result of human activity within structures, as documented and quantified in DOI Report of investigation 8507, *Structure Response and Damage Produced by Ground Vibration from Surface Mine Blasting*. However, the FAA does not have data regarding long-term repeated exposure of overpressures of these magnitudes.
Anonymous	FAA-2024-1395-0111-0001	I appreciate the opportunity to provide public comment and voice my concerns as someone living directly within the affected area. While I understand and support the advancement of space exploration, I	NO-39	See response NO-1. Potential effects to structures will be verified by historic structure monitoring during operations, which will occur for a variety of sound pressure levels based on agreements with the Florida SHPO (see EIS

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		am deeply concerned about the structural impact of sonic booms associated with rocket landings. My home experiences noticeable vibrations during Falcon Heavy launches, with doors and shelving visibly shaking. The return sonic booms place enormous stress on the roof structure, and I fear that repeated exposure could lead to long-term damage. Florida homes, particularly in coastal areas like Merritt Island, are engineered for wind resistance—not load-bearing stress. Unlike homes in northern states, which are built to withstand snow loads with significantly stronger beams, our structures are vulnerable to repeated concussive forces from sonic events. This is not merely a matter of noise pollution—it's a matter of physical integrity and safety.		Appendix B.3.1). Monitoring older, historic structures is expected to provide the best data regarding risk to structural integrity within the study area.
Derek Newsome	FAA-2024-1395-0122-0004	Potential risk of damage to properties at Kennedy Space Center are also drastically understated. The Lmax over the majority of the work areas at KSC exceeds 120db, including multiple sensitive factory spaces such as the Blue Origin Rocket Park, NASA's Vehicle Assembly Building, KSC HQ, O&C Building, Space Systems Processing Facility, ULA's Advanced Spaceflight Operations Center, VIF-A, VIF-G, the US Space Force's Eastern Processing Facility, as well as most of the CCSFS industrial complex. Starship operations in this area would severely affect critical operations for national security, commercial, and civil spaceflight.	NO-40	NASA operates and maintains its infrastructure in accordance with applicable standards and the KSC Master Plan. In addition to continuing to support NASA's programmatic mission objectives, the Master Plan is designed to maximize the provision of excess capabilities in support of non-NASA access to space. NASA will continue to take these stated priorities into consideration when making NASA property and resources available for commercial use. See response NO-1 for additional information regarding noise effects on structures.
Anonymous	PublicMeeting-082825-0012-0003	And the sound waves bouncing off of the VAB. Have they thought about those sonic booms and those waves coming back at those and flight hardware, especially the buildings and all of that stuff out there. Because back in the Shuttle days it would ping. You could hear like ping, ping, ping from over from the VAB over to the OSC and around. So this is just way louder and I am just curious what they are going to do with it.	NO-40	See response NO-40.

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Anonymous	FAA-2024-1395-0159-0002	The Draft EIS has only considered vibrations on historic buildings but has not evaluated the effects of vibrations of the Super Heavy rocket on the tens-of-thousands of local residences. Titusville has an older housing stock which will receive a lot of damage from the Super Heavy rocket. I know SpaceX has established a damage claim program, but will Mr. Musk change his mind and cancel the insurance program later? Will the insurance program actually pay claims, or will SpaceX find a way to deny claims? Just as many Florida insurers have done in the past.	NO-41	See responses NO-1 and MT-3.
Anonymous	FAA-2024-1395-0281-0041	Were building components tested: windows, frames, doors, exterior plumbing (pipes, joints), roofing, and interior plaster or drywall for response to overpressure and vibration? Under what levels (dB, pressure impulse, frequency spectrum, duration)? Did any tests include plumbing integrity (e.g. joints, solder, seals) under vibration/noise load?	NO-42	See responses NO-1 and NP-2.
DOI	FAA-2024-1395-0296-0011	Page #: 3-35 Comment: The DEIS concludes that "the total annual duration of noise would be relatively brief," yet provides no cumulative estimates of the temporal duration of noise. This DEIS proposes a total of 220 launches, static fire tests, and landings, adding more than 2 noise events for every three days per year over the No Action Alternative. Moreover, according to p. 3-42, under the reasonably foreseeable future actions operational scenario, there would be 460 launches, 299 landings, and 671 static fire tests per year. The NPS recommends that the EIS include estimates of Time Above the following metrics, caused by launch and landing events, as anticipated to be experienced at Playalinda Beach: 35 dBA (level at which aircraft noise negative affects the visitor experience in a natural acoustic environment; Pilcher et al., 2009; Watts et al., 2020; Betchkal et al., 2023); 40 dBA (the	NO-43	DEIS Section 3.8.4.2.3 states that individual noise events would be very brief, ranging from less than 1 second for sonic booms to seconds to minutes for launch, landing, and static fire noise; clarity added to EIS Section 3.2. See response NO-16 (regarding adding metrics).

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		level at which wildlife begin to show responses to noise; Shannon et al. 2016); 52 dBA (speech interference for interpretive programs; EPA 1974); 60 dBA (speech interference for normal conversation; EPA 1974). Without these metrics, the NPS feels that the conclusion that there's a "relatively short duration" and that sensitive land uses are being appropriately evaluated cannot be supported.		

Notes: CCSFS = Cape Canaveral Space Force Station; CFR = Code of Federal Regulations; dB = decibels; dBA = A-weighted decibels; DEIS = Draft Environmental Impact Statement; DNL = day-night average sound level; DOI = Department of Interior; EIS = Environmental Impact Statement; ESA = Endangered Species Act; FAA = Federal Aviation Administration; KSC = Kennedy Space Center; L_{max} = maximum sound level; L_{Zmax} = maximum unweighted (Z-weighted) level; MMPA = Marine Mammal Protection Act; NEPA = National Environmental Policy Act; NHPA = National Historic Preservation Act; NMFS = National Marine Fisheries Service; NPS = National Park Service; psf = pounds per square foot; PVC = polyvinyl chloride; ROI = region of influence; SEL = sound exposure level; SHPO = State Historic Preservation Officer; SpaceX = Space Exploration Technologies Corp.; U.S. United States; USFWS = United States Fish and Wildlife Service.

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Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
U.S. Fish and Wildlife Service (Keith Ramos)	TEMP-0029-0006	#8. 2.1.3 Landside Coordination Comment by: MINWR Comments: The document understates the potential maximum number of days that will require closure of the core habitat management areas of Merritt Island National Wildlife Refuge. The impacts of launch operations will likely extend beyond 44 launches per year. Table ES-1 states that the closures without scrubs or delays would likely be 220 (44 launches/booster landings + 44 Starship landings + 88 static fire engine tests + 44 wet dress rehearsals). Realistically, many of these will have to be repeated due to scrubs, weather delays, or other delays. We recommend including the range of potential days for closure of the core habitat management areas on the Refuge.	LU-1	The analysis in the DEIS is an appropriate estimate as it assumes all operations would occur annually. As rocket programs mature, the requirements for activities such as wet dress rehearsals and static fire tests change. Potential scrubs due to ground systems may decrease as those systems mature with increasing launch cadence. As seen with the SpaceX Falcon program, an increased launch rate has substantially reduced the number of static fire tests needed. Across 88 launches in 2024 there were only five static fire tests. Launch scrubs and delays may occur due to weather, equipment issues, conflicting launch operations, and other reasons. The number and timing of launches and delays cannot be estimated due to the many factors involved. Even if additional scrubs due to weather were to occur, under a launch cadence of 44 launches per year, the anticipated reduction in static fire tests would result in no net increase in closures of CANA or MINWR as analyzed in the DEIS. The effect of these closures, to include restricted access and land management activities associated with reasonably foreseeable actions, is addressed in EIS Section 3.3.
United Launch Alliance, LLC. United Launch Services, LLC	FAA-2024-1395-0376-0016	Without full transparency regarding the assumptions and calculations used to establish these access-controlled areas identified in the Draft EIS, it is impossible to determine whether the areas are conservative or not. As a starting point, the FAA should confirm that the explosive yield percentage used for Blast Danger Areas is 100% as previously directed by the DoD Explosive Safety Board. To permit launch operators like ULA to conduct a fair and thorough assessment of the identification of these areas, the Draft EIS should use standard terminology used by the ranges for determining the size of Blast Danger Areas and Flight Hazard Areas and present the supporting data in the traditional manner understood by launch operators.]	LU-1	See response LU-1.

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Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
American Association for Nude Recreation-Western Region	FAA-2024-1395-0399-0003	We are unclear if nude recreation is being protected by limiting the number of SpaceX landings and takeoffs as presented or if this is just a starting point that could lead to many more beach closures than was presented. We disagree with the conclusion that closing the Playalinda Beach from 44 to 60 days will be "insignificant"; this ignores the health benefits of nude recreation (boosts vitamin synthesis, regulars body temperature, reduces stress and anxiety, increasing general well-being), strains on environmental and staffing resources, and does not give the actual or estimated number of beach closure days due to postponements. We advocate for a minimal number of beach closure days if SpaceX expansion occurs.	LU-1	See response LU-1.
Anne Revels	PublicMeeting-082625-0001-0003	There is a lot of closures and much more than what you are saying. Because we all know that flights get scrubbed, technical issues, and then two days later they try and there is a thunderstorm and in a couple more days they try. And if you have got to keep it closed while it's there on the launchpad, you might be talking about a week each time.	LU-1	See response LU-1.
Anonymous	FAA-2024-1395-0281-0048	No sensitivity or scenario analysis is presented showing what closure days and economic losses would look like under less favorable launch reliability (e.g. failure rates, pad/vehicle delays).	LU-1	See response LU-1.
Anonymous	FAA-2024-1395-0281-0050	Please supply the exact assumptions used to derive the 33–44 full-day and up to 33 half-day closure estimates: reliability assumptions, scrub rate, delays, weather, start times.	LU-1	See response LU-1.
Anonymous	FAA-2024-1395-0281-0051	Provide one or more sensitivity analyses showing outcomes (closure days, economic loss) under varying reliability and delay-scenarios (for instance, failures, weather, pad issues).	LU-1	See response LU-1.

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Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
Anonymous	FAA-2024-1395-0436-0002	No sensitivity or scenario analysis is presented showing what closure days and economic losses would look like under less favorable launch reliability (e.g. failure rates, pad/vehicle delays).	LU-1	See response LU-1.
Anonymous	FAA-2024-1395-0436-0004	Please supply the exact assumptions used to derive the 33–44 full-day and up to 33 half-day closure estimates: reliability assumptions, scrub rate, delays, weather, start times.	LU-1	See response LU-1.
Anonymous	FAA-2024-1395-0436-0005	Provide one or more sensitivity analyses showing outcomes (closure days, economic loss) under varying reliability and delay-scenarios (for instance, failures, weather, pad issues).	LU-1	See response LU-1.
Audubon Florida	FAA-2024-1395-0251-0005	The Draft EIS concludes that: “Based on information provided by NPS, it is estimated that there could be between 33 and 44 (using the most conservative estimate) full-day closures and up to 33 half-day closures, which equates to up to 60.5 total “closure days per year (44 full days + 33 half days = 60.5 “full days”). Launch scrubs and weather delays could affect the length and/or number of closures; however, the extent of these occurrences cannot be quantified at this time”. (ES-13) Accurate disclosure of the total impact on the 2.1 million visitors annually due to closures of any part of the Canaveral National Seashore, Merritt Island National Wildlife Refuge, and the waters of Mosquito Lagoon is important. The 60.5 days of closure appears to be an underestimate of actual closure times, as launch scrubs and weather delays are extremely common in the space vehicle launch process. The NPS has explained in detail in their contribution to the Draft EIS that even a short delay added to a launch day schedule can transform a partial day closure into a whole day closure, and even extend into a subsequent day. The conclusion that “…the extent of these occurrences cannot be quantified at this time.” does	LU-1	See response LU-1.

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Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
		not Seem supportable, since long term records of launches at NASA KSC and CCSFS exist to enable the calculation of an average range of scrub related and weather-related delays or holds. If this information were considered, the 60.5 days of closure would likely be increased substantially. These closures would occur on weekdays, weekends, and holidays. The Draft EIS characterizes closures as 'inconvenient'; however, this framing does not appear to align with the data provided regarding frequency and duration of closures. The Draft EIS states that visitors would simply be "expected" to accept such closures due to the long history of spacecraft launches at the KSC NASA facility. These characterizations do not appear to be well connected with data provided in the Draft EIS.		
Dixie Crossroads Seafood Restaurant, Inc.	FAA-2024-1395-0443-0001	Launch scrubs and weather delays could affect the length and/or number of closures; however, the extent of these occurrences cannot be quantified at this time". (ES-13) I've lived in Titusville all my life and based on my own experiences, I can tell you that launch scrubs and weather delays WILL (not could) affect the length and number of closures. The estimate of 60.5 "full day" closures is a gross misrepresentation of reality. Surely there are records available of all the past launch scrubs and weather delays that can be analyzed to get an average of the "extent of the occurrences" that can be revealed to the public. For us, there is no "half day" closure. Few, if any, people are going to travel from afar to visit CNS, MINWR, and SML if they are going to be closed for any amount of time. Due to the uncertainty of launch scrubs and weather delays, planning for a visit to CNS, MINWR, and SML will be impossible.	LU-1	See response LU-1.
Doctorchik	PublicMeeting-082825-0011-0001	My main concern with this project is the amount of days that Playalinda Beach will be closed. In the presentation just now they said 65 days, that's not	LU-1	See response LU-1.

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		factoring in the amount of days the launches and the landings are deferred. So if even every single launch was deferred by just one day, that's, you know, 120 plus days a year, almost half a year the Playalinda, a national resource, is denied to the public. So the impact of that on people's wellbeing, on people's livelihoods, on people's just, you know, enjoyment of living Seems unreasonable.		
Erich Schuttauf	PublicMeeting-082625-0005-0002	So we've come Seeking specifics on how many days are estimated for closure and whether losing a day to weather means that you really lose it for more than the 60 some odd days that they described in their answer.	LU-1	See response LU-1.
Fred Goldstein	FAA-2024-1395-0083-0002	On page ES-13 about Playalinda Beach it states: Based on information provided by NPS, it is estimated that there could be between 33 and 44 (using the most conservative estimate) full-day closures and up to 33 half-day closures, which equates to up to 60.5 total "closure days" per year (44 full days + 33 half days = 60.5 "full days"). Launch scrubs and weather delays could affect the length and/or number of closures; however, the extent of these occurrences cannot be quantified at this time. Given this is clearly an underestimate, as no scrubs or delays are included, why not use Falcon 9 as an example to estimate scrub and weather delays or perhaps a year or two of all launches from KSC and CCSFS as a whole? Applying these data to the estimate would provide a better sense of the potential impact. Even though these estimates are again likely to be understated (as the Falcon-9 and many of other launch vehicles are well proven), they would be closer to the truth.	LU-1	See response LU-1.
Friends of Canaveral, Inc.	FAA-2024-1395-0298-0003	The projected launch schedule will greatly impact management of the national seashore. Closures have the effect of increasing attendance before and after a	LU-1	See response LU-1.

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Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
		launch which adds stress to park management already feeling the impacts of reductions in force. The Final EIS should therefore include a more realistic and detailed analysis of the potential for prolonged and cumulative closures, rather than assuming best case scenario. These recurring and prolonged access restrictions are not minor inconveniences but represent significant disruptions to public use and enjoyment of federal lands specifically set aside for recreation.		
Halifax River Audubon	TEMP-0032-0002	The EIS speculates that access to both Merritt Island National Wildlife Refuge and Canaveral National Seashore will be closed off for up to 44 full days and up to 33 half days. Combined these total over 60 days. And this doesn't account for delays related to weather or equipment malfunctions. These inevitable increases in closure times could push the total loss of access to 90 days or more. The entire public will be forced to lose access to these environmental treasures for up to 25% of the year. Again, this is not a significant impact?	LU-1	See response LU-1.
Karen Dlhosh	PublicMeeting-082625-0010-0001	When they say they are going to close the beach for 60 days, I don't really See that anywhere written. And I think the public is not as informed about that. But we also know that that is not a real 60 days because there is going to be scrubs. And then they are going to have to close it again and then they are going to have to close it again. That is a lot of impact.	LU-1	See response LU-1.
Kevin Riley	PublicMeeting-082625-0004-0002	SpaceX also has a bad record in estimating the times of their events. I saw a figure of Playalinda Beach will be closed 40 to 100 days a year. Well, what if they make a mistake and instead it's 240 days a year? SpaceX will say whoopsie. And, it will be a major impact on my life, though, and on the tourism business in Titusville, Florida. And, we need to hold them accountable to the 40 to 100 days a year, which is still significant.	LU-1	See response LU-1.

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Kristina Fisher	PublicMeeting-090325-0008-0003	It's going to create unbelievable larger number of days of beach closures for Playalinda, Canaveral National Seashore, because we all know every rocket launch gets slipped 20 times.	LU-1	See response LU-1.
Margaret Tinsley	FAA-2024-1395-0321-0004	these numbers all assume that the EIS estimates of the Static Fire restriction zone are correct. The EIS states these zones are mission specific and calculated by the FAA after receiving license or license modification materials. If the Static Fire restriction zone is recalculated to be even slightly larger, the beach access road would also have to close during static fire testing. This would further increase the closures, potentially leading to the beach access road being closed for most of the year.	LU-1	See response LU-1.
National Parks Conservation Association	FAA-2024-1395-0360-0004	While the DEIS notes there would "only" be 44 launches per year, this estimate is highly conservative; the likelihood of delays due to weather, equipment issues, or aborted launches could substantially prolong closures, exacerbating their impact on visitors and local communities. The Final EIS should therefore include a more realistic and detailed analysis of the potential for prolonged and cumulative closures, rather than assuming an idealized scenario.	LU-1	See response LU-1.
Surfrider Foundation Space Coast Chapter	FAA-2024-1395-0439-0010	The Draft EIS does not adequately calculate and assess the impact of public beach closures related to the proposed Starship-Super Heavy Vehicle activities, nor does it provide a plan for monitoring actual total closures and how closures in excess of the anticipated amount would be addressed.	LU-1	See response LU-1.
Titus	PublicMeeting-082625-0002-0003	The last static fire test was Starship 36 which was in June. It was a complete demolition explosion on the launchpad. We need to ask one question, what happened to Starships one through 35? The last attempt to launch Starship 10 was last Sunday. It was	LU-1	See response LU-1.

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		scrubbed also on Sunday, on Monday, and yesterday. It is rescheduled for today. So with the 88 days of scheduled launches that this study would include, it doesn't include for those reschedules. So let's just do the math on that. Three launches were just scrubbed, so 88 times three, that is 264. That's 264 days of closure that could experience to the National Seashore.		
U.S. Fish and Wildlife Service (Keith Ramos)	TEMP-0029-0007	#9. 2-12, 2.1.3.1 Subsection: Landside coordination Comment by: MINWR Comments: The Service is concerned that the DEIS does not fully disclose and analyze closure times for both visitor access and refuge management activities. It is important to note that closures trigger logistical actions, including redirecting MINWR staff away from assigned duties to close areas, stage and move equipment, and delay management priorities. Recommend that the total closures for this Proposed Action combined with already approved actions and reasonably foreseeable actions on the horizon be disclosed and analyzed in the DEIS. We recommend including the range of potential days for closure of visitor access and habitat management activities on the Refuge.	LU-1	See response LU-1.
American Association of Nude Recreation-Florida Region	FAA-2024-1395-0169-0010	We are unclear if the opportunities for clothes-free recreation within designated areas at Playalinda Beach are being protected by limiting the number of SpaceX landings and takeoffs as presented or if this is just a starting point that could lead to many more beach closures than was presented.	LU-2	See response LU-2.
Fred Goldstein	FAA-2024-1395-0083-0003	On Page ES-13 it also states: As mentioned previously, it is anticipated that, similar to other launch vehicles like Falcon, associated closure areas would reduce in size and duration as the program matures, more data is available, and the reliability of the vehicle improves. Is this likely given the size of this vehicle? And if so, how much might it be reduced, could it allow for the	LU-2	EIS Section 2.1.3.1 provides information regarding how the closure areas are derived. As stated, the restricted areas shown are estimated and provide only a representative depiction; exact restricted areas would be determined prior to pre-launch activities and launch/landing. For planning purposes to support this EIS, SpaceX and NASA used conservative assumptions to develop these restricted areas.

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		reopening of Playalinda? This is an important area for residents and visitors. More information on this could be helpful.		Ultimately, each restricted area is mission specific and will be determined by Range Safety and the FAA through the FAA license or license modification process. After receiving license or license modification materials, the FAA will determine the appropriate restricted areas to protect public safety and compare those areas to the assumptions provided in this EIS. The FAA would address any discrepancies or gaps, if found, in the environmental analysis. It is anticipated that the size of the restricted areas would shrink over time due to an increase in the reliability of the vehicle (as demonstrated by other launch vehicles over time) and the availability of empirical data. At this time it would be speculative to quantify a likeliness of reduction or size of reduction, but the expectation is, as stated, that this restricted area would reduce in size as the program matures, as has been the case for other launch vehicles.
Anonymous	FAA-2024-1395-0086-0001	What about tourists who have come to the area for the beach, only to find it's closed for a launch? What about having it closed for a launch, then to have the launch scrubbed and forcing another day of closure, or a third, or a fourth.	LU-3	Unexpected closures already occur at Playalinda Beach due to capacity issues that are unrelated to launch activities; these closures are implemented by the NPS at their discretion. Section 3.3.4.2.2 of the EIS states that closures associated with the Proposed Action would increase the frequency of Playalinda Beach closures, and attempts to quantify the effects of these closures. Mitigations, such as advanced launch and closure notifications, would serve to minimize these potential effects.
Evan Nix	FAA-2024-1395-0156-0001	Playalinda Beach, within the Canaveral National Seashore, is one of the few public places in Florida where social nudity is tolerated. It is a rare and important destination for those of us who value body freedom. The Draft Environmental Impact Statement notes that up to 44 Starship launches per year could result in more than 60 beach closures annually — roughly two months of lost access. That level of disruption would make Playalinda unreliable and diminish its role as a unique public resource. Such	LU-3	See response LU-3.

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		closures would also displace naturists and other visitors into neighboring areas, increasing the likelihood of user conflict. The EIS should more fully consider these social impacts, as well as the economic contributions of naturist tourism, which draws visitors like me to Florida from across the country.		
Evan Nix	FAA-2024-1395-0156-0002	Recognize recreational access at Playalinda as a significant resource at risk. Consider the displacement and user conflict closures may cause.	LU-3	See response LU-3.
Karen Dlhosh	PublicMeeting-082625-0010-0002	My concern too is that I don't think anything that I saw mentioned about that, will there be any impact on Mosquito Lagoon and access to Mosquito Lagoon regarding kayaking, fishing, ecotourism.	LU-3	See response LU-3.
Robert Pecce	FAA-2024-1395-0154-0001	My concerns are regarding the impact to the Wildlife Refuge as well as the National Sea Shore. The Refuge is known national and is visited by people from all over the United States as a bird watching site as well as for viewing other nature wildlife.	LU-3	See response LU-3.
Anonymous	FAA-2024-1395-0131-0001	Playalinda beach should not be closed during launch operations. The distance from the launch pad to Playalinda beach or the VAB area where thousands of employees work is almost the same. Will these people be told not to go to work that day? What is the difference between those workers and shutting down Playalinda beach? People simply want access to their beach. That's not too much to ask. There is greater risk to KSC employees than beach goers especially considering predominant flow is from the east. You can't justify the beach closure plain and simple. It's a very important place for many people myself included.	LU-4	Conflicts among range users would need to be resolved as part of the range management and scheduling process between users and range managers. Range safety regulations for KSC are contained in NASA NPR 8715.5B, Range Flight Safety Program and KSC 4360, which state that Range Safety organizations review, approve, and monitor conditions and place safety holds on all prelaunch and launch operations when necessary. The objective of the Range Safety Program is to ensure that the public, personnel, environment, and area resources are provided an acceptable level of safety, and that all aspects of prelaunch and launch operations adhere to public laws. Prior to launch activities, safety hazard areas are cleared of all non-essential personnel, including NASA and other contractor and launch provider personnel. Additionally, EIS Section 3.4.5 states that KSC would continue to inform all Spaceport Programs and Partners of planned Spaceport activities to mitigate operational conflicts and

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				support efficient planning. See response MT-1 regarding mitigations.
Aerospace Industries Association	FAA-2024-1395-0314-0002	AIA recommends that the FAA, in coordination with NASA and the DAF, expand the Final EIS analysis to evaluate how concurrent and overlapping activities at LC-39A and surrounding complexes may impact range access, scheduling, and shared infrastructure systems for launch operators. The analysis should also identify BMPs and mitigation measures that would minimize conflicts and optimize launch operations.	LU-4	See response LU-4.
Aerospace Industries Association	FAA-2024-1395-0314-0001	AIA recommends that the FAA, in coordination with NASA and the DAF, broaden the Final EIS analysis of reasonably foreseeable effects and Best Management Practices (BMPs) to evaluate how concurrent activities at LC-39A and surrounding complexes may impact other launch and reentry operators.	LU-4	See response LU-4.
Anonymous	PublicMeeting-082825-0012-0002	So I work for Artemis Orion, and it's going to be right next-door. Like, are they going to totally shutdown processing at Pad 39B when Space X is launching or static fires or landing? Because that is a whole ton of NASA people, contractor people, USA -- ULA is right next to it, if they have to evacuate all of those people?	LU-4	See response LU-4.
Richard D. Horner	PublicMeeting-082825-0016-0005	Lastly, is your analysis also accommodating operations at the Cape and the Kennedy Space Center for other entities that are operating on those respective centers and what their effect is operationally? Because if you're going to fly this vehicle, you're going to have to clear the entire Cape every time you fly it	LU-4	See response LU-4.
Robert Pecce	FAA-2024-1395-0154-0004	Launches would affect operations of other competing space companies, like Blue Origin, as well as other nearby companies.	LU-4	See response LU-4.
United Launch Alliance, LLC.	FAA-2024-1395-0376-0005	SpaceX Seeks approval to launch Starship-Super Heavy from LC-39A up to 44 times per year. The Draft EIS mistakenly overlooks operational interference by	LU-4	See response LU-4.

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United Launch Services, LLC		assuming that the conflict that these 44 launches will occasion are manageable. In addition to evacuating ULA facilities for each of the 44 launches and booster landings, other activities requiring evacuation include at least 44 Starship-Super Heavy booster static-fire tests, 44 Starship-Super Heavy upper stage static-fire tests, 44 upper stage landings, and 44 wet dress rehearsals. Assuming nine additional launch scrubs (~20% rate), a total of 229 launch and launch-related activities requiring evacuations will severely impact ULA operations. The Draft EIS also fails to account for the additional time required for ULA employees and contractors to secure operations, evacuate, reenter the evacuation areas, and prepare to resume operations. Operations that cannot be safely interrupted will be further delayed by every launch-related activity. Additionally, other impacts of the Proposed Action either go unrecognized or are not adequately assessed, including impacts to the broader community and the environment. By these comments, ULA notifies the FAA of these shortcomings, requesting that the Final EIS incorporate a more accurate, compliant and effective analysis of the operational impacts associated with the Proposed Action. Mitigation measures should have been more thoroughly evaluated and required in the Draft EIS. Issuance of a Final EIS containing the same omissions and errors will not satisfy NEPA, and will undermine the Executive Order intended to prevent operational interference and promote competition.		
Speaker	PublicMeeting-082825-0007-0002	Like, are they going to totally shutdown processing at Pad 39B when Space X is launching or static fires or landing? Because that is a whole ton of NASA people, contractor people, USA -- ULA is right next to it, if they have to evacuate all of those people?	LU-5	See responses LU-2 and LU-4.

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Anne Revels	PublicMeeting-082625-0001-0002	And how are they going to know that it is closed. If you are going to close it that much, it's going to have a real economic effect on Titusville. And what is going to happen is people aren't even going to try to come, because to make a 40-mile drive and find that it is closed and have to turn around and leave. Right now there is no real easy way to inform the public. You can go to NASA Spaceflight and nobody thinks to do that. I am looking at Playalinda Beach, not NASA Spaceflight. And the newspaper, nobody reads the newspaper. There has got to be somewhere where people can just get on their phones and look and See is Titusville beach open today, tomorrow, or next Sunday	LU-6	EIS Section 3.4.5 states that advanced notifications of launches would continue to be available on websites (e.g., NASA's main website has the launch schedule), applications, social media, and print sources for the public and recreational and commercial participants to plan accordingly and minimize disruptions such as delays and rerouting.
Anne Revels	PublicMeeting-082625-0001-0005	I am concerned about the beach closings period but also about how we can inform the public so they don't just ignore this area totally because it is not accessible anymore.	LU-6	See response LU-6.
City of Titusville (Mayor Andrew Connors)	TEMP-0026-0001	Public Access and Recreation: Playalinda is one of the few remaining undeveloped beaches on Florida's East Coast. Limiting access, often without a clear reopening schedule, alienates the local community from land that is meant to be shared by all.	LU-6	See response LU-6.
American Association of Nude Recreation-Florida Region	FAA-2024-1395-0169-0013	Furthermore, we are concerned about the strong potential for user conflict between those moved out of their respective areas in Brevard County (Playalinda Beach) and into Volusia County (Apollo Beach) during SpaceX closures without a clear plan and responses for dealing with strains on the resource(s) and staff involved. Likewise, and though it was not mentioned during the presentation, historically Lot 5 at Apollo Beach has been frequently closed during some launches, presumably due to atmospheric conditions and flight paths. This has forced naturists to Lot 4 which can present user conflict for the reasons stated above.	LU-7	Section 2.1.3.1 of the EIS describes the extent of the notional land-based restricted access area under the current operational scenario; it does not extend to Apollo Beach or Volusia County. There is no intent to "move out" users of Playalinda Beach. The FAA, NASA, and SpaceX acknowledge that beach closures will inconvenience some potential users; however, beach closures would be temporary and would not otherwise preclude intended use. Adjudicating user conflict between naturists and non-naturists on public beaches is not within the scope of the FAA's or NASA's authority.

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Erich Schuttauf	PublicMeeting-082625-0005-0003	We also came Seeking specifics on whether any of the beaches in Volusia County would be affected by these closures that they're talking about, in addition to the Brevard County side. We have people that enjoy Apollo Beach, which is north in Volusia County. So we're looking for that specific, as well. And frankly, we're concerned about user conflict. Because, when all those folks are told that they can't use Playalinda or can't use places south of there, they're going to inevitably come looking for places north of them, and there's going to be the potential for user conflict.	LU-7	See response LU-7.
Erich Schuttauf	PublicMeeting-090325-0001-0001	There has not been much talk about Volusia County, however, and while that's not part of the immediate launch area, it is going to be impacted, and here's why: Because, as many people face closures of their favorite beach, south around Playalinda Beach and elsewhere, they are going to move and migrate upwards into Volusia County, where Apollo Beach is located, and there is certain to be user-conflict generated when people who do not understand the customs of Playalinda Beach are intermixed with people that have been driven north.	LU-7	See response LU-7.
American Association of Nude Recreation-Florida Region	FAA-2024-1395-0169-0014	Therefore, while the EIS concluded that closing the Playalinda Beach from 44 to 60 days was "insignificant," this ignores the health benefits for beach participants, strains on environmental and staffing resources, and it did not give the actual or estimated number of beach closure days due to postponements. We advocate for a minimal number of beach closure days if SpaceX expansion occurs.	LU-8	EIS Section 3.3 states that the Proposed Action would be consistent with the current land uses at and in the vicinity of KSC and would continue to function to support space transportation operations and associated support requirements. EIS Section 3.9 indicates that NPS may consider closures of Playalinda Beach a significant adverse effect to their operations. Persons visiting the park that are turned away due to closures would experience a loss of time spent and related travel costs; however, overall the FAA does not consider this a significant effect because beach closures would be temporary in nature, with a robust notification and awareness system serving to minimize this potential issue.

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				See response LU-1 regarding closures related to launch delays and scrubs.
American Association of Nude Recreation-Florida Region	FAA-2024-1395-0169-0002	We disagree that closing the Playalinda Beach from 44 to 60 days will be "insignificant." This ignores the health benefits of beach patronage, strains on environmental and staffing resources, and does not give the actual or estimated number of beach closure days due to postponements.	LU-8	See response LU-8.
Anne Revels	PublicMeeting-082625-0001-0004	And it's not just the beach, it is the Merritt Island Wildlife Refuge will be affected too. A lot of the people that go there are birdwatchers, nature enthusiasts, photographers and they want to go and spend the day just walking around looking at the wildlife.	LU-9	EIS Section 3.3 addresses potential effects of restricted access on recreational use.
Garrett Skrobot	PublicMeeting-090325-0005-0002	Looking at road closures and park closures, that's a national park that is paid with our taxpayers money. 70 launches plus 44 more, that's 114 and rain day, that's two days, that's 224 days of potential closure of Playalinda Beach in the National Park area.	LU-10	The 70 launches referred to in this comment are associated with the SLC-37 proposed action by the Department of the Air Force at CCSFS (the proposal is actually for 76 launches); while it is known that the SLC-37 proposed action restrictions associated with the Blast Danger Area do not reach Playalinda Beach, the DAF has not yet analyzed the potential effects associated with their related Airspace Hazard Areas. Please also see response LU-1 regarding closures associated with launch delays.
DOI	FAA-2024-1395-0296-0014	Page #: 3-56 Comment: The DEIS lists CANA's summer hours only. CANA is open 6am-8pm for summer hours and 6am-6pm for winter hours (typically changes over with daylight savings). The NPS requests clarifying this.	LU-11	See response LU-11.
DOI	FAA-2024-1395-0296-0015	Page #: 3-58 Comment: The DEIS states, "Recreation: Continued implementation of strategies to minimize the length of surrounding park closures." The NPS requests clarification of what these strategies are.	LU-12	Improved forecasting of debris field with advances in predictive modeling and computer simulations will allow required footprint of safety zones and closure areas to be refined. Increased success of launches and landings will also allow required safety buffer zones to be decreased. Improved communication between the agencies and development of adaptive closure protocols would help minimize closure windows.

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Anonymous	FAA-2024-1395-0281-0047	The assumptions underlying these estimates (e.g. frequency of scrubbed launches, weather delays, average launch timing) are not clearly defined. Without clarity, estimates may be overly optimistic (or pessimistic) but cannot be independently evaluated. Also, the EIS cites "conservative assumptions" but does not disclose them, making it impossible to independently evaluate the closure projections	LU-13	Assumptions utilized are provided in EIS Section 2.1.3, Section 3.3.4, and Section 3.4.4.
Anonymous	FAA-2024-1395-0436-0001	The assumptions underlying these estimates (e.g. frequency of scrubbed launches, weather delays, average launch timing) are not clearly defined. Without clarity, estimates may be overly optimistic (or pessimistic) but cannot be independently evaluated. Also, the EIS cites "conservative assumptions" but does not disclose them, making it impossible to independently evaluate the closure projections	LU-13	See response LU-13.
Margaret Tinsley	FAA-2024-1395-0321-0002	First, the existing notification system (NPS website and signage on the road leading to the park) is already inadequate for current operations. Many times I have left the beach and noticed the access road gate was closed, but there was no online notification. How does SpaceX propose to improve this? How rapidly will they update the information when a launch is delayed or scrubbed?	LU-14	NPS is responsible for implementing and communicating any temporary access restrictions to Playalinda Beach and related areas during launch operations. Under the Proposed Action, the FAA, NASA, and SpaceX would continue to coordinate closely to ensure timely and accurate public notifications and ensure closure communication protocols remain effective and responsive to public access needs.
Anonymous	FAA-2024-1395-0436-0006	What legal or administrative criteria will the NPS apply when approving or denying closure requests?	LU-15	See response LU-15.
Anonymous	FAA-2024-1395-0281-0057	What legal authority allows the FAA to approve the denial of public access to a National Seashore for such an extended period?	LU-15	The FAA does not approve closures of CANA. NASA and DOI's responsibilities with regards to CANA closures are governed by the P.L. that created CANA, P.L. 93-626; NASA - NASA and DOI's agreement for the "Use of Property at John F. Kennedy Space Center", NASA, as a Part of the Canaveral National Seashore, KCA 4307; and any other applicable laws and policies including Secretarial Order 3426, "Ensuring National Parks are Open and Accessible." P.L. 93-626 provides that,

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				"the Secretary of the Interior, upon the request of [NASA], shall close this area or any part thereof to the public when necessary for space operations." KCA 4307 provides that, upon the request of the KSC Director, CANA may be closed to the public "during checkout, launch and landing periods or during emergencies involving the safety and/or security of property and/or personnel." NASA will continue to work with DOI, including NPS and USFWS, to ensure compliance with these applicable laws and directives.
Anonymous	FAA-2024-1395-0436-0010	What legal authority allows the FAA to approve the denial of public access to a National Seashore for such an extended period?	LU-15	See response LU-15.
Dicque Walz	FAA-2024-1395-0354-0001	Keep Playalinda access road open year round. The Proposed Launch/Landing Access Restriction Area does not need to extend over the beach road. From the Change.org petition: Inconsistencies: FAA safety radius is 3.11 miles, yet Playalinda is outside of this radius from LC-39A and still targeted for closure, while some sites inside the hazard zone remain open. This is for convenience versus safety.	LU-16	It is unclear how the 3.11-mile radius was derived. According to the process identified in Section 2.1.3 of the EIS the closure radius for launch activity is shown in Figure 2.1-5.
National Parks Conservation Association	FAA-2024-1395-0360-0006	Frequent and extensive closures that prevent public use, disrupt refuge programming, and divert staff from core wildlife or habitat management duties are difficult to reconcile with this compatibility standard. Before any agency authorizes closures of this scale, the law requires that a formal compatibility determination be made and subjected to public involvement— yet the DEIS fails to demonstrate that this essential process has occurred.	LU-17	The FAA is not aware of a law that requires that a formal compatibility determination be made and subjected to public involvement. However, potential effects have been assessed in this EIS, the NPS and USFWS are Cooperating Agencies, and the public has been afforded the opportunity to provide input (see response NP-1 regarding public/agency involvement in the NEPA process).
Aerospace Industries Association	FAA-2024-1395-0314-0003	the Final EIS should, to the extent practicable, quantify foreseeable effects such as overlapping closures, access restrictions, and scheduling demands when LC-39A operations coincide with activity at nearby complexes, including SLC-37, SLC-40, SLC-41, and LC-39B. It should also explicitly evaluate potential impacts on other	LU-18	See response OT-6 regarding reasonably foreseeable effects. EIS Section 3.4.5 states that KSC would continue to inform all Spaceport Programs and Partners of planned Spaceport activities to mitigate operational conflicts and support efficient planning. Conflicts with other launch providers is an

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		launch providers that operate in the same area and depend on shared facilities and services, which are not fully addressed in the Draft EIS. Absent this expanded analysis, foreseeable effects on the long-term operability of the Range will not be fully captured, limiting the ability of agencies, regulators and providers to plan effectively for future demand.		issue that would need to be addressed through NASA and CCSFS range management and scheduling operations.
Anonymous	FAA-2024-1395-0436-0012	Has the Department of the Interior or NPS issued an opinion on whether prolonged closures are compatible with the National Park Service Organic Act?	LU-19	The FAA is not aware of an official NPS opinion regarding the Organic Act.
Brevard County Mosquito Control	FAA-2024-1395-0446-0001	SpaceX proposes that Starship-Super Heavy will conduct 88 static fire test and 44 wet dress rehearsals which will lead to approximately 704 hours of closures and 60.5 full or partial day closures in the local area. Such closures could have significant impacts on the ability of local mosquito control operations to protect the local public health and the well-being of Brevard County residents and visitors.	LU-20	Closure areas are specific to the Playalinda Beach area and small portions of MINWR (see EIS Figure 2.1-5) and would be short-term/temporary. There is no indication that closures of this particular area for these timeframes would affect BCMC's operations within the local community. On KSC property, NASA, BCMC, and MINWR have a joint MOU (KCA 1456) that governs the roles and responsibilities of the agencies for mosquito control within the KSC property boundary.
Brevard County Mosquito Control	FAA-2024-1395-0446-0002	Today, BCMC employs integrated water level management techniques via mosquito impoundment management, native mosquitofish stocking, and other large-scale biological and environmentally friendly treatment methodology to effectively control mosquitoes in their immature stages, before they emerge into pestiferous flying, biting adult mosquitoes. In addition, BCMC conducts federal and state-approved nighttime spray operations to further protect the public from mosquito-borne disease transmission, as evidenced in the current dengue outbreak response. The proposed Starship-Super Heavy operations would not only impact such operations by often restricting access to MINWR impoundment pumps, culverts and earthen dikes via watercraft and ground vehicles, but would also limit manned and unmanned aerial treatment and inspection	LU-20	See response LU-20.

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		operations throughout the county due to associated FAA-mandated airspace closures.		
Fraser Howe	PublicMeeting-090325-0011-0001	I'm a licensed professional engineer in Florida, and I've managed a study with the Florida Department of Transportation to extend a bike and pedestrian trail out to the Atlantic Coast through the Merritt Island Wildlife Refuge and Canaveral National Seashore. I'm concerned about the effects of this launch cadence at a Spaceport in that location.	LU-21	If the bike/pedestrian trail avoids potential closure areas as identified in the EIS there would be no conflict. Were the trail to be constructed through areas that might experience potential closure areas then there would be a conflict during periods where the trail might be temporarily closed.
Anonymous	FAA-2024-1395-0281-0052	What legal or administrative criteria will the NPS apply when approving or denying closure requests?	LU-22	As discussed in EIS Section 3.3.4, on April 3, 2025, the Secretary of the Interior issued SO 3426, *Ensuring National Parks Are Open and Accessible*, which is "intended to ensure that all national parks and national historic sites, which are managed by the Department of the Interior (Department), remain open and accessible for the benefit and enjoyment of the American people and to ensure that the NPS will provide the best customer service experience for all visitors." The policy as identified in the SO is that the NPS Director will ensure that all park units remain open and accessible to the American public during the specified hours of operation posted on the respective park units' public webpages at https://www.nps.gov/findapark/. To ensure visitor access and satisfaction, any closures or reductions to operating hours, seasons, or any visitor services (including trails and campgrounds), in whole or in part, must be reviewed by the NPS Director and the Assistant Secretary for Fish and Wildlife and Parks prior to any reduction action by the individual park units. Therefore, before any closures are enacted, the closure activities must be reviewed and approved by the NPS Director and the Assistant Secretary for Fish and Wildlife and Parks. This will be coordinated between the FAA, NASA, SpaceX, and the Department of the Interior.
DOI	FAA-2024-1395-0296-0016	Page #: 3-59 Comment: The DEIS recognizes some impacts to recreational land use (i.e., increased noise,	LU-23	Based on the results of the analyses weighed against the criteria presented in EIS Section 3.3.4 (as derived from FAA Order 1050.1F NEPA Desk Reference), the FAA does not

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		increased access restrictions, closures and the associated changes to USFWS and NPS staff priorities) but concludes that the FAA does not consider these impacts to be significant because there is no constructive use of the area and because noise and closure events would be temporary and would not permanently preclude the viability of use of the areas, as shown by their current exposure to frequent launch-related noise from both KSC and CCSFS. The FAA has determined that the Department of Transportation Section 4(f) does not apply to MINWR or CANA and therefore cannot use a determination of "no constructive use" to justify the conclusion of "no significant impact." The NPS recognizes that while noise and closure events may be temporary, repeated exposure to these disturbances can still have meaningful impacts on conservation values and public recreation experiences at CANA. Further, the DEIS uses "current exposure to frequent launch-related noise" as evidence that CANA will not be significantly impacted. CANA has not previously been exposed to the noise levels expected with Starship-Super Heavy (SSH), nor has it experienced the closure cadence expected with SSH. The NPS requests a reconsideration of the significance determination and proposes the following language, "The FAA considers these impacts significant. Although noise and closure events would be temporary, the decibel level and closure cadence both exceed historic norms for the area and significantly alter the resource values the park was set aside to conserve as well as the public's access to the park." NPS suggests the following revision, "In general, effects to recreational land use in the surrounding study area would occur due to increased noise events/public		consider these land use effects to be significant. Therefore, the FAA declines to make the requested change.

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		exposure, as well as increased access restrictions, closures, and the associated changes to USFWS and NPS staff management priorities altered by launches. The FAA considers these effects to be significant; although noise and closure events would be temporary, the increased decibel level and closure cadence exceeds what CANA has previously experienced. Further, loss of fee revenue to CANA may significantly impact CANA's financial viability and ability to meet its congressionally designated directives."		
U.S. Fish and Wildlife Service (Keith Ramos)	TEMP-0029-0005	#7. 3-55 3.3.4.2.2 Environmental consequences/ Land Use Comment by: MINWR Comments: The current Prescribed Burn MOU provides additional flexibility for the US Fish and Wildlife Service to conduct burning activities at MINWR/KSC. However, the DEIS should disclose the maximum closures to burning activities that could be associated with the Proposed Action. The proposed Prescribed Burn MOU includes limits on prescribed burning within 12 hours of a critical launch (e.g., government launches and crewed launches), no burning or smoke within roadblock/hazard areas while they are in place, and no smoke within transportation corridors for flight hardware and payloads.	LU-24	See response LU-1 regarding closures. As discussed in Section 3.3.4.2.2, the Proposed Action would not change the existing use of the launch facilities or significantly change the fire management program activities at KSC. While the increase in projected launch operations and static fire testing over existing conditions could potentially overlap with the prescribed burn schedule, it is not anticipated that current fire management program activities would be significantly affected. This is because prescribed fire planning and interagency coordination activities would continue at all FMUs and adhere to the MOU for Prescribed Burning. Continued enforcement of the MOU would ensure that controlled burning of adjacent land and related issues are well communicated with the goal of limited, if any, effect to operations at the LCs. The SLD 45/USFWS/KSC Prescribed Burn Working Group has been established for general scheduling and coordination of prescribed burning activities on KSC, MINWR, and CCSFS. When NASA KSC receives USFWS notification of a planned prescribed burn of a targeted burn unit (and back-up unit) at KSC, NASA KSC notifies SpaceX to allow coordination of prescribed burns. Under implementation of the Proposed Action, NASA KSC management would continue to assist the USFWS in resolving any operational or other barriers to accomplish prescribed burns. As such, it is not anticipated that fire

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				program activities would be significantly affected due to implementation of the Proposed Action.
J Regal	FAA-2024-1395-0350-0001	I am deeply troubled by the potential impacts of this proposal, particularly the extensive closures of public areas such as Playalinda Beach, Canaveral National Seashore (CANA), and Merritt Island National Wildlife Refuge (MINWR). These closures would severely disrupt public access, harm local ecosystems, and negatively affect the socioeconomic fabric of our community. The Draft EIS outlines up to 44 launches, 88 landings, 88 static fire tests, and 44 wet dress rehearsals annually, totaling approximately 264 events per year—or one every 1.4 days. This frequency would affect critical public spaces, including portions of CANA and MINWR. Such restrictions would not only limit access to these areas for recreation but also account for unpredictable extensions due to launch scrubs, weather delays, or anomalies, further compounding the disruption. These closures would have profound environmental and recreational impacts.	LU-25	As indicated in Section 2.1.3, closures would occur up to 60.5 days per year, not 264 or one every 1.4 days.
City of Cape Canaveral	FAA-2024-1395-0288-0001	Omission of Applegate Settlement Agreement The Draft EIS does not address the federal settlement agreement in Applegate et al. v. United States, Ct. Fed. Claims No. 92-832-L (1999), which established long-term federal obligations for beach renourishment including the entire beach located within the City of Cape Canaveral. Under the Settlement Agreement, the Federal Government is obligated to maintain Brevard County's beaches for 50 years at 6-year intervals (+- 2 years). Generally, renourishment has consisted of implementing a by-pass project that periodically dredges sand that accumulates north of the Port Canaveral inlet and pumps it southward to restore the natural littoral drift and maintain eroding beaches of Cape Canaveral and Brevard County. This federally	LU-26	The FAA does not anticipate that beach renourishment activities would be affected; these activities are currently ongoing under current launch cadence and coordinated through with the USACE, Port Canaveral, and Brevard County. As far as the FAA is aware, this practice would continue.

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		mandated shoreline protection program is of direct concern to our residents, who rely on healthy beaches for storm resilience, recreation, dune preservation, and the City's economic vitality. NEPA and the FAA's implementing order require the EIS to evaluate considerations of direct, indirect, and cumulative impacts, their significance and possible conflicts and inconsistencies with the objectives of Federal, regional, state, tribal, and local land use plans, policies, and controls. Additionally, the EIS must address, for the area of concern, unresolved conflicts and integrate review with other applicable Federal environmental requirements and duties. The Draft EIS should therefore have considered the Applegate settlement agreement and its associated long-term obligations for beach renourishment at Cape Canaveral. Because the Applegate settlement is a binding federal obligation, the draft EIS's failure to address it constitutes a substantive omission under NEPA and FAA's implementing orders. The Final EIS should be revised to analyze how Starship-Super Heavy launch operations may affect the timing, cost, or feasibility of fulfilling these renourishment obligations. In addition, the FAA should document consultation with the U.S. Army Corps of Engineers (Jacksonville District), Port Canaveral, and Brevard County, who share implementation responsibilities, to ensure that federally mandated shoreline protection is not compromised.		
Tracy Portz	TEMP-0004-0007	Beaches, Air Space etc are to be shut down for trial runs, dry wet and the actual flight. How many days are these places open and free to the public then?	LU-27	Section 2.1.3.1 of the EIS describes the extent of the notional land-based restricted access area under the current operational scenario; this analysis also indicates that beach closures under nominal operations may occur up to 60.5 days per year (see response LU-1 regarding launch delays and scrubs). Beaches are otherwise open to the public; fees are charged by NPS to access CANA.

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DOI	FAA-2024-1395-0296-0013	Page #: 3-55 Comment: The DEIS states, "Noise levels would remain below 65 dBA DNL at all locations outside the boundaries of KSC and CCSFS (Figure 3.2-16)." Please note that Figure 3.2-16 indicates that the southeast corner of CANA will be exposed to 70 dBA DNL. Please revise the statement to, "Noise levels would remain below 65 dBA DNL at all locations outside the boundaries of KSC and CCSFS except for the southeast portion of CANA, which may experience a dBA DNL of 70."	LU-28	This change has been made. Note that within the context of the EIS noise analyses, "the boundaries of KSC and CCSFS" are meant to include portions of CANA—this has been clarified in the EIS.

Notes: BCMC = Brevard County Mosquito Control; CANA = Canaveral National Seashore; CCSFS = Cape Canaveral Space Force Station; DAF = Department of the Air Force; DEIS = Draft Environmental Impact Statement; DOI = Department of Interior; EIS = Environmental Impact Statement; FAA = Federal Aviation Administration; FMU = fire management unit; KCA = Kennedy Contract Agreement; KSC = Kennedy Space Center; MINWR = Merritt Island National Wildlife Refuge; MOU = Memorandum of Understanding; NASA = National Aeronautics and Space Administration; NEPA = National Environmental Policy Act; NPR = NASA Procedural Requirements; NPS = National Park Service; P.L. = Public Law; SLC = Space Launch Complex; SLD 45= Space Launch Delta 45; SO = Secretarial Order; SpaceX = Space Exploration Technologies Corp.; USACE = United States Army Corps of Engineers; USFWS = United States Fish and Wildlife Service.

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Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
ross burnaman	FAA-2024-1395-0092-0002	Moreover, the draft does not adequately take into account the adverse economic impact of beach closures of the Canaveral National Seashore.	SO-1	EIS Section 3.4.4.2.2 explicitly addresses potential economic effects associated with closures of Playalinda Beach and portions of CANA.
J Regal	FAA-2024-1395-0350-0002	From a socioeconomic perspective, these closures threaten the local economy, which relies heavily on tourism and outdoor recreation. Annual closure hours could reach 858, representing about 10% of the year, deterring visitors and impacting businesses such as guided tours, campgrounds, and local eateries. The Draft EIS notes disruptions to recreational sites like trails, water access, and golf courses, but it fails to adequately address the broader economic ripple effects, including lost revenue and reduced quality of	SO-1	See response SO-1.

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		life for residents who depend on these public lands for livelihood and leisure.		
Trey Loughridge	PublicMeeting-082625-0012-0003	And, we have thousands of people that come here every year just for that beach, to come to Playalinda. 1.6 million people came here last year at Playalinda. Now, 60 days that you're going to take away, that's money brought into our economy.	SO-1	See response SO-1.
Ross Memphis	FAA-2024-1395-0098-0002	In addition to safety concerns, these activities threaten the value and livability of residential areas. Noise, light, and vibration impacts will disrupt daily life, harm property values, and reduce the appeal of nearby neighborhoods. The FAA has a duty under NEPA and related regulations to ensure that all potential impacts—especially those affecting homes and communities—are fully addressed before any permits are granted.	SO-2	As discussed in EIS Section 3.4.4.2.2, property values are dynamic and influenced by a combination of factors (e.g., market conditions, neighborhood characteristics, proximity to schools, and real property characteristics). Therefore, the overall effect of the Proposed Action on property values cannot be determined at this time. The median listing prices for homes in Brevard and Volusia Counties have been increasing over the last several years due to economic and population growth. It is anticipated that recent trends in property valuations would continue into the near future. However, the presence and operation of the Starship-Super Heavy could be considered undesirable for some residents and could result in lowered property values for private residential uses. In contrast, some of the affected neighborhoods could remain sought-after locations due to amenities such as proximity to work or employment and economic opportunities. Some persons may seek out homes in the area due to proximity to the Space Coast.
Anonymous	FAA-2024-1395-0105-0001	I attended a Space X public information session, and one thing they did not comment on is the likely devaluation of property. Most of us who are property owners did not sign up for the noise pollution that has gone from zero to massive in a short time period. It will be very difficult to sell a home/condo with the feature of night-time awakening, window/building damage due to vibrations, and possible hearing loss in the impact zone where several communities will definitely be	SO-2	See response SO-2.

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		impacted. I can only imagine how our home insurance rates will skyrocket (no pun intended).		
American Association of Nude Recreation-Florida Region	FAA-2024-1395-0169-0015	The previous conclusion also ignores the importance of travel and tourism to Florida, Puerto Rico, and the United States Virgin Islands. As published by the American Association for Nude Recreation, the annual economic impact of nude recreation in Florida is over $7.4 Billion annually. The lower number of days the beach is available will lead to a lower amount of travel, tourism, and stays in Florida.	SO-3	See response SO-3.
Evan Nix	FAA-2024-1395-0156-0003	Account for the economic importance of naturist tourism.	SO-3	EIS Section 3.4.4 addresses potential impacts to tourism as a whole.
Sanford Airport Authority	FAA-2024-1395-0308-0016	Model the overall economic impacts to Central Florida tourism.	SO-3	See response SO-3.
American Association of Nude Recreation-Florida Region	FAA-2024-1395-0169-0005	As you consider whether KSC is the ideal location for SpaceX expansion, we urge you to consider the maritime effects on Florida's economy. We are the fourth-largest state for goods exports [Footnote 1: https://oec.world/en/profile/country/usa].	SO-4	EIS Section 3.16.4 addresses potential effects to maritime traffic. While difficult to quantify given certain variables, EIS Section 3.4.4.2.2 acknowledges that Starship-Super Heavy operations would have potential effects to maritime activities if operations result in delays, reroutes, and cancellations. The Port of Canaveral must coordinate launch schedules with cruise ship departures, as a rocket delay could force cruise ships to alter their departure times, and launch closures can impact other port operations, requiring the management of activities and schedules for cruise lines, tugs, and cargo ships that use the Port's facilities. As a result, the Port works closely with NASA and Cape Canaveral Space Force Station to coordinate maritime activities during launches and landings. A specific and comprehensive economic business case analysis would be required to fully quantify the effects of launch activity along the Space Coast, which is outside the scope of this EIS.
American Association of Nude	FAA-2024-1395-0169-0019	As you consider whether KSC is the ideal location for SpaceX expansion, we will urge you to consider the maritime effects on Florida's economy. We are the	SO-4	See response SO-4.

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Recreation-Florida Region		sixth-largest state for goods exports, following Texas, California, New York, Louisiana, and Illinois.[Footnote 16: Google search results for "the sixth-largest state for goods exports"] We are a leading exporter of aerospace products and parts, with major companies including Lockheed Martin and Northrop Grumman having a significant presence in the State.		
Marilyn Meyer	FAA-2024-1395-0123-0003	There needs to be a thorough economic impact study to the disruption of shipping, fishing, cruising and recreational water activities and to the disruption of commercial, business and personal flight activity out of Orlando international airport, Daytona Beach international airport, Melbourne international airport, Sanford, International Airport, and regional airports including Spaceport, Merritt Island, Orlando Executive, Dunn Airpark and all the flight facilities across Central Florida ... including the NOAA hurricane tracking facility at Lakeland -Linder Airport and the large Amazon facility at the Lakeland airport	SO-4	See response SO-4.
Patricia E. Swope	TEMP-0021-0007	Temporary closure of a large area of the ocean and other waterways may have a negative impact on the cruise industry at Port Canaveral, Ft. Lauderdale, Miami and Tampa. This industry will be negatively impacted on when they can depart and dock and where they can sail safely.	SO-4	See response SO-4.
Kathleen Ritch	PublicMeeting-090325-0003-0004	How will that affect the tourism and fishing industries?	SO-5	EIS Section 3.4.4 addresses potential impacts to tourism as a whole. With regards to effects to maritime commerce, see response SO-4.
Anonymous	FAA-2024-1395-0281-0020	The Draft EIS does not clearly account for or quantify the economic cost to airlines, shippers, cruise operators, or import/export operations resulting from these closures.	SO-7	The EIS acknowledges that there would be effects to air traffic and maritime traffic (see EIS Section 3.4.4 and Section 3.16.4, respectively) and that these effects may be adverse. To assess in a quantitative nature the effects of Space Coast operations on entire industries a specific and comprehensive economic business case analysis would be required, which is outside the scope of this EIS.

Issue ID: 6	Issue Name: Socioeconomics			
Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
Anonymous	FAA-2024-1395-0436-0056	The Draft EIS does not clearly account for or quantify the economic cost to airlines, shippers, cruise operators, or import/export operations resulting from these closures.	SO-7	See response SO-7.
Anonymous	FAA-2024-1395-0281-0062	The EIS does not appear to assess cascading delays (e.g. delayed flights causing missed connections, extra fuel burn, crew rescheduling, ripple effects) in its cost assessments.	SO-8	The EIS acknowledges that there would be additional effects associated with scrubs/delays (see EIS Section 3.4.4). See response LU-1 for more information regarding launch delays.
Anonymous	FAA-2024-1395-0436-0058	The EIS does not appear to assess cascading delays (e.g. delayed flights causing missed connections, extra fuel burn, crew rescheduling, ripple effects) in its cost assessments.	SO-8	See response SO-8.
Anonymous	FAA-2024-1395-0281-0063	There is little in the EIS about “maximum tolerable delay thresholds” for ports, airports, or shipping industries, or what constitutes acceptable disruption.	SO-9	The EIS does not attempt to identify “acceptable disruptions,” but to identify and present potential effects. EIS Section 3.4.4.2.2 acknowledges that Starship-Super Heavy operations would have potential effects to maritime and airspace activities if operations result in delays, reroutes, and cancellations. For example, the Port of Canaveral must coordinate launch schedules with cruise ship departures, as a rocket delay could force cruise ships to alter their departure times, and launch closures can impact other port operations, requiring the management of activities and schedules for cruise lines, tugs, and cargo ships that use the Port’s facilities. As a result, the Port works closely with NASA and CCSFS to coordinate maritime activities during launches and landings.
Anonymous	FAA-2024-1395-0436-0059	There is little in the EIS about “maximum tolerable delay thresholds” for ports, airports, or shipping industries, or what constitutes acceptable disruption.	SO-9	See response SO-9.
Anonymous	FAA-2024-1395-0281-0066	What is the estimated economic cost (in dollars per closure or per event, and annually under full proposed launch schedule) of flight delays, rerouting, extra fuel burn, crew overtime, missed connections, ground stops, etc., for affected airports (e.g., Orlando, Miami, Tampa)?	SO-10	See Section 3.16.4.2.2 of the Final EIS, with information added, for discussion of the potential transportation impacts of the Proposed Action. Estimating the economic impact that the Proposed Action may have on airspace and maritime activities is challenging

Issue ID: 6	Issue Name: Socioeconomics			
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				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 reentry activity is sensitive to the timing of pre-launch 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 Starship-Super Heavy operations become more reliable at KSC, 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 SpaceX, the DAF, the FAA, and the 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 may be overstated and unreliable and, as

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Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
				such, too speculative to reasonably inform the decision-maker's choice among potential alternatives.
Anonymous	FAA-2024-1395-0436-0061	What is the estimated economic cost (in dollars per closure or per event, and annually under full proposed launch schedule) of flight delays, rerouting, extra fuel burn, crew overtime, missed connections, ground stops, etc., for affected airports (e.g., Orlando, Miami, Tampa)?	SO-10	See response SO-10.
Greater Orlando Aviation Authority	FAA-2024-1395-0426-0006	Disruption of air service due to the issuance of the Vehicle Operator License in Central and South Florida can potentially result in economic impacts that have not been analyzed or quantified. No fiscal economic impact analysis is included in the FAA EIS or the Air Force EIS resulting from the airspace restrictions' impacts to the NAS. The Aviation Authority recommends that these impacts be fully analyzed and disclosed. Understanding the significance of these impacts will inform the need for and the level of mitigation efforts required for airspace impacts.	SO-10	See response SO-10.
Sanford Airport Authority	FAA-2024-1395-0308-0014	Model the economic impacts to air carrier operations for SFB] in the Final EIS, to include Allegiant Air, Arajet, and Sun Country.	SO-10	See response SO-10.
Sanford Airport Authority	FAA-2024-1395-0308-0015	Model flight training impacts for SFB] in the Final EIS, both economically for SFB based training companies as well as the impacts to the ongoing nationwide pilot shortage.	SO-10	See response SO-10.
DOI	FAA-2024-1395-0296-0001	Page #: ES-33 Comment: On p. ES-33, second paragraph should be revised to "NPS could experience a range of annual fee loss due to closures potentially between $239,000 and $423,000, which equates to a potential annual average revenue loss of between approximately 13 percent and 24 percent."	SO-11	Change made.
DOI	FAA-2024-1395-0296-0002	Page #: ES-33 Comment: The NPS appreciates the FAA's inclusion of a more comprehensive economic analysis	SO-11	See response SO-11.

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Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
		and description of anticipated economic effects in the revised EIS. However, the EIS somewhat misinterprets the travel cost analysis and should be revised to more accurately capture the relevant economic concepts. On p. ES-33 the NPS recommends revising the sentence "Persons visiting the park that are turned away due to closures would experience a loss of time spent and related travel costs…" to instead state "Persons that are unable to visit the park due to closures would experience a loss of net economic value associated with a park visit. A robust notification and awareness system would serve to reduce this potential."		
DOI	FAA-2024-1395-0296-0017	Page #: 3-74 Comment: Bottom of p. 3-74, bullet should instead state "…Approximate Potential Annual Average Lost Revenue (high end) = $423,000."	SO-11	See response SO-11.
DOI	FAA-2024-1395-0296-0018	Page #: 3-74 Comment: In the NPS' economic analysis (NPS, 2025), $6,684 is the daily revenue on a weekend day (not over the entire weekend). P. 3-74, Land Management/Use section should instead read "…fee revenues vary depending on the day of the week and time of the year, averaging $3,946 on a weekday, $6,684 on a weekend day, and $8,379 on a holiday…"	SO-11	See response SO-11.
DOI	FAA-2024-1395-0296-0019	Page #: Top of p. 3-75, second bullet should instead state "…49.5 (weekend days of closure) multiplied by $6,684 (average weekend day revenue) = approximately $331,000."	SO-11	See response SO-11.
DOI	FAA-2024-1395-0296-0020	Page #: 3-75 Comment: P. 3-75, second paragraph should be revised to "Based on the average fee revenue numbers provided by NPS (NPS, 2025), average annual fee revenues for 11 holidays ($8,379 each = $92,169), 104 weekend days ($6,684 each = $695,136), and 250 remaining weekdays ($3,946 each = $986,500) for the CANA Playalinda District are approximately $1,774,000. With the range of annual fee loss potentially between $239,000 and $423,000 that equates to a potential	SO-11	See response SO-11.

Issue ID: 6	Issue Name: Socioeconomics			
Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
		annual average revenue loss of between approximately 13 percent and 24 percent."		
DOI	FAA-2024-1395-0296-0022	Page #: 3-75 Comment: The NPS has provided the FAA with an updated estimate of the average value per visitor-day lost due to a closure that excludes the opportunity cost of a visitor's travel time. This more conservative estimate is $40.89 per visitor-day.	SO-11	See response SO-11.
DOI	FAA-2024-1395-0296-0023	Page #: 3-75 Comment: On p. 3-75, third paragraph – The NPS recommends revising to "With regard to visitor impact, closures during launch/landing operations would adversely impact individuals who want to visit the park; the situation would be exacerbated when launches/landings are scheduled during high-use times such as holidays and weekends. People intending to visit the park that are unable to access it due to a closure would experience a loss of net economic value (i.e., consumer surplus).Using data from a recent visitor survey conducted at CANA and a travel cost model that accounts for factors such as the number of trips taken to the park, travel distance, and demographic characteristics (income, age, and gender), the NPS estimates an average net economic value of $40.89 per visitor-day lost due to a closure (NPS, 2025). Advance notification to the public of launch schedules would help some visitors plan accordingly and find substitute recreation sites on closure days and would help to reduce the number of people turned away who are unaware of the closures."	SO-11	See response SO-11.
Anonymous	FAA-2024-1395-0283-0003	A reliable source from the Southeastern Fisheries Association, who reports the economic impacts and losses to the shrimping and fishing businesses operating in the adjacent ocean areas and waterways from restricted access to prime fishing or shrimping locations, and damage to equipment and the financial burden caused by loss of productive time and expense	SO-12	The FAA, within the context of the EIS (see EIS Section 3.4.4) acknowledges that there may be adverse effects to local fish harvesters. However, there is a lack of empirical data that allows a quantification of monetary effects to local fishery operators. Most information is anecdotal—the South Atlantic Fishery Management Council is working to create a working group to analyze data related to frequency of launches,

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		of repairs, would pose a great hardship on this locally based industry. Additionally, a local fisherman, outdoor guide, environmentalist and television host who grew up in the area has also Seen the impact on the current launch community and it's wildlife, people, and nearby fishing business from the Space X Super-Heavy Launch Vehicle. In both of these men's professional opinions, launching in our county would have a large negative impact on the fishing and shrimping businesses, as it has in current test launch location.		hazard zones, and space debris and their impacts on local fisheries. While individuals may experience a significant effect, based on their specific operational situation (e.g., perhaps they are a single-source operator with one boat that misses a day of harvest), launch activities are not likely to significantly affect the southeastern fisheries industry as a whole.
Southeastern Fisheries Association	FAA-2024-1395-0440-0002	there is the negative social and economic impact to the commercial seafood and fishing industries located in and around the Cape area. We have provided information about the excessive closures to commercial fishing vessel traffic before, during and after launches causing loss of income due to restricted access to fishing grounds and to returning from sea with fresh fish onboard the vessels. This loss of income expands to the processors located in the area and eventually to the negative impact on consumers who visit the restaurants and seafood markets wanting fresh American seafood.	SO-12	See response SO-12.
Southeastern Fisheries Association	FAA-2024-1395-0440-0005	Commercial fishers in the area mainly target pompano, Spanish mackerel, king mackerel, bluefish and roe mullet. One of their most productive areas is Chris Benson Reef, which is located 10-12 miles NE of SLC 39A and 39B. Launch area closures occur between Chris Benson and Port Canaveral, cutting off access to Chris Benson.	SO-12	See response SO-12.
Southeastern Fisheries Association	FAA-2024-1395-0440-0006	Your statement that over half of your launches will occur at night therefore not impacting commercial fisheries was apparently made by someone completely unaware of how commercial fisheries are prosecuted. Launching rockets at night and restricting navigation will serve to only further restrict commercial fishing activity as fishers often travel to fishing areas at night to	SO-12	See response SO-12.

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		begin fishing at daylight. Working commercial fishers state the noise and vibration from rocket launches affect fish behavior. The fish leave following a rocket launch. It takes 3-5 days for the fish to come back. When the next rocket launches, the fish leave again.		
Southeastern Fisheries Association	FAA-2024-1395-0440-0007	The proposed increase in launches will make it impossible for finfish fishers to make a living fishing out of Port Canaveral. Fishers state that last winter's Spanish mackerel season was the worst they have Seen. The fish showed up during their seasonal migration and they were able to fish for a couple of days, but when a rocket launched, the fish disappeared and did not return for the remainder of the season.	SO-12	See response SO-12.
Southeastern Fisheries Association	FAA-2024-1395-0440-0008	In your EIS the following statement may be true: The amount of fishing activity that could be affected within the ROI from vessel restrictions would be a small fraction of the amount of fishing within the South Atlantic Region and would have a minimal effect on southeastern U.S. fishing operations. Your proposed operation does not cover the entire South Atlantic Region so therefore this statement does not apply. Fishers who live in the Cape area who fish out Port Canaveral, the majority who are historical multigenerational fishers, the increase in rocket launches will have a significant impact on their livelihood.	SO-12	See response SO-12.
Southeastern Fisheries Association	FAA-2024-1395-0440-0009	There is another statement in your EIS that implies that fishers can just go to other areas to fish. This is a false statement, and one made by someone who has no concept of how commercial fishing operates. (Local commercial fishing operations should be able to temporarily adjust their routes or find other suitable locations to fish to avoid revenue loss during these restricted activities.) Fish congregate near hard structures, and there's not a lot of hard structures	SO-12	See response SO-12.

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Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
		around Port Canaveral, especially as you go south of the Port. If the fish are hanging out at Chris Benson Reef, it's not that simple to just go find another patch of hard bottom on which to fish.		
EPA Region 4	TEMP-0030-0003	Nitrous Oxide The draft EIS notes nitrous oxide (NOx) can have adverse health effects on children. According to the draft EIS, "total NOx emissions – including both construction (11.11 tons per year) and operational (374.55 tons per year) sources – are estimated at 385.66 tons per year, exceeding the insignificance indicator threshold of 250 by approximately 54 percent". Mitigation Strategies As required by 42 U.S.C. § 4332(C)(i) and pursuant to Executive Order 13045, Protection of Children from Environmental Health Risks and Safety Risks, the EPA recommends the final EIS address disproportionate effects of NOx emissions to children and discuss possible mitigation efforts.	SO-13	Children's Environmental Health and Safety Risks associated with air quality are addressed in EIS Section 3.4.4.2; additional clarification regarding NO_x emissions has been added to this section.
United Launch Alliance, LLC. United Launch Services, LLC	FAA-2024-1395-0376-0020	Assessing operational impacts are a key part of the NEPA process and the Draft EIS is required to provide due consideration and evaluation of these impacts under the law. Under NEPA, federal agencies must conduct a detailed assessment of a proposed project's "reasonably foreseeable environmental effects." [Footnote 43: 42 U.S.C. § 4332(C)(i).] Neighboring operations are a key part of the "environment" at LC-39A. Starship-Super Heavy launches will not occur "in a vacuum." [Footnote 44: Grand Canyon Trust v. FAA, 290 F.3d 339, 342 (D.C. Cir. 2002).] The "environmental effects" from SpaceX's proposed operations necessarily include impacts, physical and economic, on neighboring operators and United States government facilities. [Footnote 45: See, e.g., RB Jai Alai, LLC v. Sec'y of Fla. Dep't of Transp., 47 F. Supp. 3d 1353, 1363 (M.D. Fla. 2014) (recognizing that under NEPA neighboring businesses had "interests in their workplace	SO-14	NEPA does not require a cost-benefit analysis. However, if a cost-benefit analysis is used, NEPA does require Federal agencies to consider the relationship between monetized analyses and other qualitative environmental considerations. Agencies are not mandated to monetize environmental impacts. NEPA only requires that "All agencies of the Federal Government shall... Include in every recommendation or report on proposals for legislation and other major Federal actions significantly affecting the quality of the human environment, a detailed statement by the responsible official on -... current and foreseeable trends in the quality, management and utilization of such environments and the effects of those trends on the social, economic, and other requirements of the Nation." In this case, the EIS does acknowledge that there may be individualized effects to other launch providers and that these need to be resolved through coordination with KSC and CCSFS Range

Issue ID: 6	Issue Name: Socioeconomics			
Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
		environment, their individual health and safety, and their respective business or employment interests").]In this case, NEPA supports conducting a cost-benefit analysis of the Proposed Action, which must consider and quantify the resulting financial impacts to other launch providers.		Management. However, these effects would not necessarily rise to a significant economic effect on a nation-wide scale.
Surfrider Foundation Space Coast Chapter	FAA-2024-1395-0439-0009	Despite acknowledgement of this revenue loss and detrimental impact to the park's maintenance, the Draft EIS does not contain additional detail regarding how these consequences will be addressed and managed. The Draft EIS does not analyze estimated losses to tourism, the recreational industry, and other local businesses that may be impacted by closures.	SO-15	EIS Section 3.4.4 addresses tourism, the recreational industry, and potential effects on the local economy.
Southeastern Fisheries Association	FAA-2024-1395-0440-0004	The use of Table 3.4-1. South Atlantic Region Commercial Fishery Revenue by Species for 2022 is not representative of the commercial landings at Port Canaveral, FL. Therefore, it is not representative of the economic harm that has occurred for fishers working out of Port Canaveral. A more accurate picture of the increasing impact of rocket launches from KSC/CCSFS on the nearby commercial fishing industry will be Seen by analyzing Brevard County catch data from Florida's Fish and Wildlife Conservation Commission (FWC). A look back in time will show the reduction in annual catches caused by the inability of fishers to access their normal fishing grounds due to the restricted access for navigation before, during, and after launches.	SO-16	See response SO-12 regarding fisheries. Catch data, as well as revenue for that matter) can be influenced by many factors, including a combination of environmental, biological, human, technological, economic, and political factors. These elements interact in complex ways, affecting the abundance, distribution, and vulnerability of fish stocks and shaping fishing practices and reporting.

Notes: CANA = Canaveral National Seashore; CCSFS = Cape Canaveral Space Force Station; DAF = Department of the Air Force; EIS = Environmental Impact Statement; FAA = Federal Aviation Administration; KSC = Kennedy Space Center; NASA = National Aeronautics and Space Administration; NEPA = National Environmental Policy Act; NOTAM = Notice to Airmen; NOTMAR = Notice to Mariners; NO_x = nitrogen oxides; SpaceX = Space Exploration Technologies Corp.; USCG = United States Coast Guard.

Issue ID: 8	Issue Name: Historical, Architectural, Archaeological, and Cultural Resources			
Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
Danielle A. Simon (Seminole Tribe of Florida Tribal Historic Preservation Office)	TEMP-0028-0001	Through the Section 106 process, the Federal Aviation Administration (FAA), National Aeronautics and Space Administration (NASA), and other consulting parties have determined that, due to the unprecedented nature of the project, a final determination of effects to cultural resources cannot be made before project implementation. Likewise, Section 3.5 of the draft Environmental Impact Statement acknowledges that "no studies have been completed in Florida, to date, that examine the type of impacts to cultural resources" that may be associated with the proposed action. Moreover, "the effects of repeated sonic boom overpressure events on subsurface archeological sites, if any, are poorly understood" and "any effects potentially resulting from such events have not been systematically documented." Furthermore, the draft EIS states that "an alteration to subsurface archaeological deposits at a site due to vibration or overpressure events cannot be readily ascertained." The need for a project-specific archaeological monitoring study is clear.	CR-1	Such a study is included as part of the NHPA Section 106 Programmatic Agreement included in Appendix B of the EIS.
Danielle A. Simon (Seminole Tribe of Florida Tribal Historic Preservation Office)	TEMP-0028-0002	Throughout consultation under Section 106 of the National Historic Preservation Act, the Seminole Tribe has expressed concerns that the proposed action's potential impact on archeological resources cannot be readily ascertained, and, therefore, any monitoring program proposed to measure potential effects must be robust and comprehensive in nature/scope. On September 8, 2025, NASA submitted the second draft of the Programmatic Agreement, and, at this time, the Seminole Tribe finds its previous comments/concerns have not been fully addressed and/or resolved. Notably, a formal, detailed archeological monitoring plan has yet to be developed, and there are no assurances a program will be in place to collect	CR-1	See response CR-1.

Issue ID: 8	Issue Name: Historical, Architectural, Archaeological, and Cultural Resources			
Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
		sufficient data/capture reasonably foreseeable effects that may result from compounded launches at the cadence proposed.		
National Parks Conservation Association	FAA-2024-1395-0360-0016	Under the National Historic Preservation Act (NHPA), the FAA must identify historic properties within the area of potential effects, assess all effects caused by the proposed action, and consult with the Florida State Historic Preservation Officer (SHPO), affected Tribes, and other relevant stakeholders. [Footnote 29: Section 106, 54 U.S.C. § 306108] The DEIS does not include a full range of avoidance, minimization, and mitigation strategies, as it states that "a final determination of how Starship-Super Heavy launch and landing activities will affect historic properties is not possible at this time, NASA, in coordination with the FAA, intends to develop and execute a PA pursuant to 36 CFR§ 800.14(b)."	CR-1	See response CR-1.
National Parks Conservation Association	FAA-2024-1395-0360-0017	(1) evaluate structural integrity risks to historic/archaeological resources;	CR-1	See response CR-1.

Notes: EIS = Environmental Impact Statement; NHPA = National Historic Preservation Act.

Issue ID: 10	Issue Name: DOT Section 4(f)			
Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
Anonymous	FAA-2024-1395-0281-0055	· The EIS states that no "use" of Section 4(f) resources will occur, yet acknowledges extensive closures of Playalinda Beach and Canaveral National Seashore. · No legal analysis is provided to reconcile this apparent conflict.	4(f)-1	Section 3.7 of the EIS describes the methodology for assessing constructive use within the context of DOT Section 4(f). As stated in section 3.7.1 of the EIS, the FAA has determined, for the reasons explained in this section, that it is not required to prepare a Section 4(f) evaluation for this project for MINWR, managed by the USFWS, or CANA, managed by the NPS (Figure 3.7-1).
Anonymous	FAA-2024-1395-0281-0058	Has a formal Section 4(f) evaluation been performed, and if so, what was the outcome?	4(f)-1	See response 4(f)-1.

Issue ID: 10	Issue Name: DOT Section 4(f)			
Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
Anonymous	FAA-2024-1395-0281-0060	How is the FAA defining “no use” in its Section 4(f) determination, given that closures restrict public use and access for tens of thousands of visitors annually?	4(f)-1	See response 4(f)-1.
Anonymous	FAA-2024-1395-0436-0011	Has a formal Section 4(f) evaluation been performed, and if so, what was the outcome?	4(f)-1	See response 4(f)-1.
Anonymous	FAA-2024-1395-0436-0013	How is the FAA defining “no use” in its Section 4(f) determination, given that closures restrict public use and access for tens of thousands of visitors annually?	4(f)-1	See response 4(f)-1.
Jeremy Hanzlik	FAA-2024-1395-0357-0001	in the 4(f) analysis, the DEIS states “The Section 4(f) assessment concluded that public parks and recreation areas would not be substantially impaired as a result of the Proposed Action.” I disagree with this statement on the basis that frequency of closures for public access of 4(f) resources would take place during SpaceX launches and landings. This would impact the clothing-optional area at Playalinda Beach in Brevard (parking lot #13). Apollo Beach in Volusia County may be affected as clothed beachgoers, who are dealing with closures, migrate North, prompting user conflict. The FEIS needs to address this potential conflict and address what mitigative measures will be taken to ensure access for the public Seeking clothing-optional beach access, which is well-documented to be exceptionally limited. The current exceptionally limited access (i.e., existing condition prior to the proposed action) makes the resulting impact a very substantial impact because there are no alternatives within more than 100 miles for beach goers and as frequency of closure increases, impact will increase.	4(f)-1	See response 4(f)-1.
National Parks Conservation Association	FAA-2024-1395-0360-0001	The DEIS claims an exemption from 4(f) analysis, however, based on the following, NPCA recommends the 4(f) analysis should be completed before the final EIS is published in order to be in compliance with the National Transportation Act. Section 4(f) of the National	4(f)-1	See response 4(f)-1.

Issue ID: 10	Issue Name: DOT Section 4(f)			
Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
		Transportation Act states as follows: "After the effective date of this Act, the Secretary shall not approve any program or project which requires the use of any land from a public park, recreation area, wildlife and waterfowl refuge, or historic site unless (1) there is no feasible and prudent alternative to the use of such land, and (2) such program includes all possible planning to minimize harm to such park, recreational area, wildlife and waterfowl refuge, or historic site resulting from such use." [Footnote 1: 49 U.S.C. §303]		
National Parks Conservation Association	FAA-2024-1395-0360-0003	The 2019 Environmental Assessment (2019 EA) incorporated by reference throughout the DEIS indicated there was not enough information at the time of EA preparation "to conduct a sufficient 4(f) analysis with respect to potential impacts and constructive use. Specifically, the details regarding potential closures or restricted access of Section 4(f) properties is unknown." [Footnote 4: 2019 EA, pg. x] The DEIS now has the necessary information on estimated closures and restricted access, indicating CANA and the Playalinda beach area would be closed around 60.5 full days per year, equating to about 16.5 percent of the year. [Footnote 5: 2025 DEIS, pg. 3-57] This closure number is also likely to greatly underestimate the total number of closure days annually, as it does not take into account weather delay and launch scrubs. Thus, the FAA should conduct a full evaluation under Section 4(f) in the final EIS to analyze other feasible and prudent options, and fully assess the necessary mitigation for impacts of the proposed action.	4(f)-1	See response 4(f)-1.
National Parks Conservation Association	FAA-2024-1395-0360-0002	LC39A is surrounded by Merritt Island National Wildlife Refuge and Canaveral National Seashore is within the area that would be impacted by launch activities; as such, this is an improper use of an exemption from the law as both the refuge and the national seashore are	4(f)-2	The regulation cited was promulgated by the FHWA. That regulation is not binding on the FAA, but the FAA may use it as guidance to the extent appropriate. In this case, the FAA did extensive research into the history of KSC, MINWR, and CANA and determined that the latter two properties fell

Issue ID: 10	Issue Name: DOT Section 4(f)			
Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
		qualified 4(f) properties. The DEIS cites 23 CFR §774.11(i) to authorize the exemption from Section 4(f) review. The rule provides as follows: "When a property is formally reserved for a [Underline: future transportation facility] before or at the same time a park, recreation area, or wildlife and waterfowl refuge is established, and concurrent or joint planning or development of the transportation facility and the Section 4(f) resource occurs, then any resulting impacts of the transportation facility will not be considered a use as defined in [§ 774.17 (https://www.ecfr.gov/current/title-23/section-774.17)] (emphasis added)." [Footnote 2: 23 CFR §774.11(i)]		within the scope of the exception. The FAA found the FHWA regulation relevant and its purpose persuasive and applied the exception to MINWR and CANA in this case.
Friends of Canaveral, Inc.	FAA-2024-1395-0298-0005	Moreover, the National Park Service Organic Act requires that resources and values be left "unimpaired for the enjoyment of future generations." Denying visitor access for such a large portion of the year, diverting staff away from resource protection and interpretation, and reducing fee revenues that support operations cumulatively rise to the level of impairment. This is especially acute for CNS, which is uniquely reliant on fee revenues to sustain its programs/operations; lost income from canceled visitation directly threatens the park's ability to deliver on its statutory purpose.	4(f)-3	The FAA is not bound by the Organic Act. The NPS is a Cooperating Agency for this EIS.
Friends of Canaveral, Inc.	FAA-2024-1395-0298-0010	When CNS was established in 1975, Congress required the Department of Interior (DOI) and National Aeronautics and Space Administration (NASA) to adopt a cooperative management agreement. The cooperative agreement was with NASA rather than the Department of Transportation, and there was no contemplation that portions of CNS could be used as a "future transportation facility." Rather, the enabling legislation directs the agreement to provide assurance of "the use of such lands in a manner which is deemed	4(f)-4	"The use of such lands in a manner which is deemed consistent with the public safety and with the needs of the space and defense programs of the Nation." The need for closure of small parts of CANA is to meet the needs of the space and defense programs of the nation as described in the EIS Purpose and Need (Section 1.3), and supports public safety in this regard (the closure is specifically for public safety). "That no new construction or development shall be permitted within the seashore..." As noted in EIS Section

Issue ID: 10	Issue Name: DOT Section 4(f)			
Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
		consistent with the public safety and with the needs of the space and defense programs of the Nation." The enabling further restricts any new development, stating "That no new construction or development shall be permitted within the seashore, except for the construction of such facilities as the Secretary deems necessary for the health and safety of the visiting public or for the administration of the seashore." Accordingly, there is no reservation of any "future transportation facility," or exemption of impacts from third-party private lessees of NASA.		2.1.4, there is no construction or development proposed on CANA.
Friends of Canaveral, Inc.	FAA-2024-1395-0298-0001	Section 4(f) of the Department of Transportation Act prohibits approval of projects that "use" publicly owned parks, recreation areas, or wildlife refuges unless there is no feasible and prudent alternative and harm is minimized. The proposed closures at CNS constitute such a "use" and trigger the heightened protections of Section 4(f). In addition, Secretarial Order 3426 (April 2025) requires that closures of national park units for space operations be reviewed and approved at the highest levels of the Department of the Interior, underscoring the gravity and national importance of maintaining the accessibility of these sites.	4(f)-5	Section 3.7 of the EIS describes the methodology for assessing constructive use within the context of DOT Section 4(f). 23 CFR §774.11(i) "When a property is formally reserved for a future transportation facility before or at the same time a park, recreation area, or wildlife and waterfowl refuge is established," – KSC acquired Center land and was established in 1962; the MINWR was then established in August 1963 to provide a buffer zone for the space operations; CANA was established in 1975 – ... "then any resulting impacts of the transportation facility will not be considered a use..."
Friends of Canaveral, Inc.	FAA-2024-1395-0298-0006	The 2006 NPS Management Policies reinforce these points, in that they provide that closures or restrictions of public use may only be implemented when they are necessary to protect park resources, to protect public safety, or to avoid unacceptable impacts, and must be the "minimum restriction necessary" to achieve those ends. Repeated and prolonged closures for commercial space launch operations—an activity wholly unrelated to the Seashore's statutory purposes— cannot reasonably be viewed as the minimum restriction necessary to protect resources or visitor safety. Instead, they represent a wholesale diversion of public lands to	4(f)-6	See responses 4(f)-3, 4(f)-4, and 4(f)-5.

Issue ID: 10	Issue Name: DOT Section 4(f)			
Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
		a private use, directly at odds with the NPS governing policies.		
Anonymous	FAA-2024-1395-0436-0009	The EIS states that no "use" of Section 4(f) resources will occur, yet acknowledges extensive closures of Playalinda Beach and Canaveral National Seashore. No legal analysis is provided to reconcile this apparent conflict. The document does not disclose NPS's formal position on whether such closures are consistent with its statutory mission.	4(f)-6	See response 4(f)-6.
Friends of Canaveral, Inc.	FAA-2024-1395-0298-0008	The DEIS claim that Section 4(f) review is exempt is unprecedented. The DEIS asserts a "Joint Development Exemption" authorized by 23 CFR §774.11(i) and thus not subject to Section 4(f) evaluation." This is a stunning development since all previous Environmental Impact Statements for proposed activities within Kennedy Space Center have included a Section 4(f) analysis. This includes the 2016 Programmatic Environmental Impact Statement (PEIS) for Kennedy Space Center, and the proposed Shiloh Spaceport (2015) which did not move forward as it was unable to meet the requirements of Section 4(f) and 106 review.	4(f)-6	See response 4(f)-6.
Friends of Canaveral, Inc.	FAA-2024-1395-0298-0009	LC39A is surrounded by Merritt Island National Wildlife Refuge and CNS is within the area that would be impacted by launch activities; as such, this is an improper use of exemption from the law as both the refuge and the national seashore are qualified 4(f) properties.	4(f)-6	See response 4(f)-6.
Friends of Canaveral, Inc.	FAA-2024-1395-0298-0011	The 2019 Environmental Assessment (2019 EA) incorporated by reference throughout the DEIS indicated there was not enough information at the time of EA preparation "to conduct a sufficient 4(f) analysis with respect to potential impacts and constructive use. Specifically, the details regarding potential closures or restricted access of Section 4(f) properties are	4(f)-6	See response 4(f)-6.

Issue ID: 10	Issue Name: DOT Section 4(f)			
Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
		unknown." The DEIS now has the necessary information on estimated closures and restricted access, indicating CNS and the Playalinda beach area would be closed around 60.5 full days per year, equating to about 16.5 percent of the year. This closure number is also likely to greatly underestimate the total number of days closed annually, as it does not consider weather delays or launch scrubs. Thus, the FAA should conduct a full evaluation under Section 4(f) in the final EIS to analyze other feasible and prudent options and fully assess the necessary mitigation for impacts of the proposed action.		
Friends of Canaveral, Inc.	FAA-2024-1395-0298-0007	Taken together, the proposed action's recurring closures impair the Seashore's congressionally mandated recreational values, contravene the Organic Act's no-impairment standard, and violate the NPS Management Policies' requirement that closures be narrowly tailored and justified. These impacts also trigger the protections of NEPA and Section 4(f). Unless and until the FAA and cooperating agencies rigorously evaluate less harmful alternatives that avoid or substantially reduce closures, minimize and mitigate the length of such closures, and identify clear mitigation measures to offset the economic impacts that can occur, the proposal cannot lawfully proceed.	4(f)-6	See response 4(f)-6.

Notes: § = Section; CANA = Canaveral National Seashore; CFR = Code of Federal Regulations; DOT = United States Department of Transportation; EIS = Environmental Impact Statement; FAA = Federal Aviation Administration; FHWA = Federal Highway Administration; KSC = Kennedy Space Center; MINWR = Merritt Island National Wildlife Refuge; NASA = National Aeronautics and Space Administration; NPS = National Park Service; USFWS = United States Fish and Wildlife Service.

Issue ID: 11	Issue Name: Biological Resources			
Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
Everett Creighton	FAA-2024-1395-0093-0001	Who is studying the impact of all these rocket launches on the grasshopper sparrow, gopher tortoise and al sea turtles? I want to See the impact study.	BR-1	The potential effects (to include cumulative effects [i.e., "reasonably foreseeable effects"]) to wildlife, vegetation, habitats, and protected species from noise, overpressure,

Issue ID: 11	Issue Name: Biological Resources			
Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
				heat plumes, water quality effects, and pollutants are addressed in EIS Section 3.8. NASA, in coordination with FAA, has completed an Endangered Species Act Section 7 consultation with the USFWS regarding the potential effects of the Proposed Action on threatened and endangered species and critical habitat, to include sea turtles, scrub-jay, and associated habitat (Biological Conference Opinion, Starship-Super Heavy Construction and Operations at LC-39 FWS Ecosphere Log Number: 2024-0058364, issued on October 20, 2025). The results of this consultation are provided in Appendix B of the EIS (as summary of the consultation process and the results are provided in EIS Section 3.8). The Biological Opinion released by the USFWS (and included in Appendix B) identifies many conservation measures and terms and conditions associated with mitigation activities in collaboration with the MINWR, the NPS, and NASA to minimize harm, including species monitoring and annual reporting requirements. The Biological Conference Opinion also outlines the annual coordination requirements between NASA, SpaceX, FAA, USSF, NPS, and the USFWS. Potential effects to marine mammals and nearshore environments from noise and overpressure events, and effects to essential fish habitat (e.g., Oculina Habitat Area of Particular Concern), were both addressed in separate consultations with NMFS and are included in Appendix B of the EIS). Ultimately, while take (to include harm) and incidental harassment were identified and authorized by the USFWS and NMFS, no jeopardy opinions were issued.
Anonymous	FAA-2024-1395-0112-0001	The possible negative impact on endangered and threatened species should be scrutinized before a decision is made.	BR-1	See response BR-1.
Anonymous	FAA-2024-1395-0281-0070	Absence of detailed longitudinal or multi-year data on reproduction, mortality, or behavior disturbance in	BR-1	See response BR-1.

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Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
		local sea turtles, shorebirds, manatees, and marine mammals under repeated launch exposure.		
Anonymous	FAA-2024-1395-0281-0071	No underwater noise / pressure modeling described for nearshore habitats or marine mammals which may be affected by splashdowns or reentry noise, or by engine plume coupling underwater.	BR-1	See response BR-1.
Anonymous	FAA-2024-1395-0281-0072	No clearly identified monitoring thresholds or independent auditors; uncertain whether mitigation or cadence reduction is triggered by actual observed harm.	BR-1	See response BR-1.
Anonymous	FAA-2024-1395-0281-0073	Provide species-specific impact assessments including nesting success, hatchling survival, foraging displacement, and behavioral stress for listed species, over multi-year projections.	BR-1	See response BR-1.
Anonymous	FAA-2024-1395-0281-0075	What monitoring, reporting, and independent auditing protocols exist for wildlife? Under what observed condition(s) would launches or operations be modified or halted?	BR-1	See response BR-1.
Anonymous	FAA-2024-1395-0422-0001	Definite impacts will occur to wildlife on KSC and CCSFS despite what the EISs say about “no significant or less than significant impacts.”[Footnote 2: Starship-Super Heavy Operations at Cape Canaveral Space Force Station, Florida, Environmental Impact Statement. https://spaceforcestarshipeis.com/]Footnote 3: SpaceX Starship-Super Heavy Launch Vehicle at Launch Complex 39A at Kennedy Space Center, Florida, Environmental Impact Statement; https://www.faa.gov/space/stakeholder_engagement/spacex_starship_ksc/SpaceX-SSH-at-LC-39A-Draft-EIS_Volume-I_Main-EIS.pdf] These conjectures are based on no consideration for all the research on negative effects to wildlife due to any kind of intense or repeated noise; because to avoid discussing negative effects, it is stated that rocket noise is not comparable	BR-1	See response BR-1.

Issue ID: 11	Issue Name: Biological Resources			
Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
		to noises that have been researched. Hundreds of publications show negative impacts to wildlife such as reproductive failures, hearing loss, stress, and extirpation from good habitat due to noise.[Footnote 8: Bureau of Reclamation/USGS Avian Noise Disturbance Study- https://webapps.usgs.gov/mrgescp/documents/Dillon-and-Moore_2020_Avian-Noise-Disturbance-Study.pdf] Footnote 9: https://wildlife.org/noise-light-pollution-impact-bird-reproduction/]		
Anonymous	FAA-2024-1395-0422-0002	The KSC EIS says that the sonic booms and noise won't generate into the ocean much. [Footnote 3: SpaceX Starship-Super Heavy Launch Vehicle at Launch Complex 39A at Kennedy Space Center, Florida, Environmental Impact Statement; https://www.faa.gov/space/stakeholder_engagement/spacex_starship_ksc/SpaceX-SSH-at-LC-39A-Draft-EIS_Volume-I_Main-EIS.pdf] Research does exist that shows that sonic booms can generate into shallow water and even deep ocean waters depending on the shape and overpressure of the sound waves.[Footnote 10: United States Air Force Research Laboratory. Determination of Aircraft Sonic Boom Noise Penetration into Seas, Bay, and Lakes for Environmental Assessment. Victor Sparrow. Pennsylvania State University. February 1998.] There is no research to determine if rocket infrasound and ultrasound affects whale and dolphin communication and feeding, manatee behaviors, or could prevent sea turtles from nesting on Brevard County beaches. With no research comes the "no or less than significant impacts" instead of requiring the research at Boca Chica to get answers before devastating Florida wildlife.	BR-1	See response BR-1.
Anonymous	FAA-2024-1395-0422-0004	If using barges hundreds of miles offshore for launches and landings is considered the answer to reduce	BR-1	See response BR-1.

Issue ID: 11	Issue Name: Biological Resources			
Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
		impacts, what kind of catastrophic impacts due to noise, heat and vibrations will be caused to offshore sea life especially with no research and broad brush assumptions of no significant impacts?		
Anonymous	FAA-2024-1395-0436-0033	Absence of detailed longitudinal or multi-year data on reproduction, mortality, or behavior disturbance in local sea turtles, shorebirds, manatees, and marine mammals under repeated launch exposure.	BR-1	See response BR-1.
Anonymous	FAA-2024-1395-0436-0034	No underwater noise / pressure modeling described for nearshore habitats or marine mammals which may be affected by splashdowns or reentry noise, or by engine plume coupling underwater.	BR-1	See response BR-1.
Anonymous	FAA-2024-1395-0436-0035	No clearly identified monitoring thresholds or independent auditors; uncertain whether mitigation or cadence reduction is triggered by actual observed harm.	BR-1	See response BR-1.
Anonymous	FAA-2024-1395-0436-0038	What monitoring, reporting, and independent auditing protocols exist for wildlife? Under what observed condition(s) would launches or operations be modified or halted?	BR-1	See response BR-1.
Anonymous	FAA-2024-1395-0422-0003	As stated earlier, the Indian River Lagoon borders the proposed KSC and CCSFS launch pads. This estuary is one of the most biodiverse ecosystems with over 11,000 species [Footnote 11: https://irlspecies.org/index.php] is critical for migratory birds as part of the Atlantic Flyway, and has high economic value. What will be the effects to this beloved Space Coast treasure?	BR-1	See response BR-1.
Anonymous	FAA-2024-1395-0436-0036	Provide species-specific impact assessments including nesting success, hatchling survival, foraging displacement, and behavioral stress for listed species, over multi-year projections.	BR-1	See response BR-1.
Anonymous N. Carpenter Rd,	FAA-2024-1395-0372-0004	The Draft EIS may underestimate the compound stressors facing species and habitats, including nutrient	BR-1	See response BR-1.

Issue ID: 11	Issue Name: Biological Resources			
Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
		pollution, noise, vibration, sonic booms, nighttime lighting, heat plumes, inadequate prescribed fires, and increased vessel traffic.		
Anonymous N. Carpenter Rd,	FAA-2024-1395-0372-0002	The Draft EIS conclusion of “no significant impact” does not evaluate how sonic boom frequencies may disrupt communication, alter spawning behavior, impact nesting success or diminish reproductive success of federally protected species.	BR-1	See response BR-1.
Anonymous N. Carpenter Rd,	FAA-2024-1395-0372-0003	The Draft EIS’s conclusions that operations would have “no significant impact on protected species” are inconsistent with known stressors and recent unusual mortality events of manatees, dolphins, pelicans and assorted shorebirds.	BR-1	See response BR-1.
Cameron Molberg	FAA-2024-1395-0355-0004	Canaveral National Seashore hosts critical habitats for endangered species and serves as an essential stopover for migratory birds. The EIS must address: Long-term cumulative impacts of rocket emissions on marine and terrestrial ecosystems Protection measures for nesting sea turtles and shorebirds during launch windows Water quality monitoring in adjacent lagoon systems	BR-1	See response BR-1.
Cheryl Rogers	FAA-2024-1395-0117-0003	I encourage the FAA and SpaceX to adopt robust wildlife monitoring, seasonal launch timing considerations, & collaboration with conservation experts to minimize harm. We cannot forget that Merritt Island is a National Wildlife Refuge. At the Texas Starbase site, previous Starship tests caused fires, habitat damage, and declines in bird populations - lessons that should not be repeated here.	BR-1	See response BR-1.
City of Titusville (Mayor Andrew Connors)	TEMP-0026-0002	Environmental Disruption: The sensitive ecosystems at Canaveral National Seashore are home to many protected species. The increased launch activity and infrastructure development could threaten their habitats.	BR-1	See response BR-1.

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Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
E A H	FAA-2024-1395-0442-0004	Biological & Water Resources: We respectfully request FAA to consider specific research reported regarding the impact on Biological and Water resources of Launch facility water wash off considering the ongoing increase of launch cadence at KSC/CCSFB Space Shuttle Blast-Offs Spewed Metals, Chemicals into Wildlife Refuge | Scientific American. Understanding that the Starship Heavy and Space Shuttle use different propulsion systems, regardless, a cumulative study should be run not only on launch pad wash, its affects on the PH/Salinity, as well as its heavy metal and toxic components, but it's over all accumulation in the natural biologic systems surrounding the areas.	BR-1	See response BR-1.
Frank Harris	TEMP-0007-0001	Your EIS does not Seem to give extensive information on impacts to vegetation and wildlife only mentions that you are "working with" USF&WS and NMFS "to determine effects"— so no information is available!	BR-1	See response BR-1.
Friends of Canaveral, Inc.	FAA-2024-1395-0298-0015	the DEIS must robustly quantify noise and vibration effects from Starship- Super Heavy operations. Under NEPA's "hard look" standard, the FEIS must include rigorous modeling of wildlife disturbance, particularly for acoustically sensitive species. Noise impacts to species within the action area in the form of engine noise, vibration, and sonic booms are of particular concern due to the increased frequency of launches of the much larger Starship-Super Heavy vehicle. Absent such quantification, the analysis risks being arbitrary and capricious.	BR-1	See response BR-1.
Friends of Canaveral, Inc.	FAA-2024-1395-0298-0014	the Florida Scrub-Jay, a threatened species and Florida's only endemic bird, is facing threats from habitat fragmentation, and the action area is the home of the second largest remaining sub-population for the species. Recent surveys indicate the species is in decline within the area as it is dependent upon regular prescribed fire which will be even more difficult to	BR-1	See response BR-1.

Issue ID: 11	Issue Name: Biological Resources			
Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
		manage due to the significant increase in proposed launches. The FEIS should address these concerns and provide mitigation alternatives as appropriate.		
Harry Prosser	FAA-2024-1395-0373-0002	Apply NOAA/NMFS 2024 acoustic thresholds and USFWS biological opinions to assess risk for marine mammals, sea turtles, fish, and listed bird	BR-1	See response BR-1.
Harry Prosser	FAA-2024-1395-0373-0003	Model cumulative effects from repeated launches, including nesting and migration seasons	BR-1	See response BR-1.
Indian River Lagoon Roundtable	FAA-2024-1395-0277-0011	Biological Resources A thorough review and evaluation of the cumulative impact on threatened and endangered species of plants and animals, as well as their habitats, is essential. A spaceport-wide review should be conducted and include an initial wildlife inventory followed by continuous monitoring of the population's numbers, nesting habits and habitat.	BR-1	See response BR-1.
Julia Bergeron	FAA-2024-1395-0320-0001	What guardrails will be in place regarding additional worklight use to protect the sea turtles during the nesting season? The National Park service shows approximately 7,474 Loggerhead and Green turtle nests counted in 2025 at the Canaveral National Seashore. Both are threatened species. Reference: https://www.nps.gov/cana/learn/nature/sea-turtle-monitoring.htm As operations grow, there will be more light impact to nesting activity.	BR-1	See response BR-1.
Kailee Davis	PublicMeeting-082625-0008-0001	But our seashore is very packed with turtles during their mating season, and I'm very interested in how it's, like, going to affect them coming here. Are they going to stop coming if there's -- he said 44 sonic booms just launching, not even talking about returns. So, maybe 88 sonic booms. What if it's during nesting season and they don't nest because they're scared?	BR-1	See response BR-1.
Kathleen Ritch	PublicMeeting-090325-0003-0004	What will happen to the fish and the fowl in the area, with the dolphins being scared away and other wildlife suffering?	BR-1	See response BR-1.

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Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
Larry Pollack	FAA-2024-1395-0305-0003	There were no discussions addressing the noise and vibration impact to both terrestrial and marine species, particularly migrating and nesting animals to include birds, marine mammals and sea turtles to name a subset of vulnerable animals. Request that noise and vibration impacts to animal species of concern be addressed in the final EIS document.	BR-1	See response BR-1.
Lyman Welch	FAA-2024-1395-0421-0003	Biological Resources & Habitat Integrity The Banana River National Estuary and adjacent uplands support manatees, endangered sea turtles, world-class sport fish, migratory birds, and the threatened beach mouse. Recent unusual mortality events among manatees, dolphins, pelicans, and shorebirds suggest cumulative pressures from nutrient pollution, noise, vibration, lighting, heat plumes, altered fire regimes, and increased vessel traffic. Seagrass decline driven by nitrogen loading has already caused documented manatee starvation incidents. Barge activity within manatee habitat accounts for about 20% of manatee deaths in Florida. Recommendation: Expand the EIS to evaluate cumulative stressors and their synergistic effects on protected species; integrate habitat integrity monitoring (seagrass health, manatee sightings, vessel strike incidents).	BR-1	See response BR-1.
Mary Sphar	FAA-2024-1395-0411-0001	The EIS does not adequately consider the effects of Starship-Super Heavy on the Indian River Lagoon (IRL) and on listed species, particularly the Florida scrub-jay and listed sea turtles.	BR-1	See response BR-1.
Mary Sphar	FAA-2024-1395-0411-0002	The EIS does not adequately consider the vulnerable state of the Florida scrub-jay metapopulation at KSC which now exists even after many years of efforts to prevent population decline. An assessment was conducted between January 1, 2019 and January 31, 2021 by Robert C. Lacy and David R. Breininger entitled Population Viability Analysis (PVA) as a platform for	BR-1	See response BR-1.

Issue ID: 11	Issue Name: Biological Resources			
Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
		predicting outcomes of management options for the Florida Scrub-Jay in Brevard County. In discussing the viability of the metapopulation under current conditions at KSC/MINWR, this document on page 8 states: "The metapopulation at Kennedy Space Center and Merritt Island National Wildlife Refuge is large enough, and each of its four constituent populations are large enough, so that it is likely to avoid complete extinction for at least 80 years." Also, "the CCSFS populations are projected to decline rapidly, and the metapopulation is projected to go extinct in about 30 to 60 years." The Draft EIS needs to confront this very serious situation and require a proactive approach to prevent such population decline and extinction.		
Mary Sphar	FAA-2024-1395-0411-0003	the 44 proposed KSC launches are likely to adversely affect various species of sea turtles. Adequate monitoring and evaluation of artificial lighting along with a program to reduce disorienting effects on sea turtles, including hatchlings, is essential. In addition, the extent to which noise vibrations from the Super Heavy may compact sand in nesting areas for sea turtles must be studied. The sand above nests must not be compacted to the degree that hatchlings are unable to emerge from the nests. EIS requirements for preventing potential adverse effects on sea turtles must be sufficient to deal with these challenges.	BR-1	See response BR-1.
Merritt Island Wildlife Association	FAA-2024-1395-0304-0001	How will an increase in large scale lighting at the pad not affect sea turtles, nesting shore birds, migratory birds (which mostly fly at night) and other nocturnal species?	BR-1	See response BR-1.
Merritt Island Wildlife Association	FAA-2024-1395-0304-0002	The MINWR is home to more endangered and threatened species than any other refuge in the USA. It hosts over 2 million visitors a year, a figure that was not included in the EIS. We fear that several species that are clinging to their survival such as the southeastern	BR-1	See response BR-1.

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Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
		beach mouse and the Florida scrub jay may disappear. Ironically, the last species of bird in the USA to go extinct once resided on the refuge. Have we not learned the lesson from the loss of the dusky seaside sparrow? The demise was the result of several variables-the alteration of habitat due to development, flooding of nesting areas as a result of diking for mosquito control and possibly the preying by fire ants on chicks. There are many negative outcomes that will result from the proposed launch rates. While the authors of the EIS dismiss each of these as insignificant, they failed to examine if the combined effects will have a synergistic impact. Were population variability analysis conducted that included all of these factors? If not, the EIS should not go forward until the authors can produce this study and the results demonstrate no impact to the many species that will be impacted by the proposed actions.		
Michael Jimenez	FAA-2024-1395-0322-0003	Fish and Wildlife Conservation, the FAA must quantify the Endangered Species Act, Section 7 impacts from the Proposed Action prior to the issuance of the Coastal Consistency Determination. At this time, neither the FAA or SpaceX can assure US Fish and Wildlife Service and the National Marine Fisheries Service that the Proposed Action will not jeopardize the continued existence of Federal-listed species in the MINWR and CANA natural habitats	BR-1	See response BR-1.
National Parks Conservation Association	FAA-2024-1395-0360-0009	The lack of assessment of how these sonic and noise disturbances may adversely impact marine mammals is particularly concerning given the noteworthy and nationally important marine life that the area is home to. Repeated sonic booms and vibrations from Starship operations can transmit into surrounding waters, creating underwater noise that disrupts	BR-1	See response BR-1.

Issue ID: 11	Issue Name: Biological Resources			
Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
		communication, feeding, and migration of protected marine mammals		
National Parks Conservation Association	FAA-2024-1395-0360-0019	(3) robustly analyze underwater noise impacts to marine mammals under the Marine Mammal Protection Act	BR-1	See response BR-1.
National Parks Conservation Association	FAA-2024-1395-0360-0007	Florida Scrub-Jay, a threatened species and Florida's only endemic bird, is facing threats from habitat fragmentation, and the action area is the home of the second largest remaining sub-population for the species. Recent surveys indicate the species is in decline within the area as it is dependent upon regular prescribed fire which will be even more difficult to manage due to the significant increase in proposed launches. The FEIS should address these concerns and provide mitigation alternatives as appropriate.	BR-1	See response BR-1.
Robert Recker	FAA-2024-1395-0132-0001	I led the restoration of the beach at Patrick in 1992. That's the third largest endangered turtle (5 species) nesting site in the world. Any activity that disturbs that area during nesting session should be strictly prohibited. They can't migrate elsewhere, and they are confused by bright show lighting, which interferes with their directional sense.	BR-1	See response BR-1.
Southeastern Fisheries Association	FAA-2024-1395-0440-0012	Shrimpers have picked up debris on both the inshore and offshore sides of the Oculina Habitat Area of Particular Concern (HAPC). If the boats are dragging up rocket pieces on both sides of the Oculina HAPC, then there is a possibility that rocket parts have fallen into the protected area of the Oculina HAPC and could be damaging the fragile corals.	BR-1	See response BR-1.
Surfrider Foundation Space Coast Chapter	FAA-2024-1395-0439-0012	The Draft EIS does not provide a comprehensive evaluation of how the project construction, proposed launch/landing cadence, and related activities will impact critical habitat and key species. The areas surrounding the KSC and LC-39A warrant more detailed	BR-1	See response BR-1.

Issue ID: 11	Issue Name: Biological Resources			
Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
		assessment, protections, and monitoring plans to reduce harms from the proposed action.		
Surfrider Foundation Space Coast Chapter	FAA-2024-1395-0439-0019	Further examination of impacts to sensitive species and habitats as well as thorough monitoring plans in the Draft EIS would provide a more comprehensive foundation for project development and planning.	BR-1	See response BR-1.
Surfrider Foundation Space Coast Chapter	FAA-2024-1395-0439-0016	In close proximity to the beach (~600 feet), LC-39A's lighting for construction and Starship-Super Heavy activities (including night launches) presents a high risk for turtle exposure and disorientation during nesting and hatching.	BR-1	See response BR-1.
Surfrider Foundation Space Coast Chapter	FAA-2024-1395-0439-0017	The Draft EIS acknowledges increased magnitude, frequency, and extent of light exposure from the proposed action but it does not provide in-depth assessment or concrete mitigation measures to reduce lighting impacts on turtles.	BR-1	See response BR-1.
Surfrider Foundation Space Coast Chapter	FAA-2024-1395-0439-0015	The Draft EIS does not assess short-term and long-term consequences for birds resulting from LC-39A construction activities, Starship-Super Heavy Vehicle launch/landing operations, or the accompanying sonic booms and vibration.	BR-1	See response BR-1.
Susan Holcombe	PublicMeeting-082625-0003-0002	And we are entering our migratory fowl, the birds. And the situation with the light pollution and the sound pollution has already diminished the numbers in horrible, horrible ways. And that we are known all over the world for that. We are in one of the largest migratory throughways on the planet and we are decimating it with this stuff unfortunately. The light pollution is horrible and they don't have to have it like that. They can down light. We do it all the time for the turtles, just down light.	BR-1	See response BR-1.
Susan Thomas-Kozenewski	TEMP-0006-0001	Regarding sea turtle nesting season, how would additional launch pad lighting effect light shone on	BR-1	See response BR-1.

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		Playalinda Beach during night launches? What impact on sea turtle nests would a sonic boom have?		
Trey Loughridge	PublicMeeting-082625-0012-0002	we're talking about using old data -- or, excuse me, historic data for the impact on birds in the rookery. We've not done any type of studies on either the manatee or the turtles and what the impact would be. That's my first issue.	BR-1	See response BR-1.
U.S. Fish and Wildlife Service (Keith Ramos)	TEMP-0029-0001	#3. Section 3.8. Biological Resources Comments by: MINWR Comments: The US Fish and Wildlife Service (Service) is concerned about direct impacts to wildlife from testing, launching, and landing activities under the Proposed Action. Prior to each static test fire, launch, and landing activity, the Service strongly recommends on-site surveys (i.e., physical walkdowns of the area of direct impact) to identify and remove from the impact area wildlife that may be affected by these activities (e.g., American alligator, sea turtles, and nesting and roosting birds). This would be similar to wildlife survey and removal activities previously conducted at both KSC and CCSFS.	BR-1	See response BR-1.
U.S. Fish and Wildlife Service (Keith Ramos)	TEMP-0029-0002	#4 Section 3.8 Biological Resources Comment by: MINWR Comments: The document describes limited impacts to nesting sea turtles: "the Proposed Action would not result in any species extirpations, substantial habitat effects, or adverse population level effects" and "the Proposed Action would not likely result in the destruction or adverse modification of federally designated critical habitat. Unlike previous launch systems that launched from the center of the launch pad on a constructed mound, the proposed launches will be at the far eastern edge of the pad footprint without a large, elevated platform. There will likely be additional impacts from the size of the rocket, the increased proximity to the nesting beach, and the lack	BR-1	See response BR-1.

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		of a mounded structure as a launch platform. Specifically, vibrations from launch operations may have impacts on incubating turtle eggs. We recommend disclosing these potential impacts to sea turtles.		
Whitmore	PublicMeeting-082625-0011-0003	the fact that there was 44 federally listed species that are on there on the property, four of them that are is critical habitat. I don't, I don't think that was given enough emphasis, and I think that there needs to be more consideration given to those endangered species that are -- that rely upon that particular area.	BR-1	See response BR-1.
Anonymous	FAA-2024-1395-0281-0074	Was underwater acoustic modeling done? Provide sound pressure levels, frequency spectra, duration, distance from source; compare to known thresholds for marine mammal hearing and behavior changes.	BR-2	See response BR-1 regarding effects analysis to biological resources. Underwater acoustic modeling was not conducted. NEPA (42 U.S.C. § 4336(b)(3)(A), (B)) states that an agency may make use of "any reliable data source" and that an agency is "not required to undertake new scientific or technical research" unless "essential to a reasoned choice among alternatives, and the overall costs and timeframe of obtaining it are not unreasonable." Conducting underwater acoustic modeling is not essential to a reasoned choice among alternatives.
Anonymous	FAA-2024-1395-0436-0037	Was underwater acoustic modeling done? Provide sound pressure levels, frequency spectra, duration, distance from source; compare to known thresholds for marine mammal hearing and behavior changes.	BR-2	See response BR-2.
U.S. Fish and Wildlife Service (Keith Ramos)	TEMP-0029-0003	#5. Page 2-27, Section 2.1.4, LC-39-A InfrastructureComments by: MINWR Comments: Deluge ponds should be designed to prevent turtles and alligators from entering. We recommend installing a perimeter barrier to avoid the need for future wildlife removals.	BR-3	See the USFWS Biological Opinion provided in Appendix B for effects analyses regarding protected species and associated conservation measures and terms and conditions. Protocols for wildlife protection are outlined in the KSC Natural Resources Management Plan.
Audubon Florida	FAA-2024-1395-0251-0003	Our previous comments noted the essential requirement for prescribed fire to maintain the ecosystems within KSC and Merritt Island National Wildlife Refuge. The continued viability of populations	BR-4	Assessing/addressing the merits (and potential inadequacies) of the Prescribed Burn MOU is outside the scope of this EIS. Issues with execution of the MOU should be addressed with the signature parties. KSC will continue to manage prescribed

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		of Florida Scrub-Jay, and other protected scrub species depend on fire management. The Draft EIS states at page 3-55 states "… it is not anticipated that current fire management program activities would be significantly affected. This is because prescribed fire planning and interagency coordination activities would continue at all FMUs and adhere to the MOU for Prescribed Burning (SLD 45, USFWS, and KSC, 2025)". The EIS further suggests at pages 3-167-168 that the recent MOU modifications in 2025 "…removed prescribed burn restrictions related to non-critical payload transport or mating operations and reduced the burn buffer around smoke-sensitive facilities to 0.5-miles (0.8 kilometers); these updates greatly increase the opportunity to burn certain ecologically sensitive units to meet regulatory burn requirements." The draft EIS does not quantify the number of additional burn days allowed by these MOU changes, nor does it include a comparative analysis between those changes and the anticipated additional 44 Starship Superheavy launches and recoveries. Moreover, the 2025 Prescribed Burn MOU referenced in the Draft EIS does not provide mitigation for the loss of Florida Scrub-Jay habitat due to curtailment of suitable burn days for prescribed fire. Rather than offsetting impacts, the MOU simply imposes operational restrictions on prescribed burning, such as prohibiting burns within 12 hours of a launch window without explicit concurrence, and limiting burns to areas outside FCA roadblocks on launch days. These constraints, combined with the increase in launch operations, will further reduce already-limited burn windows essential for maintaining scrub habitat. The MOU provides no additional resources, personnel, or support to compensate for these lost opportunities, and instead simply prioritizes protection of spaceflight		burns in accordance with the MOU (KCA-4205 Rev. C) in a manner that protects federally listed species, designated critical habitat, personnel, and property.

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		infrastructure over ecological management. The MOU in fact precludes additional funding through this explicit provision: "This MOU does not document nor provide for the exchange of funds or manpower between the Parties nor does it make any commitment of funds or resources." The only practical way to make up for any net lost burn days is to apply more resources to ensure that burns can in fact be conducted on the smaller number of suitable burn days that remain available. Without clear commitments to fund and facilitate prescribed fire under these new limitations, the MOU serves to impede, not mitigate, essential habitat management for the Florida Scrub-jay and other scrub dependent species.		
Audubon Florida	FAA-2024-1395-0251-0004	The Draft EIS concentrates discussion of minimization or mitigation compensating measures on LC-39A construction activities. Given the pre-existing nature of the LC 39A site, such construction related actions may indeed result in site specific impacts that are within an acceptable range for the construction itself. However, long-term impacts from operations (noise, vibration, lighting, etc.) are typically dismissed within the Draft EIS in this fashion: "Terrestrial and estuarine wildlife may alter behaviors or suffer injury or death, and their habitats may be degraded or destroyed by noise and visual disturbance, vibrations, sonic booms, strikes and collisions, artificial lighting, vapor plumes, hazardous materials, invasive species, and restricted access associated with construction and Starship-Super Heavy operations. The magnitude, frequency, and extent of exposures to such effects would increase under the Proposed Action compared to the No Action Alternative. However, effects would still be less than significant because the Proposed Action would not result in any	BR-5	Table ES-3 is simply a summary table of effects, and should not be utilized as representative of a comprehensive analysis of potential effects. Please refer to EIS Section 3.8 regarding a comprehensive analyses of potential effects, as well as the USFWS Biological Opinion provided in Appendix B. EIS Section 3.2.4.2.3 discusses reasonably foreseeable effects; please also see response OT-6 regarding reasonably foreseeable effects.

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		species extirpations, substantial habitat effects, or adverse population-level effects." (Table ES-3). The impacts of the number of launches and landings of the Starship Super Heavy vehicle proposed at LC-39A (44 launches and 88 landings), should be considered in context with the proposed 76 launches and 152 landings annually for Starship Super Heavy at SLC-37, plus the increase in SpaceX Falcon 9 launches and landings at SLC 40 – up from 50 per year to 120 launches per year with 34 Falcon 9 first stage landings. The reasonably foreseeable impacts of the increased launch schedule at NASA KSC and CCSFS is unprecedented. These facilities are all located within or in close proximality to Merritt Island National Wildlife Refuge and near the Canaveral National Seashore. While "extirpations, substantial habitat effects, or adverse population-level effects" would not occur through the entire range of a species, it is reasonable to conclude that within a zone of approximately 5.7 miles (the linear coastline distance encompassing all of these facilities listed above) the reasonably foreseeable impacts on wildlife will be extremely negative in the long term. The Draft EIS should be revised to accurately reflect and disclose the totality of these reasonably foreseeable impacts.		
DOI	FAA-2024-1395-0296-0027	Page #:3-174, 3-176 Comment: The DEIS states "Terrestrial and estuarine wildlife may alter behaviors or suffer injury or death, and their habitats may be degraded or destroyed by noise and visual disturbance, vibrations, sonic booms, strikes and collisions, artificial lighting, vapor plumes, hazardous materials, invasive species, and restricted access associated with Starship-Super Heavy operations. The magnitude, frequency, and extent of potential exposures to such stressors	BR-6	The two statements are mutually exclusive. As indicated, while the full extent of effects to localized terrestrial and estuarine species cannot be quantified due to the variables identified, it can be surmised that the localized nature of the effects would not result in significant habitat or population-level effects (based on FAA significance criteria as stated in EIS Section 3.8) as has been demonstrated by ongoing launch activity along the Space Coast for many decades.

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		would increase under the Proposed Action compared to the No Action Alternative, but the exact number and degree of exposures is difficult to determine due to factors such as timing and species mobility." The DEIS also states, "...in the context of the FAA significance threshold, effects on terrestrial and estuarine wildlife and habitats from operations would be less than significant as the Proposed Action would not result in any species extirpations, substantial habitat effects, or adverse population-level effects." The first statement asserts that we cannot understand the impacts to wildlife at this time. The second statement asserts that there will not be significant impacts to wildlife species at a population scale. Without a clear understanding of the "micro- impacts," the statement absolving the project of "macro-impacts" appears unsupported.		
DOI	FAA-2024-1395-0296-0026	Page #: 3-164 Comment: The NPS appreciates SpaceX's willingness to "work with NASA and the USFWS to update the LC-39A Lighting Operations Manual to minimize lighting effects to the greatest extent practicable." NPS recommends that the updated Lighting Operations Manual be added as an appendix to the EIS when it is complete.	BR-7	Updates to the LOM will not be available prior to finalization of the EIS. These updates will be made in conjunction with implementation of other plan updates associated with the USFWS consultation process. Part of the mitigation process is to provide such information and coordinate with the NPS.
National Parks Conservation Association	FAA-2024-1395-0360-0012	Debris remediation and cleanup may also impact environmentally sensitive areas such as wetlands and beach dunes. Heavy equipment and vehicles can cause rutting, vegetation disruption, and damage important habitat for threatened and endangered species. The final EIS should analyze these impacts and provide a robust minimization strategy, along with restoration and mitigation requirements for any areas impacted by launch failure debris, runoff, or contamination.	BR-8	Debris remediation and cleanup would adhere to all existing requirements for use of vehicles and heavy equipment within sensitive areas as is current practice. These activities would be coordinated with the appropriate land management agencies prior to commencement.
Friends of Canaveral, Inc.	FAA-2024-1395-0298-0019	Debris remediation and cleanup may also impact environmentally sensitive areas such as wetlands and beach dunes. Heavy equipment and vehicles can cause	BR-8	See response BR-8.

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		rutting, vegetation disruption, and damage important habitat for threatened and endangered species. Shoreline and dune stability is essential in a hurricane prone area such as this. The final EIS should analyze these impacts and provide a robust minimization strategy, along with restoration and mitigation requirements for any areas impacted by launch failure debris, runoff, erosion, or contamination.		
E A H	FAA-2024-1395-0442-0005	We are respectfully requesting FAA to further research on the effects of noise/vibrations and sea turtle nests on the gulf coast of Mexico as result of Starship Heavy Launches out of Boca Chica, as some claims have been made that the vibrations have caused nests to settle, condense and hinder the hatching and survival of sea turtles.	BR-9	Boca Chica activities are not within the scope of this EIS.

CANA = Canaveral National Seashore; EIS = Environmental Impact Statement; FAA = Federal Aviation Administration; FWS = United States Fish and Wildlife Service; KCA = Kennedy Contract Agreement; KSC = Kennedy Space Center; LC = Launch Complex; LOM = Lighting Operations Manual; MINWR = Merritt Island National Wildlife Refuge; MOU = Memorandum of Understanding; NASA = National Aeronautics and Space Administration; NEPA = National Environmental Policy Act; NMFS = National Marine Fisheries Service; NPS = National Park Service; SpaceX = Space Exploration Technologies Corp.; U.S.C. = United States Code; USFWS = United States Fish and Wildlife Service; USSF = United States Space Force.

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Christopher Sundar	FAA-2024-1395-0136-0001	Thermal and water pollution: LOX and liquid methane exhaust produce hotter plumes and deluge water heating. Retention ponds may not fully mitigate risks of thermal stress, which would trigger algal blooms, or pollutant persistence, given reduced wetland flushing. IRL lost over 90% seagrass beds due to algal blooms over the past year. Algal blooms and seagrass loss result in water quality degradation, public health concerns, and deaths of estuarine dependent organisms and habitat loss.	WR-1	Potential effects to water resources from construction and operations are addressed in EIS Section 3.9.4, and include effects beyond the launch pad. Permitting for retention ponds would require design considerations to account for such aspects to ensure the ponds function to retain both deluge and stormwater. Permitting requirements are addressed under Clean Water Act Section 402 under the NPDES permitting requirements FDEP Environmental Resource permitting requirements, and permits required from the Saint John River Water Management District. Permitting requirements would identify wastewater and

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				stormwater management design and monitoring/sampling requirements regardless of size or location. SpaceX would obtain the proper permits for these ponds to ensure water quality standards are maintained.
Audubon Florida	FAA-2024-1395-0251-0001	Stormwater and Deluge Water containment features are described generally in the text of the Draft EIS. However, it is evident that these facilities are in the early design phase. Due to weather pattern changes, intense rainfall events are occurring more frequently in Florida, with 12+ inch rainfall events in 24 hours or less becoming more and more frequent. Due to the location of the project in an environmentally sensitive area, surrounded by lands in a National Wildlife Refuge and in proximity to a National Seashore, stormwater systems on site should be engineered with considerable extra capability to anticipate these increased rainfall trends. The draft EIS should be revised to reflect resolution of this issue.	WR-1	See response WR-1.
Hyun Jung Cho	FAA-2024-1395-0145-0001	Thermal and water pollution: LOX and liquid methane exhaust produce hotter plumes and deluge water heating. Retention ponds may not fully mitigate risks of thermal stress, which would trigger algal blooms, or pollutant persistence, given reduced wetland flushing. IRL lost over 90% seagrass beds due to algal blooms over the past year. Algal blooms and seagrass loss result in water quality degradation, public health concerns, and deaths of estuarine dependent organisms and habitat loss.	WR-1	See response WR-1.
Surfrider Foundation Space Coast Chapter	FAA-2024-1395-0439-0004	According to the Draft EIS, the “deluge and diverter system and associated operational parameters” remain in a design phase and “specific details are unknown.” The lack of specifics regarding how the system will operate to manage deluge operations presents a concern for full and appropriate assessment of contaminant risk given the significant volume of water	WR-1	See response WR-1.

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		required (an estimated 50 million gallons per year), the frequency of utilization (220 times per year), and the lack of information regarding protocols for monitoring and reporting on deluge water containment and storage. [Footnote 7: Draf EIS, E-23.]		
Frank Harris	TEMP-0007-0002	Your chart on water resources looks only at the launch pad itself! Nothing on possible pollution in adjacent waters!	WR-2	Potential effects to water resources from construction and operations are addressed in EIS Section 3.9.4, and include effects beyond the launch pad. See response WR-1 for additional information.
Lewis Kontnik	FAA-2024-1395-0300-0003	There should be a thorough analysis of the surface and ground water impacts of this action. Apparently, every Starship/Super Heavy launch will use a million gallons of water, for more than 120 million gallons/yr when full launch cadence is reached, of course, that is in addition to the launch water and other water demands for other launches and uses. It is imperative that there are realistic plans on how to manage fresh water for the N. Brevard launch system including water for domestic purposes in the surrounding communities	WR-2	See response WR-2.
Mary Sphar	FAA-2024-1395-0411-0005	the amount of fresh water used for various aspects of the Starship-Super Heavy project and ultimately discharged into the IRL is serious problem that must be addressed in the EIS. Eliminating fresh water discharge into the Lagoon is essential since seagrass can’t grow in water where the salinity is too low.	WR-2	See response WR-2.
Mary Sphar	FAA-2024-1395-0411-0006	The fresh water used by the Super Heavy project needs to be kept on KSC so much of it can be recycled to use again.	WR-2	See response WR-2.
U.S. Fish and Wildlife Service (Keith Ramos)	TEMP-0029-0004	#6. 3-140, 3.8.2.1 Construction and Launch Plume Comment by: MINWR Document Text. “Note that there are no natural wetlands within LC-30A” Comments: This statement lacks context. Although there are no natural wetlands in LC-39A, the launch and static fire plume	WR-3	As stated in Section 3.9.3, there are less than 100 square feet of wetlands within LC-39A, adjacent to the northernmost fence line. It is also noted that wetlands occurring at KSC in the vicinity of LC-39A, as identified by the USFWS National Wetland Inventory, include freshwater emergent wetland and freshwater forested/shrub wetland. Effects associated

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		extends beyond the LC-39A boundary and includes estuary waters and mangrove swamp per Figure 3.9-1.		with the heat plume are addressed in EIS Section 3.8.4, which includes wetland vegetation.
Indian River Lagoon Roundtable	FAA-2024-1395-0277-0006	A Spaceport-wide hydrology study should be conducted to determine the best use of natural wetlands for filtering and retaining freshwater runoff. The proliferation of new impervious surfaces such as rooftops, concrete pads and parking lots will result in billions of gallons of freshwater discharging into the IRL estuary, where it dilutes salinity and inhibits seagrass growth.	WR-4	NEPA (42 U.S.C. § 4336(b)(3)(A), (B)) states that an agency may make use of "any reliable data source" and that an agency is "not required to undertake new scientific or technical research" unless "essential to a reasoned choice among alternatives, and the overall costs and time frame of obtaining it are not unreasonable." Conducting a Spaceport-wide hydrology study is not required to conduct a potential effects analysis, nor is it essential to a reasoned choice among alternatives. See response WR-1 for additional information.
Indian River Lagoon Roundtable	FAA-2024-1395-0277-0007	A spaceport-wide stormwater management plan must be developed. Stormwater should be captured where it falls, stored on-site and used in place of potable water whenever possible.	WR-5	The KSC manages stormwater through a comprehensive system detailed in its Environmental Requirements (KNPR 8500.1), requiring permits and systems for new impervious surfaces and land disturbances to control runoff and maintain water quality. KSC has four regional stormwater management systems and has identified the need for an additional regional stormwater management system in the KSC Master Plan. See response UT-1 regarding potable water.
Phillip Wattwood	FAA-2024-1395-0424-0001	A spaceport-wide stormwater management plan must be developed. Stormwater should be captured where it falls, stored on-site and used in place of potable water whenever possible. SpaceX should fully apply the requirements and practices of Low Impact Development Directive UFC 3-210-10 in the redevelopment of KSC LC(39A) to ensure that no polluting fresh water enters the brackish IRL watershed.	WR-5	See response WR-5.
Indian River Lagoon Roundtable	FAA-2024-1395-0277-0008	SpaceX should fully apply the requirements and practices of Low Impact Development Directive UFC 3-210-10 in the redevelopment of KSC LC(39A) to ensure that no polluting fresh water enters the brackish IRL watershed.	WR-6	See response WR-5.

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Mary Sphar	FAA-2024-1395-0411-0004	Turning to the effects on the health of the Indian River Lagoon, the EIS should include a requirement that any associated construction use Low Impact Development to reduce stormwater runoff into the IRL.	WR-6	See response WR-5.
Florida State Clearinghouse (Lindsay Weaver)	TEMP-0031-0001	The Florida Department of Environmental Protection's Central District noted that the proposed project will require Industrial Waste Permitting and may require Domestic Wastewater Collection/Transmission System Permitting, Drinking Water Main Extension Permitting, Dewatering permitting, and ERP/Stormwater permitting.	WR-7	Permitting requirements are identified in EIS Section 1.5.2, Section 3.9.4, and Section 3.17 and will be required prior to construction and/or operation.
National Parks Conservation Association	FAA-2024-1395-0360-0015	The DEIS lacks detail on the engineering design of the deluge water ponds. The DEIS has not provided design calculations to justify the size and location of deluge pond areas and their retention and/or detention capacity relative to expected sea level rise scenarios, storm surge, and rainfall events which could impact storage capacity both now and under future foreseeable conditions based upon sea level rise modeling and other relevant data. Without accounting for reasonably foreseeable climate conditions, the analysis fails NEPA's "hard look" requirement and risks underestimating overflow, discharge, or pollution potential.	WR-8	As noted in EIS Section 2.1.4, engineering design of the deluge ponds has not been completed; the ponds would be designed per permitting requirements from FDEP to account for retention and/or detention capacity relative to expected operational requirements. Were storm surge to wash across the launch pad, there is no sufficient capacity to prevent mixing or wash of deluge water. It should be noted that 90 percent of deluge water is evaporated during use; thus, the significant majority of deluge water within the ponds is "fresh" water while it awaits use. Provision of sea level rise in design considerations is typically addressed under Federal Flood Risk Management Standards; however, this applies only to federally funded projects. Because the Proposed Action design and construction is privately funded, this does not apply and SpaceX assumes any associated risk.
Surfrider Foundation Space Coast Chapter	FAA-2024-1395-0439-0003	However, the Draft EIS appears to utilize theoretical estimates based on normal functioning of all systems, not more specific data based on Boca Chica operations adapted for regional specificity in Florida and contemplation of how conditions may change in the event of system failures or abnormalities.	WR-9	Boca Chica does not provide for a comparative analysis of infrastructure operations in this regard given different requirements, operational parameters, and infrastructure. As noted in EIS Section 2.1.4, engineering design of the deluge ponds has not been completed; the ponds would be designed per permitting requirements from FDEP to account for retention and/or detention capacity relative to expected operational requirements. Necessary permits would be obtained prior to construction.

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Anonymous N. Carpenter Rd,	FAA-2024-1395-0372-0001	While the Draft EIS addresses NOx as a criteria pollutant for ambient air standards, it overlooks atmospheric nitrogen deposition as a primary driver of water quality degradation in the surrounding, nutrient-impaired, Indian River Lagoon. • The Draft EIS should explicitly address how increased NOx emissions are likely to exacerbate atmospheric TN deposition and associated nutrient impairment of surrounding surface waters.	WR-10	The primary driver of water quality degradation in the IRL is nutrient pollution, specifically excess nitrogen and phosphorus, which fuels harmful algal blooms, depletes oxygen, and harms aquatic ecosystems. These nutrients come from human sources like leaking sewage systems, agricultural runoff, and fertilizers, as well as natural "legacy loads" from decomposing organic matter in the lagoon's muck. The FDEP, Brevard County, and other entities (e.g., IRL National Estuary Program) cites the main pollutant sources of the IRL as stormwater from urban and suburban areas, which sends lawn fertilizers, eroded sediments, pesticides, roadway oils and greases, pet wastes, and trash into storm drains. Storm drains and drainage systems in older developments send polluted rainwater and irrigation water into the canals and tributaries that drain directly to the lagoon with no treatment (https://www.lagoonloyal.com/indian-river-lagoon). The Saint John River Water Management District cites atmospheric deposition of nitrogen as the fourth largest source of total nitrogen, contributing about half of that from Baseflow/septic systems (https://www.sjrwmd.com/waterways/renew-lagoon/#faq-10). NO_x emissions associated with the Proposed Action, while potentially exceeding the insignificance threshold indicator of 250 tons per year, represent only about 4 percent of Brevard County's total emissions and are unlikely to appreciably affect total nitrogen concentrations in local surface waters. To document the surface water quality of waters surrounding KSC several different monitoring programs are used. NASA, SJRWMD, and Brevard County have previously maintained water quality monitoring stations around and within KSC boundaries. The SJRWMD lagoon-wide water quality monitoring network currently maintains two fixed stations within KSC boundaries, one station in Banana River at the southern boundary and one in Mosquito Lagoon south of

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				Haulover Canal, for incorporation into a region-wide data management system. The surface water quality data from this program is used for long-term trend analysis and offers a supportive role in land use planning for the entire IRL. Real-time water quality monitoring stations have been established by the SJRWMD in the IRL around KSC (http://webapub.sjrwmd.com/agws10/hdswq/). The Ocean Research and Conservation Association also maintains real-time water quality stations (http://api.kilroydata.org/public/).
Lewis Kontnik	FAA-2024-1395-0300-0002	The IRL and Banana River are Impaired Waterways with Total Nitrogen loadings above EPA standards which are already harming seagrass and other Lagoon life forms. There will be substantial releases of Nitrogen Oxides from the intense burn of the rocket engines, with some of this deposited in the Lagoon waters. There should be an in-depth analysis and suitable controls to prevent exacerbation of the IRL problems that Brevard taxpayers are spending nearly $1/2 Billion to correct.	WR-10	See response WR-10.
Lyman Welch	FAA-2024-1395-0421-0001	Air Quality & Atmospheric Nitrogen Deposition The Draft EIS treats NOx as an ambient air pollutant but does not address atmospheric nitrogen (TN) deposition, a primary driver of water quality impairment in the Indian River Lagoon (IRL) and Banana River (both “impaired” under the Clean Water Act). NOx from Starship launches would increase TN deposition, accelerating seagrass loss and threatening manatee foraging habitat. Recommendation: Quantify the incremental TN deposition from the projected 120 launches per yr, incorporate this analysis into the EIS, and develop mitigation (e.g., emission reduction technologies, offsets) that aligns with the federally mandated 40% TN reduction target for the Banana River.	WR-10	See response WR-10.

Issue ID: 12	Issue Name: Water Resources			
Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
Surfrider Foundation Space Coast Chapter	FAA-2024-1395-0439-0007	Given the scope of the proposed action and foreseeable impacts to the IRL watershed, the Draft EIS should be updated with all relevant siting and operation details for incorporation into a more comprehensive water quality impact assessment, risk mitigation options, and monitoring plans.	WR-11	As noted in EIS Section 1.8, the site plan presented in Figure 2.1-11 is notional; a detailed, validated site plan is unavailable. A validated site plan is relevant to ensure that facilities can fit within the LC-39A footprint given necessary setbacks, whether facilities such as deluge and stormwater ponds are of sufficient size, and to calculate the acreage of newly developed area or increased impervious area within the site. While a detailed understanding of the developed area would allow for a more concise understanding of potential habitat loss, the exact siting of facilities is still in process. As a result, the FAA has used the notional site plan and associated GIS data for identification of notional development footprints to analyze potential direct and indirect effects from ground disturbance and facility presence. The FAA further assumes that all development will occur within the fence line of LC-39A. If a validated site plan is confirmed after publication of the Final EIS, the scope would be reviewed to determine the need for any additional NEPA analysis. Regardless, all facilities, to include deluge ponds and stormwater management systems, would be designed and constructed according to FDEP permitting requirements. KSC manages stormwater through a comprehensive system detailed in its Environmental Requirements (KNPR 8500.1), requiring permits and systems for new impervious surfaces and land disturbances to control runoff and maintain water quality. KSC has four regional stormwater management systems and has identified the need for an additional regional stormwater management system in the KSC Master Plan.
Surfrider Foundation Space Coast Chapter	FAA-2024-1395-0439-0005	The Draft EIS' stormwater management system review also presents an area for more detailed assessment of the proposed action and its related consequences. The Draft EIS acknowledges the increase of impervious surfaces as a result of the proposed action and its likelihood to increase stormwater runoff and reduce	WR-11	See response WR-11.

Issue ID: 12	Issue Name: Water Resources			
Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
		water infiltration into the surficial aquifer. [Footnote 8: Draf EIS, 3-195.] However, key components for a comprehensive analysis are still incomplete or unavailable for inclusion in the Draft EIS. Notably, the "LC-39A Siting Plan" and "Operational Aspects for LC-39A Facilities" are still in development, which prevents the inclusion of details and data that would contribute to a better assessment of water quality impacts, including deluge and stormwater pond size, impervious surface totals, and operational data related to launch/landing logistics.		
Surfrider Foundation Space Coast Chapter	FAA-2024-1395-0439-0006	The Draft EIS review and subsequent planning would benefit from more data and specific analysis of stormwater containment and treatment as well as system capacity to handle storm and increased rainfall events in the region.	WR-11	See response WR-11.
Southeastern Fisheries Association	FAA-2024-1395-0440-0001	The physical environment is adversely impacted by the increased volumes of fresh water used to dampen the noise and impact of the extremely powerful rocket engines by adding excessive amounts of fresh water into the pristine local estuaries. Large amounts of fresh water, and especially large amounts of polluted fresh water, is like poison to the species and fauna that these estuaries support. There is no proposed plan to mitigate this damaging issue.	WR-12	As noted in the EIS Section 2.1.4, no deluge water would enter the Banana River or adjacent waterbodies or wetlands. All surface water/water quality permitting would be obtained prior to construction and operations regardless of the final design. To ensure water quality standards are met under the Clean Water Action Section 402, construction would require an NPDES permit and stormwater discharge during operations would require an NPDES permit. See response WR-1 for more information.
Anonymous	FAA-2024-1395-0436-0026	Treatment capacity, capture efficiency, and bypass/emergency overflow procedures for water with contaminants are not described in full or tested to failure.	WR-12	See response WR-12.
Anonymous	FAA-2024-1395-0281-0023	Treatment capacity, capture efficiency, and bypass/emergency overflow procedures for water with contaminants are not described in full or tested to failure.	WR-13	Stormwater and deluge ponds would be designed based on necessary capacity and would include all required design parameters to meet permitting requirements. They are not tested because they have not been designed/constructed yet.

Issue ID: 12	Issue Name: Water Resources			
Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
Anonymous	FAA-2024-1395-0281-0026	For deluge and stormwater systems: provide design specifications including storage capacities, overflow risk, filtration/chemical treatment performance under variable contaminant loads, plus results from full-scale stress tests or tracer studies.	WR-13	See response WR-13.
Anonymous	FAA-2024-1395-0281-0027	How frequently were the deluge system and water capture systems tested under maximum anticipated use? What maintenance or failure histories exist?	WR-13	See response WR-13.
Anonymous	FAA-2024-1395-0436-0029	For deluge and stormwater systems: provide design specifications including storage capacities, overflow risk, filtration/chemical treatment performance under variable contaminant loads, plus results from full-scale stress tests or tracer studies	WR-13	See response WR-13.
Anonymous	FAA-2024-1395-0436-0030	How frequently were the deluge system and water capture systems tested under maximum anticipated use? What maintenance or failure histories exist?	WR-13	See response WR-13.
Anonymous N. Carpenter Rd,	FAA-2024-1395-0372-0005	The plans for standard stormwater design do not account for ongoing nutrient impairments in receiving waters, which are subject to TMDLs under federal and state laws. Increasing frequency and intensity of extreme rainfall events as well as rising groundwater levels can overwhelm stormwater infrastructure, causing pollutant pulses and salinity shocks to the estuary.	WR-13	See response WR-13.
Surfrider Foundation Space Coast Chapter	FAA-2024-1395-0439-0001	The Draft EIS does not fully address reasonably foreseeable impacts to water quality in the region surrounding Kennedy Space Center (“KSC”). In particular, the proposed action’s scale and the proximity to Indian River Lagoon (“IRL”), a 156-mile estuary encompassing the Indian River, Banana River, and Mosquito Lagoon, present significant concerns for water pollution, run off, and other threats to the watershed’s ecological health.	WR-14	See response WR-1 regarding permitting and capacity/design. See response WR-10 regarding effects to IRL.

Notes: EIS = Environmental Impact Statement; FAA = Federal Aviation Administration; FDEP = Florida Department of Environmental Protection; GIS = Geographic Information System; IRL = Indian River Lagoon; KNPR = Kennedy NASA Procedural Requirements; KSC = Kennedy Space Center; LC = Launch Complex; NASA = National Aeronautics and Space Administration;

Issue ID: 12	Issue Name: Water Resources			
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NEPA = National Environmental Policy Act; NO_x = nitrogen oxides; NPDES = National Pollutant Discharge Elimination System; SJRWMD = St. Johns River Water Management District; SpaceX = Space Exploration Technologies Corp.; U.S.C. = United States Code; USFWS = United States Fish and Wildlife Service.

Issue ID: 13	Issue Name: Coastal Resources			
Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
Hyun Jung Cho	FAA-2024-1395-0145-0002	Coastal upland habitats: Cape Canaveral barrier island ecosystems already show habitat conversion, dune retreat (40-50 m) since 2010), and wetland loss (particularly surrounding LC39A). SSH launches will compound these shifts through noise, traffic, weights, agitation, heat, and debris risks.	CO-1	Potential effects to habitats and wetlands associated with the Proposed Action are discussed in EIS Section 3.8 and Section 3.9, respectively. For the Proposed Action, a Coastal Consistency Determination was submitted to the FDEP as part of this EIS in accordance with 15 CFR Part 930, Subpart C (see EIS Appendix B.5). The FDEP informed the FAA that the Proposed Action is consistent with Florida's Coastal Zone Management Program (see EIS Appendix B.5).
Surfrider Foundation Space Coast Chapter	FAA-2024-1395-0439-0020	The Draft EIS also enumerates a range of impacts for coastal resources in the Atlantic Ocean but does not provide comprehensive evaluation of the risks or the plan for monitoring and mitigating observed harms. [Footnote 33: Draf EIS, 3-196.] In particular, operations related to Starship- Super Heavy Vehicle landings in the ocean present a concern. The Draft EIS contemplates expending vehicles in the ocean, which could occur during explosive events at the surface of the water, soft water landings that result in sinking or explosion, and vehicle break-up while in flight resulting in debris landing in the ocean. [Footnote 34: Draf EIS, ES-15.] More detailed evaluation of the expected frequency and detrimental effects of vehicle debris and contaminants in the ocean and on the beach is warranted due to the launch cadence proposed at KSC.	CO-2	See response CO-1 regarding coastal resources. Effects from debris and contaminant effects in the ocean are provided in EIS Section 3.13.4.

Notes: CFR = Code of Federal Regulations; EIS = Environmental Impact Statement; FAA = Federal Aviation Administration; FDEP = Florida Department of Environmental Protection.

Issue ID: 14	Issue Name: Air Quality			
Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
Fred Goldstein	FAA-2024-1395-0083-0004	Longer exposures to elevated concentrations of NO2 may contribute to the development of asthma and potentially increase susceptibility to respiratory infections. People with asthma, as well as children and the elderly are generally at greater risk for the health effects of NO2. https://www.epa.gov/no2-pollution/basic-information-about[1]no2#:~:text=NO2%20along%20with%20other,Environmental%20effects Is there a risk of a plume traveling over a school or other location? And if so, how might this be addressed?	AQ-1	There is no identified risk of a heat or vapor plume traveling over a school or other sensitive location where children or the elderly congregate (such as a school or nursing home). EIS Section 3.8.2 describes the extent of the plume. The plumes generated from Starship-Super Heavy static fire tests and launches would travel away from the launch pad, with an estimated vapor/heat plume extent of up to approximately 0.2 miles (0.3 kilometers). For Starship and Super Heavy landings, the estimated vapor and heat plume extent is approximately 96 feet (29 meters) from the landing pad. The vapor/heat plumes and increased temperatures in this area would be temporary and would only occur during engine ignition and dissipate within minutes. A flame diverter or similar infrastructure (e.g., a water-cooled diverter) would be constructed to reduce potential effects due to the plume (a diverter can direct the plume upward, away from the ground).
Anonymous	FAA-2024-1395-0106-0001	The EIS should include quantitative modeling of ground-level concentrations of exhaust constituents, including nitrogen oxides (NOx), carbon monoxide, particulate matter, and any hazardous air pollutants generated during nominal and off-nominal launches.	AQ-2	EIS Section 3.11.4 provides baseline air quality data for the study area (includes criteria pollutants such as particulates, NO_x, etc.), analyzes the potential air emissions associated the Proposed Action utilizing standard air emissions analysis protocols identified in the ACAM model described in EIS Section 3.11.4, and discusses potential mitigations for air emissions. Section 3.11.4, which does not specifically address modeling/determination of “ground-level” concentrations, provides detailed descriptions of how rocket emission estimates were derived, emission sources considered, and effects to the atmosphere. USEPA accepts 3,000 feet (914 meters) above ground level as the nominal height of the atmospheric mixing layer for assessing the contribution of aircraft emissions to ground-level ambient air quality and the analysis adopted this approach for the estimation of the Proposed Action emissions for NAAQS criteria pollutants (including particulates and NO_x); emissions beyond 3,000 feet (i.e., upper atmosphere) are

Issue ID: 14	Issue Name: Air Quality			
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				not specifically addressed. EIS Section 3.12 addresses greenhouse gases associated with the Proposed Action. Appendix C provides detailed information regarding emissions factors and modeling results. See response MT-1 for more information regarding mitigations.
Anonymous	FAA-2024-1395-0281-0028	What is the baseline data for NO?, particulates, ozone, and other criteria pollutants in the vicinity, and over what time period was that data collected? Are there seasonal or diurnal peaks that could interact with launch emissions to worsen air quality?	AQ-2	See response AQ-2.
Anonymous	FAA-2024-1395-0436-0031	What is the baseline data for NO?, particulates, ozone, and other criteria pollutants in the vicinity, and over what time period was that data collected? Are there seasonal or diurnal peaks that could interact with launch emissions to worsen air quality?	AQ-2	See response AQ-2.
DOI	FAA-2024-1395-0296-0038	(2) Include additional information on emissions associated with the proposed action, including (1) detailed descriptions of how rocket emission estimates were derived, and (2) additional information on emission sources that were excluded from the emission calculations.	AQ-2	See response AQ-2.
DOI	FAA-2024-1395-0296-0041	The NPS recommends that FAA provide additional information on emissions associated with the proposed action, including (1) detailed descriptions of how rocket emission estimates were derived and (2) additional information on emission sources that were excluded from the emission calculations.	AQ-2	See response AQ-2.
DOI	FAA-2024-1395-0296-0037	(1) Summarize recent research that considers the pollutant emissions and air quality implications (both in the troposphere and stratosphere) associated with increased rocket launches. This would add context to the air quality consequences addressed in the DEIS.	AQ-2	See response AQ-2.
DOI	FAA-2024-1395-0296-0040	NPS recommends that the DEIS air quality analysis address the upper atmosphere impacts associated with	AQ-2	See response AQ-2.

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Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
		rocket emissions. However, our primary focus is on combustion-related NOx emissions released in the lower atmosphere, which have more potential for direct impacts in CANA.		
Fred Goldstein	FAA-2024-1395-0306-0018	Page 3, 204, or 316 of the complete documents shows estimated annual NOx emissions for this EIS. The increase to Brevard County's total of 4.22 and the clearance of the insignificance indicator are concerning. Concern that this was calculated using current standards of 3,000 ft, which may not be appropriate for these launches. FAA should require further study to determine if 3,000 ft is an appropriate standard for these launches.	AQ-2	See response AQ-2.
James O'Brien	FAA-2024-1395-0419-0010	Air quality modeling. Perform localized NO2 dispersion modeling for 1 hr and annual standards around LC 39A and recurrent landing zones before issuing any license; do not rely on county scale inventories to dismiss a project scale exceedance risk the EIS flags as "potentially significant."	AQ-2	See response AQ-2.
Larry Pollack	FAA-2024-1395-0305-0001	No discussion addressed the formation and atmospheric deposition of respirable particulate mater created by the combustion of a hydrocarbon-based fuel, specifically liquid methane (CH4) used by the Starship-Super Heavy launch vehicles during launch & landing. The small particulate size, especially in the 2.5 micron and lower size ranges, should be addressed to include total quantities (mass) produced during nominal launch operations.	AQ-2	See response AQ-2.
Larry Pollack	FAA-2024-1395-0305-0002	Modeling of the atmospheric dispersion should also be addressed to assess the plume of material downrange, or more importantly when there are 'on-shore' winds (east to west) at various altitudes resulting in particulate mater being deposited onto populated land areas west of the launch site (e.g., inland). Request that particulate matter formation and mitigation be	AQ-2	See response AQ-2.

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		addressed in the final Environmental Impact Statement (EIS) document.		
Robert W. Chew	TEMP-0018-0002	My second major concern is the impact to the atmosphere caused by increased launches of the SpaceX Super-Heavy rockets. Has there been adequate studies of the impact to the Lipper atmosphere by emitting gases like carbon dioxide; water vapor and soot (black carbon), and particles such as chlorine compounds and aluminum oxides?	AQ-2	See response AQ-2.
Anonymous	FAA-2024-1395-0281-0025	Provide full air dispersion modeling for both normal operations and failure modes. For failure modes: specify mass/volume of pollutants released, release duration, meteorological worst-case conditions, and how dispersion would affect sensitive areas (wetlands, coastal aquifers, wildlife refuge).	AQ-3	See response AQ-2 regarding air emissions modeling. Air emissions analysis of anomalies is not possible due to the many variables involved; air emissions analyses focuses on nominal events which have predictable input parameters.
Anonymous	FAA-2024-1395-0436-0028	Provide full air dispersion modeling for both normal operations and failure modes. For failure modes: specify mass/volume of pollutants released, release duration, meteorological worst-case conditions, and how dispersion would affect sensitive areas (wetlands, coastal aquifers, wildlife refuge).	AQ-3	See response AQ-3.
DOI	FAA-2024-1395-0296-0042	With respect to the rocket emission estimates, the DEIS states that “equations and emission factors can be found in Appendix C.2, Air Quality Assessment.” However, Appendix C.2 does not provide a narrative description of the emission factors, how they were derived, or the data source. The Appendix C.2 emission calculation tables include a single note that states: “From Sierra 2024 Report.” It is not clear what this references, but it suggests the analysis may be based on a 2024 FAA Environmental Assessment for Sierra Space’s proposal to conduct Dream Chaser reentry operations. The NPS recommends the DEIS discusses the launch and landing activity assumptions and emission factors, how the emission factors were	AQ-5	The 2024 Sierra report is an air quality assessment that contains proprietary information related to the Starship-Super Heavy vehicle. The emissions analysis in the DEIS was derived from that report. It is unrelated to Sierra Space’s Dream Chaser program. The Final EIS has updated this sentence to reflect that portions of the Sierra report may be part of the administrative record but is not releasable to the public due to its proprietary nature.

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		derived, and why they are applicable to the Starship-Super-Heavy.		
DOI	FAA-2024-1395-0296-0043	While final facility design has not been identified, a description of the potential emission sources involved (e.g., natural gas-fired compressors) and the expected scope of emissions would be useful. For example, is it anticipated that this will be a major stationary source that is subject to the prevention of significant deterioration (PSD) requirements, or will it just require a minor source permit? This information is necessary for context in any air quality review, even if discussed in a qualitative manner.	AQ-6	As noted in EIS Section 3.11.3, KSC operates under a Title V Operating Permit, as it is a major source of emissions (potential to emit greater than 100 tons per year of a regulated pollutant). The Title V permit requirements include annual inventorying of substantial stationary sources of air emissions, monitoring, and recordkeeping. The primary stationary sources of air emissions regulated by the Title V permit include boilers and generators. As noted in EIS Section 3.11.4, the liquefaction plant, including the methane liquefier and ASU, is currently under design. Emissions from the plant would be dependent on its final design and operational characteristics. The facility will undergo permitting through the FDEP, ensuring compliance with all applicable Federal and state air quality regulations. This permitting process would include a detailed emissions evaluation to determine any applicable permit requirements and ensure operations do not contribute to an exceedance of the NAAQS. The FDEP is the regulatory agency that oversees air quality. FDEP, along with local government agencies, owns and operates Florida's air quality monitoring network. Data for CO, NO_2, O_3, $PM_{2.5}$, PM_{10}, and SO_2 can be found on Florida's Air Quality System webpage.
EPA Region 4	TEMP-0030-0001	Hazardous Air Pollutants Pursuant to 42 U.S.C. § 4332(C)(i), NEPA requires "a detailed statement by the responsible official on reasonably foreseeable environmental effects of the proposed agency action." The draft EIS mentions the project's use of "products containing hazardous materials, including paints, solvents, oils, lubricants, acids, batteries, fuels, surface coating, and cleaning compounds," and discusses usage of diesel-powered construction equipment, all potential sources of hazardous air pollutants (HAPs). The final EIS should evaluate the amount of HAPs emitted by the	AQ-7	HAPs are acknowledged in the affected environment section but not carried forward into (or analyzed in detail within) the environmental consequences section because, unlike criteria pollutants (NOx, SO_2, PM, etc.) that have NAAQS, HAPs do not have regional standards. Instead, they are regulated through USEPA's National Emission Standards for Hazardous Air Pollutants, which set requirements for specific industrial facilities (e.g., refineries, chemical plants, incinerators). For Federal actions (like launches and/or construction), HAP emissions (fuels, solvents, diesel exhaust, etc.) are generally considered small, temporary,

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		construction and operation of the project and discuss their environmental impact (42 U.S.C. § 4332(C)(i)).		and already subject to existing state and Federal requirements. Because there are no project-level thresholds for HAP emissions, and project-related HAP concentrations are unlikely to approach levels that could lead to adverse health effects, quantification is not typically included.
Fred Goldstein	FAA-2024-1395-0306-0019	Additionally, NO2 and other NOx interact with water, oxygen and other chemicals in the atmosphere to form acid rain. Acid rain harms sensitive ecosystems. There are limited studies on the amount or potential impact of this. FAA should require this be studied as it may impact the plants and animals in the Indian River Lagoon.	AQ-8	Acid rain forms when SO_2 and NO_x are released into the atmosphere, primarily from burning fossil fuels in power plants and vehicles. The amount of SOx emissions is minimal (see EIS Section 3.11.4). While acid rain occurs in Florida, the degree of acidity of the state's rainfall is much less than that of the Northeast United States, where most of the ecological damage associated with acid rain has been found. FDEP's Division of Air Resource Management Office of Air Monitoring performs quality assurance activities on monitoring systems required by the Federal Acid Rain Program (https://floridadep.gov/air/air/content/air-quality-101#acid-rain).

Notes: ACAM = Air Conformity Applicability Model; ASU = air separation unit; CO = carbon monoxide; DEIS = Draft Environmental Impact Statement; EIS = Environmental Impact Statement; FDEP = Florida Department of Environmental Protection; HAP = hazardous air pollutant; KSC = Kennedy Space Center; NAAQS = National Ambient Air Quality Standards; NO_2 = nitrogen dioxide; NOx = nitrogen oxides; O_3 = ozone; PM = particulate matter; PM_{10} and $PM_{2.5}$ = particulate matter equal to or less than 10 or 2.5 microns, respectively; SO_2 = sulfur dioxide; SOx = sulfur oxides; USEPA = United States Environmental Protection Agency.

Issue ID: 15	Issue Name: Climate			
Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
South Atlantic Fishery Management Council	FAA-2024-1395-0297-0005	Increased greenhouse gases (GHGs), like CO2, will exacerbate climate change, which will cause a predicted increase in annual mean temperature and harsher weather in a high flood risk area (sections 3.12.3 and 3.9.4.2.3). The increase in temperature and storms (section 3.12) will significantly damage EFH, for example, causing loss of submerged aquatic vegetation in the rivers and coral bleaching of offshore reefs. Additionally, water temperature increases will cause changes in species diversity, increase coral bleaching,	CL-1	On January 28, 2025, President Trump issued E.O. 14154, *Unleashing American Energy*, which directs Federal agencies to no longer consider the social cost of GHGs. Accordingly, the social cost of GHGs was not considered in this EIS. Nonetheless, EIS Section 3.12.4.2.3 addresses potential effects from climate change (note that LC-39A is not a 230-acre development). GHGs are nonhazardous to health at normal ambient concentrations and can only potentially cause warming of the climatic system at a cumulative global scale. Therefore, the action-related GHGs have no significant

Issue ID: 15	Issue Name: Climate			
Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
		habitat use, range, and behavior of both fish and prey, making it more difficult for fishermen to make a living. The report identifies that the total CO2 emissions for launch operations will be 2.81% of Brevard County's total emissions. Comparing the emissions of the launches to the surrounding counties doesn't make it any less impactful. The analysis doesn't include the emissions of all other launch sites, and it doesn't consider any bioaccumulation of GHGs in the surrounding atmosphere or water table and cannot be dismissed as non-impactful. This continued annual release of CO2 will exacerbate climate change impacts and economically impact nearby fishing communities by making it harder for fishermen to catch as many fish as they normally would. None of this is mentioned in the report. While the Council appreciates that the use of reusable launch capabilities may slightly decrease the cumulative impacts of the launches, that slight decrease will not be enough to offset the tremendous impact of a 230-acre development and 244 launches annually. The net goal for this project should be to decrease CO2 emissions to prevent catastrophic changes, not increase emissions.		effect to local air quality. However, from a global perspective, individual actions with GHG emissions such as this each make a relatively small addition to global atmospheric GHG concentrations that collectively may have a large effect on climate change. Project GHG emissions, in combination with GHG emissions from reasonably foreseeable actions identified would result in effects to climate change. As identified in Section 3.12.4, Environmental Consequences, climate change could affect implementation of the Proposed Action at KSC and the adaptation strategies needed to respond to future conditions. Operations at KSC have adapted to their changing climate. However, exacerbation of these conditions in the future could impede proposed activities during extreme events. The FAA, NASA, and the DAF have developed measures to adapt to future climatic events and therefore to make facilities more resilient to future climate effects. KSC conducted a Climate Adaptation Study in 2019 to evaluate vulnerabilities and inform the KSC Resilience Strategy. Elements of this plan are incorporated into the KSC Master Plan to ensure KSC facilities and critical infrastructure are protected and resilient against effects associated with climate and weather. Implementation of these measures would mitigate the effects of climate change to the Proposed Action, as well as other reasonably foreseeable actions.
Audubon Florida	FAA-2024-1395-0251-0002	The draft EIS at page 3-186 states that: "Flood risk at KSC stems primarily from large storms and future sea level rise". The Draft EIS also states at Page 3-207 "hurricanes have intensified more rapidly since the 1980s and caused heavier rainfall and higher storm surges (Marvel et al., 2023). In addition, sea levels along the eastern Florida coast have risen about 4 to 6 inches from 1993 to 2020, including 6 inches (152 millimeters) at the Trident Pier in Port Canaveral (Sweet et al., 2022)." At Page 3-191 it is stated that "It is assumed	CL-1	See response CL-1.

Issue ID: 15	Issue Name: Climate			
Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
		that proper planning and design would ensure that any new infrastructure would be designed for the appropriate level of flood risk…". Given the Draft EIS relies on this assumption, it would be appropriate for approval to include enforceable conditions ensuring that new infrastructure is designed to accommodate reasonably anticipated sea level rise.		

Notes: DAF = Department of the Air Force; E.O. = Executive Order; EIS = Environmental Impact Statement; FAA = Federal Aviation Administration; GHG = greenhouse gas; KSC = Kennedy Space Center; LC = Launch Complex; NASA = National Aeronautics and Space Administration.

Issue ID: 16	Issue Name: Hazardous Materials and Hazardous Waste			
Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
Fred Goldstein	FAA-2024-1395-0083-0009	Clean Harbors, Bartow. Page 3-217 "SpaceX uses Clean Harbors in Bartow, Florida, as the TSDF for waste produced at LC-39A and of a variety of other TSDF disposal sites based on availability." Given some of the issues at other Clean Harbors sites, including fines and subsequent remediation efforts. They should be monitored or establish required reporting to ensure compliance with EPA and other standards.	HW-1	Enforcement of USEPA requirements is under the purview of USEPA. The FAA has no legal authority or responsibility in this regard.
Audubon Florida	FAA-2024-1395-0251-0007	The Draft EIS states at Page 3-225: Launch failure resulting from rocket malfunction could result in debris and small amounts of hazardous materials and/or wastes being distributed in the immediate area of LC-39A or downrange. SpaceX would respond to all accidental releases of polluting substances quickly and implement appropriate cleanup measures in accordance with applicable laws (See Appendix D.13, Hazardous Materials, Solid Waste, and Pollution Prevention) to minimize effects to the environment. Detail is lacking with regard to the methodologies to be	HW-2	Debris cleanup activities within MINWR and CANA, to include wetlands and habitat areas, would be coordinated between NASA, SpaceX, and the agency with jurisdiction(e.g., USFWS) to ensure requirements are identified and implemented.

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Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
		utilized in the event of a launch failure that casts debris over the wetland and terrestrial areas to the north, south and west of LC-39A. While there is an extensive discussion of debris recovery downrange over the open ocean, the logistics of reaching a debris field inland from the beach to conduct "appropriate cleanup measures" are not well described. The operation of wheeled or tracked vehicles within wetland areas and other valuable habitats types could result in disturbance of habitat as great or greater than the impact of rocket parts from a launch failure. The Draft EIS should be revised to include references to cleanup methodologies that minimize ground disturbance. Such measures should include consideration of heavy lift helicopters to avoid further habitat disturbance.		
Richard D. Horner	PublicMeeting-082825-0016-0002	In your environmental analysis, have you considered the effect of hypergolic propellants on the Starship vehicle? Specifically, monomethylhydrazine, nitrogen tetroxide, two very highly toxic substances that are mandatory for maneuvering in space.	HW-3	Starship does not use hypergolic propellant. As discussed in Section 2.1.2 of the DEIS, it utilizes liquid methane and liquid oxygen as propellant.
Anonymous N. Carpenter Rd	FAA-2024-1395-0372-0006	The plan for SpaceX to maintain an internal emergency response team for hazardous material releases lacks clarity on federal oversight, response standards, or transparency for public safety.	HW-4	As noted in EIS Section 3.13, which discusses prevention, response to, and mitigation of hazardous materials incidents, the KSC facility-wide SPCC Plan (KSC-PLN-1919) and the KSC site-specific plan (KSC-PLN-1920) outline the criteria established by KSC to prevent, respond to, control, and report spills of oil. Various types and quantities of oil are stored, transported, and handled to support the operations of KSC. The KSC SPCC Plan describes both the facility-wide and site-specific approaches for preventing and addressing spills. In addition, the SpaceX Emergency Action Plan describes procedures relating to spills and toxic releases at LC-39A. All these plans are written to USEPA and state requirements. Additionally, RCRA imposes stringent

Issue ID: 16	Issue Name: Hazardous Materials and Hazardous Waste			
Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
				requirements on the handling, management, and disposal of hazardous waste, especially in comparison to requirements for nonhazardous wastes. As both KSC and SpaceX are designated as Large Quantity Generators of hazardous waste, both are required by USEPA, under RCRA, to develop and maintain a written contingency plan to minimize harm from fires, explosions, or releases of hazardous waste, and must submit this plan and a quick reference guide to local authorities. The plan requires detailed arrangements with local responders, a trained emergency coordinator, specified emergency equipment, and clear procedures for emergency response and personnel training (see 40 CFR 262.262). Hazardous wastes generated on KSC must be managed, controlled, and disposed of per the KSC Waste Management requirements outlined in KNPR 8500.1. All waste management records and manifests must be maintained and made available for review by NASA. All spills must be reported to the KSC emergency spill team immediately, which are then responded to by KSC response teams.
Lewis Kontnik	FAA-2024-1395-0300-0005	The risk of catastrophic accidents must also be considered and mitigated in a thorough and honest way. The storage and transportation of MASS AMOUNTS OF ROCKET FUEL in the vicinity of hundreds of rocket launches per year creates the risk of enormously destructive explosions. Unfortunately, we are aware of the launch industry history: Infrequent but potentially devastating rocket explosions. This requires detailed study, planning, and preparedness. Where is that analysis and mitigation plan?	HW-4	See response HW-4.
Lyman Welch	FAA-2024-1395-0421-0004	Hazardous Materials & Emergency Response Each launch involves large volumes of liquid methane and liquid oxygen; repeated fueling cycles raise the probability of accidental releases or explosions. The Draft EIS lacks detail on federal oversight, response standards, and public transparency. Recommendation:	HW-4	See response HW-4.

Issue ID: 16	Issue Name: Hazardous Materials and Hazardous Waste			
Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
		Require a formal Hazard and Operability (HAZOP) study that evaluates worst case scenarios for fuel spills, fire, and blast radius; establish a joint emergency response protocol with County Emergency Management, the U.S. Coast Guard, and local fire districts, including clear evacuation routes and public notification procedures; mandate annual, third party safety audits with results posted on a publicly accessible portal.		

Notes: CANA = Canaveral National Seashore; CFR = Code of Federal Regulations; DEIS = Draft Environmental Impact Statement; EIS = Environmental Impact Statement; FAA = Federal Aviation Administration; KNPR = Kennedy NASA Procedural Requirements; KSC = Kennedy Space Center; LC = Launch Complex; MINWR = Merritt Island National Wildlife Refuge; NASA = National Aeronautics and Space Administration; SpaceX = Space Exploration Technologies Corp.; RCRA = Resource Conservation and Recovery Act; SPCC = Spill Prevention, Control, and Countermeasure; USEPA = United States Environmental Protection Agency; USFWS = United States Fish and Wildlife Service.

Issue ID: 18	Issue Name: Pollution Prevention			
Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
ross burnaman	FAA-2024-1395-0092-0003	In addition, while the draft EIS discusses launch of the Super Heavy, it does not take into account the proliferation of space junk and the potential for destruction of valuable space assets caused by the many planned payloads and release of “Starling” space junk.	PP-1	EIS analyses are limited to potential effects within the identified study areas and global commons, as proscribed by NEPA. Potential effects outside Earth’s atmosphere are not within the purview of NEPA.
Anonymous	FAA-2024-1395-0106-0003	In the event of an anomaly, unburned liquid methane, liquid oxygen, or other hazardous substances could be released. A toxicological risk assessment should model human exposure pathways, including inhalation and drinking-water contamination, particularly given the porous geology and proximity to the Indian River Lagoon.	PP-2	Liquid methane itself is not toxic according to USEPA’s definition of toxicity, but it poses a severe asphyxiation risk (similar to the threat posed by carbon monoxide exposure) and can cause extreme frostbite and burns on contact. The primary health hazards stem from its physical properties as a cryogenic liquid and its ability to displace oxygen when it vaporizes. When exposed to normal atmospheric temperature and pressure, liquid methane vaporizes very rapidly. There are two main types of toxicological risk associated with liquid oxygen: direct physical harm from its cryogenic nature and the physiological effects of breathing high concentrations or pure oxygen. While liquid oxygen vaporizes very rapidly, it does not disperse quickly. Were a combustible anomaly to occur, the

Issue ID: 18	Issue Name: Pollution Prevention			
Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
				liquid methane and oxygen would burn out. Thus, potential exposure and associated risk is associated with persons at or near a non-combustible anomaly resulting in product release. In the case of such an anomaly, the highest risk would therefore be near the release point at the pad, where personnel and the public would not be present. It is extremely unlikely for liquid oxygen to contaminate drinking water directly in a harmful way. When it comes into contact with water, the liquid oxygen would quickly boil and evaporate into gaseous oxygen due to the water's warmer temperature. Methane itself is not toxic to ingest; the most immediate danger comes from the release of flammable gas, not from drinking water with low concentrations of dissolved methane. With regards to "other hazardous materials," the comment is too vague to address specifically. However, EIS Section 3.13.4.2.2 states that Starship-Super Heavy is constructed primarily of stainless steel, which is non-toxic and inert. Other debris includes thermal heat tiles composed of silica, which has similar properties to glass and is highly resistant to degradation. The heat tiles are considered inert. Effects on air quality or water chemistry are not expected. Starship would have approximately 34 gallons (129 liters) of hydraulic fluid. In the event of an anomaly, hydraulic fluid may remain contained in the vehicle, ignite, or be released. In the event of a spill of "other hazardous materials" SpaceX Emergency Action Plan procedures are as follows: (1) At LC-39A, the SpaceX Environmental Health and Safety Manager is the Emergency Coordinator until the Fire Chief arrives (if required). (2) As acting Emergency Coordinator, the Environmental Health and Safety Manager will perform the following actions (as applicable) in the event of a fire, explosion, or release of hazardous waste or hazardous waste constituents, which could threaten human health or the environment: activate internal facility alarms or communication systems, where applicable, to notify all facility personnel; and notify

Issue ID: 18	Issue Name: Pollution Prevention			
Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
				appropriate state or local agencies with designated response roles if their help is needed.
City of Cape Canaveral	FAA-2024-1395-0288-0012	There is additional concern about debris washing ashore on the City's beaches, either from intentional water landings or unplanned overpressure events. Such debris could pose hazards to public health and safety and negatively affect tourism. Likewise, while the draft EIS notes uncertainties regarding sonic boom impacts on archaeological and cultural resources, it does not address how these uncertainties will be monitored or resolved. Given Cape Canaveral's location along the launch corridor, its two miles of coastline, and its reliance on tourism and stable neighborhoods, the City asks the FAA to take a closer look at these impacts. A stronger analysis is needed to ensure residents and visitors have clear information, community resources are protected, and local concerns are part of the decision-making process.	PP-3	As noted in Section 3.13.4, SpaceX would be responsible for cleanup associated with solid wastes generated by its operations. The NHPA Section 106 Programmatic Agreement provided in Appendix B provides information regarding historic structure and archaeological monitoring.
Anonymous	FAA-2024-1395-0436-0032	Provide ecological exposure modeling: what levels of pollutants might accumulate in soils, water bodies, or biota under repeated launches over many years; what thresholds of pollutant concentration are considered safe for listed species; what margin of safety is built in?	PP-4	Potential effects to the natural environment are addressed throughout the EIS in various resource-related sections (e.g., Section 3.8, *Biological Resources*, and Section 3.9, *Water Resources*). See response NP-2 for additional information.

Notes: EIS = Environmental Impact Statement; LC = Launch Complex; NEPA = National Environmental Policy Act; NHPA = National Historic Preservation Act; SpaceX = Space Exploration Technologies Corp; USEPA = United States Environmental Protection Agency.

Issue ID: 21	Issue Name: Transportation			
Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
Cheryl Rogers	FAA-2024-1395-0117-0006	I ask that the FAA & SpaceX work closely with airlines to minimize closures, explore smarter scheduling, and adopt routing alternatives that protect both flight safety and passenger convenience.	TR-1	EIS Section 2.1.3.1 and Section 3.16.4.2.2 both describe in detail airspace coordination and potential effects to airspace and air traffic. Coordination includes notifications of airspace closures via NOTAMs and publication of AHAs.

Issue ID: 21	Issue Name: Transportation			
Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
Anonymous	FAA-2024-1395-0125-0001	More consideration should be given on the impact of these additional launches on the national airspace and airports in the south-east US. The impact from current launches already affects commercial air traffic in the Florida Peninsula with extended ground holds and delays, and crews timing out causing a domino effect throughout the system. The current staffing levels of air traffic centers and TRACONs affected and the antiquated technology cannot support additional squeezing of air traffic before and after a launch. There are many steps the FAA should be taking to improve the overall air navigation system in the region prior to adding launches. The number of commercial air travelers directly affected by these delays will grow and the so will the disgruntled citizens who will contact their elected representatives to demand something gets done to limit the launches' impact on their trips. All commercial airports will be affected unlike what is mentioned in the presentation as JAX, TPA, MCO, FLL, MIA.	TR-1	See response TR-1.
Greater Orlando Aviation Authority	FAA-2024-1395-0426-0011	Define and clarify the closure procedures both in time and physical area prior to issuance of a Record of Decision to allow an analysis of impacts and mitigation strategies for shared use of the airspace by both commercial service, general aviation, and space operations.	TR-1	See response TR-1.
American Association of Nude Recreation-Florida Region	FAA-2024-1395-0169-0003	We disagree with the conclusion that flight delays of two hours due to launch/reentry windows will be "insignificant." Travel and tourism must be convenient to passengers. For if it is not, it will have devastating effects to the economies our state and region.	TR-2	See Section 3.4.4.2.2 and Section 3.16.4.2.2 of the Final EIS, with information added, for discussion of the potential socioeconomic and transportation effects of the Proposed Action, respectively.
American Association of Nude	FAA-2024-1395-0169-0016	We are also concerned that flight delays of two hours due to launch/reentry windows were determined to be "insignificant." How can it be guaranteed that delays would not exceed two hours? And are the airlines, FAA,	TR-2	See response TR-2.

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Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
Recreation-Florida Region		and the U.S. Department of Transportation positioned to handle delays across a system? No details were provided.		
Hyun Jung Cho	FAA-2024-1395-0145-0004	Airspace closures cause aviation delays at the major and smaller airports and airways that are already experiencing increasing flight delays and cancellations. The draft EIS does not include cost modeling and impacts of the airport/air travels.	TR-2	See response TR-2.
James O'Brien	FAA-2024-1395-0419-0004	These closures ripple through Orlando area traffic flows and the broader National Airspace System at one of the nation's busiest air travel markets, compounding regional traveler and airline costs (the Draft EIS fails to monetize these effects).	TR-2	See response TR-2.
Whitmore	PublicMeeting-082625-0011-0004	I think that the impact on the airports is going to be very significant. And I don't know how they -- I don't know how you guys evaluate that and how you determine what is more important, those launches or the commercial effects of those airlines.	TR-3	Commercial launch windows are negotiated between launch service providers and the FAA. The FAA would manage Starship-Super Heavy operations in a way that minimizes disruption to existing aviation operations and ensures safety for all airspace users.
Speaker	PublicMeeting-082825-0002-0002	I've also heard that launches will delay air flights out of Orlando airport. I don't know about Sanford. But how does that affect the number of flights out of Orlando?	TR-4	While there may be temporary flight delays, it is not expected that there would be any decrease in the number of flights from Orlando International Airport.
Greater Orlando Aviation Authority	FAA-2024-1395-0426-0010	The Aviation Authority is concerned that increased demand for NAS access for Florida users will increase the workload of air traffic controllers. Specifically, the Air Traffic Control System Command Center (ATCSCC) and Jacksonville Air Route Traffic Control Center (ZJX), the latter of which has historically suffered from staffing shortages. The FAA EIS and the Air Force EIS should analyze and disclose the controller workload issues and their impact on the NAS resulting from the proposed action. Of particular interest is how the ATCSCC will prioritize traffic during delay programs. Impacts on air traffic control facilities resulting from additional workload should be included in the analysis	TR-5	The FAA would manage Starship-Super Heavy operations in a way that minimizes disruption to existing aviation operations and ensures safety for all airspace users. Airspace effects from proposed Starship-Super Heavy operations from CCSFS SLC-37 are not known at this time.

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Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
		and may also inform the necessity for mitigation efforts related to the proposed action.		
Patricia E. Swope	TEMP-0021-0004	Recent aviation “near miss” events, the fatal crash over the Potomac River, FM ‘staffing issues at Newark Airport, 132 probationary FAA employees dismissed by DOGE and now the FAA will be charged with increased responsibly of the SpaceX Starship - Super Heavy Launch Vehicle. Will the FAA be prepared for this?	TR-5	See response TR-5.
Speaker	PublicMeeting-082825-0002-0005	We have the Port with the cruises. Will they be affected?	TR-6	EIS Section 3.16.4 addresses potential effects to maritime traffic. While difficult to quantify given certain variables, EIS Section 3.4.4.2.2 acknowledges that Starship-Super Heavy operations would have potential effects to maritime activities if operations result in delays, reroutes, and cancellations. The Port of Canaveral must coordinate launch schedules with cruise ship departures, as a rocket delay could force cruise ships to alter their departure times, and launch closures can affect other port operations, requiring the management of activities and schedules for cruise lines, tugs, and cargo ships that use the port’s facilities. As a result, the Port works closely with NASA and CCSFS to coordinate maritime activities during launches and landings. A specific and comprehensive economic business case analysis would be required to fully quantify the effects of launch activity along the Space Coast, which is outside the scope of this EIS.
Anonymous	FAA-2024-1395-0281-0067	What is the projected impact on cruise ship operations, port cargo throughput, shipping schedules, and maritime traffic? Will ships have to idle, reroute, or be delayed? What costs are borne by companies, workers, and consumers?	TR-6	See response TR-6.
Anonymous	FAA-2024-1395-0436-0062	What is the projected impact on cruise ship operations, port cargo throughput, shipping schedules, and maritime traffic? Will ships have to idle, reroute, or be delayed? What costs are borne by companies, workers, and consumers?	TR-6	See response TR-6.

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Trey Loughridge	PublicMeeting-082625-0012-0004	Not to mention what the damage will be from all of the -- to the infrastructure of all of the trucks coming in bringing nitromethane, which they're fueling this with.	TR-7	Wear and tear is a reasonable expectation from truck usage of roadways, but the FAA does not anticipate a substantial adverse effect to roads. The KSC Master Plan identifies KSC transportation infrastructure as a critical asset and is seeking to identify options for roadway upgrades and maintenance.
Speaker	PublicMeeting-082825-0007-0004	So with the 600 and more jobs that they are bringing and the big buildings that they are building out there, are they going to do any improvements to, like, State Road 3? Going in there at night, the water -- there is no lines, you cannot even See the lines on that road and it gets wet and it is dark. There are no lights all the way down that road.	TR-8	No improvements to State Road 3 are proposed as part of this Proposed Action.
Anonymous	PublicMeeting-082825-0012-0004	So with the 600 and more jobs that they are bringing and the big buildings that they are building out there, are they going to do any improvements to, like, State Road 3? Going in there at night, the water -- there is no lines, you cannot even See the lines on that road and it gets wet and it is dark. There are no lights all the way down that road. And there is wildlife and all of that and I think some of these big corporations, they need to buck up and build the workers, you know, the way to get there and be safe.	TR-8	See response TR-8.
Anonymous	FAA-2024-1395-0281-0064	Which airlines, airport authorities, port operators, cruise lines, shipping companies, and international trade partners have been identified as potentially affected by future airspace or maritime closures caused by Starship-Super Heavy operations at LC-39A?	TR-9	All airlines, airport authorities, port operators, cruise lines, shipping companies, and international trade partners that utilize transportation routes identified in the EIS are potentially affected. EIS Section 2.1.3 and Section 3.16 outline coordination and communication requirements.
American Association for Nude Recreation-Western Region	FAA-2024-1395-0399-0002	Please be mindful to fully notify the airlines of scheduled interruptions due to SpaceX projects in a timely manner, limiting frustration and cost of redirecting air traffic patterns in and around the launch/reentry sites.	TR-9	See response TR-9.
Anonymous	FAA-2024-1395-0436-0060	Which airlines, airport authorities, port operators, cruise lines, shipping companies, and international	TR-9	See response TR-9.

Issue ID: 21	Issue Name: Transportation			
Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
		trade partners have been identified as potentially affected by future airspace or maritime closures caused by Starship-Super Heavy operations at LC-39A?. Have those stakeholders been consulted; what is their assessment or level of support for proposed closure and rerouting protocols?		
Phillip H	FAA-2024-1395-0444-0007	Outline coordination procedures between ATC and local agencies to minimize disruption.	TR-9	See response TR-9.
Anonymous	FAA-2024-1395-0281-0068	What advance notice (NOTAMs, maritime advisories) will be provided to airlines, shipping lines, and ports; how far in advance; and will they be required to adjust schedule or operations proactively?	TR-10	EIS Section 2.13 and Section 3.16 discuss advance notice (NOTAMs, maritime advisories, etc.) requirements.
Anonymous	FAA-2024-1395-0436-0063	What advance notice (NOTAMs, maritime advisories) will be provided to airlines, shipping lines, and ports; how far in advance; and will they be required to adjust schedule or operations proactively?	TR-10	See response TR-10.
City of Cape Canaveral	FAA-2024-1395-0288-0010	To support reasoned decision-making, the City encourages the FAA to strengthen its analysis and provide greater transparency to the public about the timing, frequency, and expected duration of transportation delays. FAA's NEPA Order calls for reasonably foreseeable effects on people and the environment to be identified and disclosed early in the process. Clear communication about potential road, maritime, and airspace delays will help communities, visitors, and the regional economy better prepare and minimize unnecessary disruption.	TR-10	See response TR-10.
AOPA (Jim McClay)	FAA-2024-1395-0258-0004	AOPA urges FAA to perform a deeper evaluation of the cumulative airspace closure impacts on general aviation and, subsequently, to minimize these closure times as much as possible. Specifically, we urge the FAA to activate and deactivate the AHAs in as timely a fashion as possible, activating the AHAs to the degree absolutely necessary to ensure the safety of NAS users.	TR-11	Section 3.16.4.2.2 includes information on the airspace effects from Starship-Super Heavy operations. The FAA would manage Starship-Super Heavy operations in a way that minimizes disruption to existing aviation operations and ensures safety for all airspace users, including general aviation. The FAA activates AHAs in accordance with the timing of approved launch windows and deactivates the

Issue ID: 21	Issue Name: Transportation			
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				affected airspace as necessary to ensure the safety of the other stakeholders of the NAS. As noted in EIS Section 2.1.3.1, the location and size of airspace closures for commercial space operations also vary with each mission type and are influenced by multiple factors, including prior flight history. The size of airspace closures can grow or shrink as reliability is either decreased or increased with results and analysis from each launch. The FAA worked with SpaceX to develop notional launch and reentry trajectories and associated AHAs for this EIS.
Airlines for America	FAA-2024-1395-0340-0001	In light of existing airspace challenges, A4A has serious concerns that the proposed launch vehicle, launch activity and recovery operations will significantly affect airline operations, the NAS—particularly Florida's airspace and airports—and ultimately the traveling public. The scope of the current EIS is considerably broader than the 2019 Environmental Assessment and far more impactful. SpaceX now proposes constructing additional launch infrastructure not previously contemplated to conduct up to 44 Starship-Super Heavy launches per year, along with associated vehicle landings and recoveries. This represents entirely new activity in Florida and at a level that is 76 percent higher than is currently authorized at their launch facility in Texas.	TR-11	See response TR-11.
Airports Council International-North America	FAA-2024-1395-0315-0003	We also note that the Draft EIS does not report how many general aviation aircraft would be affected by launch, reentry, and landing activities, nor does it cite any impacts to military, helicopter, or other aviation activity in the expansive airspace areas that would be closed for launch and reentry activities. Accordingly, the full adverse impacts of Starship launch and landing activities are likely to be considerably larger than our estimates presented above. We believe delay impacts of this magnitude deserve more detailed analysis within	TR-11	See response TR-11.

Issue ID: 21	Issue Name: Transportation			
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		the EIS, inclusive of more detailed consideration of operational alternatives that would mitigate them.		
City of Cape Canaveral	FAA-2024-1395-0288-0009	The draft EIS acknowledges that the Starship-Super Heavy launches and landings would result in more frequent road closures, additional transport of rocket components, and increased visitor traffic during launches. It also notes that vessel traffic at Port Canaveral could be restricted by periodic navigation closures, and that launches, booster landings, and reentries would cause temporary flight delays at multiple airports averaging 40 minutes but lasting up to 2 hours. The size and frequency of the potential airspace restrictions from Starship's launch and booster return operations will have a significant impact on airports including Orlando International, Melbourne International, Miami International, Tampa International, and Fort Lauderdale, which are some of the busiest airports in the State of Florida and relied upon heavily by our residents and visitors. While these impacts are described as temporary, the City is especially concerned that such delays, if not minimized as much as possible, will cause major disruption to the transportation systems that our community and economy depend upon. The draft EIS does not sufficiently evaluate these cumulative potential disruptions or identify specific ways to reduce their effect on our residents, visitors, and Port Canaveral operations. The document also acknowledges uncertainty, noting that the location and size of airspace closures will vary by mission type and may expand or shrink depending on flight reliability.	TR-11	See response TR-11.
City of Naples Airport Authority	FAA-2024-1395-0307-0001	When evaluating the potential impacts of increased launch and re-entry activity, it is essential to view these activities in the broader context of Florida's heavily utilized airspace system. During peak season, aviation	TR-11	See response TR-11.

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		activity is already affected by: • Frequent weather disruptions across the peninsula,• Presidential TFRs in the Palm Beach area, and• General airspace saturation within JAX Center's airspace. When compounded with launch-related restrictions, these factors have resulted in Expected Departure Clearance Times (EDCTs) of 5–6 hours, ground stops, cancellations, and diversions at Naples and at other Florida airports.		
Greater Orlando Aviation Authority	FAA-2024-1395-0426-0003	The Aviation Authority requests that the FAA and the DAF work with SpaceX to fully and clearly define and disclose to the public the parameters of the airspace restrictions, ground stops, and flow programs.	TR-11	See response TR-11.
Greater Orlando Aviation Authority	FAA-2024-1395-0426-0004	The Aviation Authority desires a full disclosure of the impacts to the NAS. The disclosure should include both operational and economic impacts to the NAS, including commercial service airports and general aviation airports.	TR-11	See response TR-11.
Greater Orlando Aviation Authority	FAA-2024-1395-0426-0005	The FAA EIS should fully analyze and disclose impacts of the proposed action to airports and airspace users. This is partly due to the lack of information on the actual restrictions and operational requirements. Notwithstanding the lack of information, in various sections of the FAA EIS document, impacts are quantified in costs.	TR-11	See response TR-11.
Greater Orlando Aviation Authority	FAA-2024-1395-0426-0008	Impacts to Florida airports are not isolated to the State of Florida. Impacts to various Florida airports could create a "ripple effect" across the NAS. It is critical to view impacts to Florida airports as impacts to the greater NAS, as Florida airports serve as critical nodes to the NAS. Analysis of the planned impacts to the NAS, both as a whole and as to Florida airports, should be based upon forecast activity into the future and disclosed to the public.	TR-11	See response TR-11.

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Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
Greater Orlando Aviation Authority	FAA-2024-1395-0426-0009	During space operations, the "MZULO" MCO departure route is closed – typically used by aircraft to cross the Atlantic or serve Caribbean/ South American destinations. MZULO departures are rerouted via DDANY or FATHE and are subject to delays due to increased inland en-route activity. Central Florida airports are often put into delay programs when various airspace constraints, such as convective activity, occur during space operations. The continued closure of this departure route and others should be analyzed and disclosed in the FAA EIS and the Air Force EIS. Possible new routes to mitigate the loss of existing departure routes should also be explored.	TR-11	See response TR-11.
Lee County Port Authority	FAA-2024-1395-0311-0001	Specifically, expansive airspace closures will have detrimental effects on our operations at Southwest Florida International Airport (RSW) and Page Field (FMY) in Fort Myers, Florida. Recognizing the importance of aerospace activity and innovation in Florida, I respectfully request that the FAA thoroughly evaluate the potential consequences for airport operations and air travelers when considering the proposed Starship-Super Heavy activities.	TR-11	See response TR-11.
Palm Beach County Department of Airports	FAA-2024-1395-0299-0002	When discussing potential impacts and affected airports, the Draft EIS specifically makes note of Fort Lauderdale/Hollywood International Airport, Orlando International Airport, Tampa International Airport, and Miami International Airport, and references numerous other international, regional and general aviation airports. Florida is home to more than 120 public use airports, including 21 commercial service airports. Each airport in the state plays a vital role in the overall NAS; as such, the impacts to each airport must also be fully considered as a part of the EIS process.	TR-11	See response TR-11.
Phillip H	FAA-2024-1395-0444-0003	The impacts are not just local. During the reentry phase, airspace restrictions often extend across nearly	TR-11	See response TR-11.

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		the entire state, disrupting wide areas of the National Airspace System. This can force emergency and public service aircraft to divert or delay missions far from the actual launch site. The Draft EIS does not consider the statewide scale of these closures or their cumulative effects.		
Sanford Airport Authority	FAA-2024-1395-0308-0013	Model airport-specific impacts for SFB[in the Final EIS, including commercial, training, and GA operations.	TR-11	See response TR-11.
Miami International Airport	FAA-2024-1395-0303-0003	MDAD requests the FAA to assess the operational impacts at airports and weigh the effects based on expected launch and landing frequency for both Kennedy Space Center and Cape Canaveral Space Force Station based on actions taken by the FAA to change air traffic procedures and/or implement delay programs based on the previous Airspace Management Plans developed by FAA for past launches.	TR-12	The FAA would manage Starship-Super Heavy operations in a way that minimizes disruption to existing aviation operations and ensures safety for all airspace users. The FAA activates AHAs in accordance with the timing of approved launch windows and deactivates the affected airspace as necessary to ensure the safety of the other stakeholders of the NAS.
Anonymous	FAA-2024-1395-0316-0002	The FAA should consider revising airspace evaluation requirements for EAs to include: Environmental and operational impacts for airspace closures such as longer flight routes, additional fuel burn/carbon emissions, longer flight duration, and delays to access airports. Environmental and safety impacts to traditional NAS users above 10,000 feet. The collection of additional information in order to more thoroughly review and comment on the intended operation, including the flight profiles, and the speeds at the altitudes where a commercial space vehicle will encounter commercial airline traffic. The amount of time involved in the operation from take-off, re-entry, and, as appropriate, the landing. The performance envelope of the space vehicle when operating in airspace shared with commercial and general aviation. Airspace impacts on surrounding/adjacent airports, based on vehicle trajectories. Evaluate airspace usage contingency plans	TR-13	This EIS includes information on airspace closures, ground stops, flight rerouting, cancellations and diversions. It also includes information on air quality effects from the airspace closures. The specific airspace effects for each launch and reentry are variable and are controlled by the planned trajectory, time of day, and affected airway routes. The potential AHAs are included in EIS Section 2.1.3.1. Additional trajectories are outside the scope of the EIS.

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		and environmental impacts during an anomaly. Number of projected launches per year.		
Anonymous	FAA-2024-1395-0316-0003	The EIS should include an analysis of all commercial space launch/reentry operations to ensure annual launch operations at KSC do not exceed the operational limits defined in the Acceptable Level of Risk (ALR) concept.	TR-14	Upon receiving a license application from SpaceX for Starship-Super Heavy launch operations at KSC LC-39A, the FAA would review the application in accordance with 14 CFR Part 450 to ensure public safety. Additionally, the FAA is responsible for approving airspace closures in accordance with FAA Order JA 7400.2R, *Procedures for Handling Airspace Matters*, to ensure public safety. The analyses comply with FAA Order 8040.B, *Safety Risk Management Policy*. The completion of the environmental review does not guarantee the issuance of a license.
Julia Bergeron	FAA-2024-1395-0320-0003	Testing and launch activity closures will also impact air travel from KATL, MCO, MIA as well as other large airports. We have Seen testing in Texas result in diverted flights and ground stops during explosive events. What studies are being done regarding spaceflight becoming similar to airline operations and how it can blend into existing air travel safely? In addition to air traffic, cruise and cargo traffic as well as fishery access will also be impacted.	TR-15	Testing and development of the Starship-Super Heavy vehicle occurs in Texas. Proposed launches at KSC LC-39A do not include testing of the vehicle, other than potential test fires before launch. NOTMARs would be issued for test fires, but no AHAs would be issued for static fire tests.
Miami International Airport	FAA-2024-1395-0303-0002	MDAD requests the FAA to assess the environmental effects associated with connected Federal actions expected to be conducted by FAA related to developing and implementing an Airspace Management Plan that could include modifications to flight procedures, Standard Operating Procedures, Letters of Agreements, and air traffic management initiatives to accommodate up to 759 temporary airspace closures annually.	TR-16	This EIS includes information on airspace closures, ground stops, flight rerouting, cancellations, and diversions of the proposed Starship-Super Heavy operations at KSC LC-39A for up to 44 annual launches and 44 annual reentries, and the environmental effects of all aspects of FAA responsibilities, including Letters of Agreement between SpaceX and the FAA. No new airspace procedures are planned to support proposed Starship-Super Heavy operations from KSC LC-39A. Airspace effects from proposed Starship-Super Heavy operations from CCSFS SLC-37 are not known at this time.
Miami International Airport	FAA-2024-1395-0303-0005	MDAD requests the FAA to apply the flight schedule impacts and operational patterns and frequency assumptions defined based on the previous bullet to develop inputs into models such as FAA's Aviation	TR-17	This EIS includes information on airspace closures, ground stops, flight rerouting, cancellations, and diversions of the proposed Starship-Super Heavy operations at KSC LC-39A for up to 44 annual launches and 44 annual reentries. It also

Issue ID: 21	Issue Name: Transportation			
Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
		Environmental Design Tool (AEDT) and delay-capacity models to quantify aircraft noise and emissions and economic impacts associated with delay, diversions and cancelations associated with the Proposed Action compared to the No Action scenario. The scenarios would include reasonably foreseeable space launch and landing operations at other sites located at KSC and CCSFS.		includes information on air quality effects from the airspace closures. The specific airspace effects for each launch and reentry are variable and are controlled by the planned trajectory, time of day, and affected airway routes. The schedule of proposed operations is not known at this time, and due to many factors like time of day, planned trajectory, weather or other delays, the detailed effects to air quality and noise could not be accurately modeled at this time. The FAA would manage Starship-Super Heavy operations in a way that minimizes disruption to existing aviation operations and ensures safety for all airspace users. Airspace effects from proposed Starship-Super Heavy operations from CCSFS SLC-37 are not known at this time.
Anonymous	FAA-2024-1395-0281-0069	What thresholds of delay or closure are considered acceptable (e.g., reroute time, delay minutes, economic cost) before mitigation or revision of launch windows is triggered?	TR-18	Commercial launch windows are negotiated between launch service providers and the FAA. The FAA would manage Starship-Super Heavy operations in a way that minimizes disruption to existing aviation operations and ensures safety for all airspace users.
Anonymous	FAA-2024-1395-0436-0064	What thresholds of delay or closure are considered acceptable (e.g., reroute time, delay minutes, economic cost) before mitigation or revision of launch windows is triggered?	TR-18	See response TR-18.
Greater Orlando Aviation Authority	FAA-2024-1395-0426-0002	While the FAA discloses the range of possible airspace restrictions, including ground stops and delay programs, from 40 minutes to 2 hours, it also discloses that it cannot provide the final, precise restrictions. The impacts resulting from airspace closures will vary greatly depending on the length of time and the amount of airspace that will be closed or put into a delay program. The Aviation Authority suggests that the FAA focus on obtaining the necessary additional information from SpaceX to clarify and refine the temporal and physical constraints of the airspace closures and possible delay programs. This will allow	TR-19	As noted in EIS Section 2.1.3.1, the location and size of airspace closures for commercial space operations also vary with each mission type and are influenced by multiple factors, including prior flight history. The size of airspace closures can grow or shrink as reliability is either decreased or increased with results and analysis from each launch. The FAA worked with SpaceX to develop notional launch and reentry trajectories and associated AHAs for this EIS. See also response TR-11.

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Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
		the FAA to properly analyze and fully disclose all impacts to the NAS.		
Greater Orlando Aviation Authority	FAA-2024-1395-0426-0001	The Aviation Authority is focused on the FAA EIS's discussion of the impacts to the NAS, including possible ground stops and delays resulting from the proposed action described in Section 3.16.4.2.2, entitled Operation - Airspace. The FAA EIS quantifies air traffic impacts using 2024 aircraft information. However, it does not account for increased future operations.	TR-20	Based on the 2024 FAA Terminal Area Forecast for itinerant air carrier, air taxi, and general aviation operations, flights impacted by the Proposed Action would be expected to increase by up to 8.4% percent by 2030. See also response TR-11.
Greater Orlando Aviation Authority	FAA-2024-1395-0426-0007	The FAA should use its Terminal Area Forecast (TAF) to quantify future impacts to the NAS resulting from the planned Starship-Super Heavy launches and reentry operations, which are Seeking approval in the FAA EIS and Air Force EIS.	TR-20	See response TR-20.

Notes: % = percent; AHA = Airspace Hazard Area; CCSFS = Cape Canaveral Space Force Station; CFR = Code of Federal Regulations; EIS = Environmental Impact Statement; FAA = Federal Aviation Administration; KSC = Kennedy Space Center; LC = Launch Complex; NAS = National Airspace System; NASA = National Aeronautics and Space Administration; NOTAM = Notice to Airmen; NOTMAR = Notice to Mariners; SLC-37 = Space Launch Complex 37; SpaceX = Space Exploration Technologies Corp.

Issue ID: 22	Issue Name: Utilities			
Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
Fred Goldstein	FAA-2024-1395-0083-0005	On Page 2-27 Bold Added "The amount of water applied during activation of the deluge system will differ depending on the type of ignition event. With estimates of 300,000 gallons per static fire event (88 total), 400,000 gallons per launch (44 total), and 68,000 gallons per landing (88 total), SpaceX estimates that up to 50 million gallons (190 million liters) of water per year would be utilized for launch/landing deluge operations at the site (approximately 137,000 gallons per day); approximately 92 percent of deluge water utilized is vaporized during operations. SpaceX plans to reuse deluge water that is retained onsite (i.e., not evaporated).	UT-1	EIS Section 3.17.4.2.2 describes the potential effects associated with potable water use. Operational water requirements are within the City of Cocoa's permitted availability, with the Proposed Action increasing the city's usage by approximately 3.6 percent, well within current and projected capacity.

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Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
		Where will the additional water come from to make up for the 92% loss for future test and launches? If from public water supplies, how will that impact their operations and the aquifer?		
Halifax River Audubon	TEMP-0032-0001	The EIS and Space X estimate that they will require 50 million gallons of water per year. This includes what is required for static fire events, launches and recovery landings. The EIS states that launch operators will reuse any left over water. It also says that 92% of the water will be evaporated during above referenced operations. As I read that equation it means that Space X will really require another 46 million gallons to replace the 92% lost to evaporation. That brings the total to 96 million gallons of water annually. If this doesn't constitute a significant impact, what does? Florida is undergoing constant residential property development, with the concomitant requirements for fresh water for these new anticipated residents. If Space X is gulping down in nearly 100 million gallons of water per year, where will these new residents get their drinking water?	UT-1	See response UT-1.
Anonymous	PublicMeeting-082825-0012-0001	So I have a question about the wastewater from the launch deluge system. Because there was a big deal a couple of years ago when SpaceX started, they wanted to process that water and then they were going to put it in the Banana River and everybody threw a big fit and they had these meetings. And then you never heard of what they actually did with it. And now there is twice as many launches as there was then, so I am wondering between all of those launches and the Starship launches, like what is going to happen to the wastewater?	UT-2	See response UT-2.
Julia Bergeron	FAA-2024-1395-0320-0004	Can the current wastewater infrastructure support Starship from 39A, then two additional pads at 37	UT-2	See response UT-2.

Issue ID: 22	Issue Name: Utilities			
Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
		without jeopardizing the Intracoastal waterways or relying on neighboring residential facilities?		
Speaker	PublicMeeting-082825-0007-0001	So I have a question about the wastewater from the launch deluge system. Because there was a big deal a couple of years ago when SpaceX started, they wanted to process that water and then they were going to put it in the Banana River and everybody threw a big fit and they had these meetings. And then you never heard of what they actually did with it. And now there is twice as many launches as there was then, so I am wondering between all of those launches and the Starship launches, like what is going to happen to the wastewater?	UT-2	EIS Section 3.17.4.2.2 describes the potential effects associated with wastewater from LC-39A operations. See responses WR-1 and WR-2 for additional information.
Aerospace Industries Association	FAA-2024-1395-0314-0006	AIA recommends that FAA, in coordination with NASA and the DAF, include in the Final EIS an evaluation of system-wide demand of shared and regional infrastructure. Operators at KSC and CCSFS rely on a combination of site-specific infrastructure and shared systems, including roads, bridges, deluge and wastewater systems, power, commodities, emergency response, and range telemetry. Evaluating these elements as individual resource areas does not capture system-wide demand or potential capacity constraints across the Eastern Range.	UT-3	EIS Section 3.17.4.2.3 addresses "reasonably foreseeable actions," which includes activities at CCSFS and the surrounding area (see EIS Section 2.2 for a detailed list) within the context of the local/regional utility setting. Evaluation of the range's ability to accommodate the various users is the responsibility of the various range management entities, is conducted as part of range planning activities, and is outside the scope of this EIS. NASA operates and maintains its infrastructure in accordance with applicable standards and the KSC Master Plan. In addition to continuing to support NASA's programmatic mission objectives, the Master Plan is designed to maximize the provision of excess capabilities in support of non-NASA access to space. NASA will continue to take these stated priorities into consideration when making NASA property and resources available for commercial use. See responses WR-1 and WR-2 for additional information.
Aerospace Industries Association	FAA-2024-1395-0314-0009	While these actions further highlight the scale of infrastructure demands associated with Starship-Super Heavy, the Draft EIS does not assess how these efforts interact with or offset the broader capacity needs across the Eastern Range. Reliance on individual provider actions is not a substitute for a	UT-3	See response UT-3.

Issue ID: 22	Issue Name: Utilities			
Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
		comprehensive, federally coordinated assessment of infrastructure readiness.		
Aerospace Industries Association	FAA-2024-1395-0314-0008	AIA recommends that the FAA, in coordination with NASA and the DAF, expand the Final EIS to evaluate system-wide demand on shared and regional infrastructure, and that these evaluations be referenced in both reviews. This analysis should identify potential capacity constraints and specific BMPs or investments - whether federal, state, or tenant-funded - to ensure that increased activity can be supported without degrading shared resources. Such an evaluation would provide greater assurance that the Range can safely and reliably accommodate a growing mix of users. By proactively identifying potential stress points, federal agencies and stakeholders can prioritize infrastructure improvements that will reduce delays, enhance mission assurance, and sustain the Range's long-term operability as a shared, national asset.	UT-3	See response UT-3.
Margaret Tinsley	FAA-2024-1395-0321-0005	The EIS does not Seem to provide adequate handling plans for wastewater. It states "Wastewater generated by the ASU and stormwater would be treated onsite via evaporation and retention ponds. If discharge would occur, SpaceX would acquire all necessary permits from the St. Johns River Water Management District and/or the Florida Department of Environmental Protection. "This permitting should occur before SpaceX is allowed to discharge water to the ponds. The EIS claims 2800 gallons per hour total wastewater generation (800 for methane, 2000 for LOX and LN2). Using weather data from the most recent 3 days (relatively normal for September, except without rain), evaporation from the ponds is calculated at 949 gallons per hour - less than 34% of the wastewater generation. How does SpaceX plan to handle the remaining wastewater without discharging it? Will they really truck out that much	UT-4	Stormwater and deluge ponds would be designed based on necessary capacity and would include all required design parameters to meet permitted requirements. See responses WR-1 and WR-2 for additional information.

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		water? While the ponds are sized to hold up to 30 days of wastewater generation, the plants are assumed to run 24/7. If evaporation is only 34% of production, the ponds will be overflowing after approximately 45 days - and that's without rain.		
Southeastern Fisheries Association	FAA-2024-1395-0440-0010	Water quality along the East Coast of Florida is already a major a major issue. Agency permitting does not adequately prevent the discharge of harmful pollutants so acquiring permits will not ensure the water quality does not harm the resources. Freshwater itself is a pollutant to a healthy estuary. Onsite disposal should NOT include discharging industrial wastewater into canals that connect to saltmarsh impoundments or the protected lagoons in the area.	UT-5	SpaceX would be required to obtain and adhere to all required permits for stormwater and industrial wastewater management.

Notes: CCSFS = Cape Canaveral Space Force Station; EIS = Environmental Impact Statement; KSC = Kennedy Space Center; LC = Launch Complex; NASA = National Aeronautics and Space Administration; SpaceX = Space Exploration Technologies Corp.

Issue ID: 23	Issue Name: Health and Safety			
Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
Rhonda Memphis	FAA-2024-1395-0084-0001	The lack of consideration for how this will affect residents' health and well-being is deeply troubling.	HS-1	EIS Section 3.18 includes consideration for any activities, occurrences, or operations that have the potential to affect the safety, well-being, or health of members of the public and employees. To assure the health of the employees at KSC, KSC employs a comprehensive Occupational Medicine and Environmental Health Program that rigorously follows all OSHA, USEPA, NIOSH, and industry standards. Under 51 U.S.C. Subtitle V, Chapter 509, Commercial Space Launch Activities (Chapter 509), the FAA Office of Commercial Space Transportation licenses or permits commercial space launch and reentry operators and sites. The associated safety approval process verifies that acceptable performance criteria have been met and addresses potential hazards and risks to public safety posed by the Proposed Action. Health

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				and safety risks for each type of rocket launch and reentry project are distinct and need to be evaluated separately. The FAA, NASA, CCSFS, USCG, and SpaceX would manage safety risks to protect human health and safety as is current practice. Additionally, SpaceX's license application or license modification must also meet FAA safety, risk, and financial responsibility requirements under 14 CFR Chapter III.
Anonymous	TEMP-0008-0001	I suggest a study of the physical impacts to service people working at KSC. ALS was abnormally high as found by a Harvard study requested by the VA. We do not know if NASA has data on the % of people having/had ALS at the Cape. I suggest a study be done for the LC-37 project.	HS-1	See response HS-1.
Anonymous	FAA-2024-1395-0106-0006	I urge the FAA to require that the Final EIS explicitly evaluate human toxic exposure risks from launch emissions, spills, and accidents. This should include air dispersion modeling, toxicological risk assessment, and cumulative impact analysis, with public disclosure of safety thresholds and mitigation strategies.	HS-2	Human toxic exposure risks are low. As noted in EIS Section EIS Section 3.8.2, the plumes generated from Starship-Super Heavy static fire tests and launches would travel away from the launch pad, with an estimated vapor plume extent of up to approximately 0.2 miles (0.3 kilometers). For Starship and Super Heavy landings, the estimated vapor and heat plume extent is approximately 96 feet (29 meters) from the landing pad. The heat plumes and increased temperatures in this area would be temporary and would only occur during engine ignition and dissipate within minutes. A flame diverter or similar infrastructure (e.g., a water-cooled diverter) would be constructed to reduce potential effects due to the plume (a diverter can direct the plume upward, away from the ground). Therefore, no exposure to plumes is anticipated. With regard to spills, the potential for human exposure is minimized through the implementation of Standard Operating Procedures and management plans (e.g., Spill Prevention, Control and Countermeasure and Hazardous Waste Management Plans) that serve to reduce the frequency and magnitude of spills or environmental exposure. There are no identified scenarios, under nominal operations, where members of the public would be exposed

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				to toxic vapors or chemicals. NEPA does not require extended speculation or worst-case scenario analyses. Operational contingencies (e.g., Emergency Response Plans) are in place to address off-nominal events and ensure public health and safety. See Response AQ-2 regarding air emissions and air quality analyses.
Anonymous	FAA-2024-1395-0106-0002	Health-based thresholds established by the EPA and WHO should be applied to assess risks of respiratory, cardiovascular, and neurological effects.	HS-3	The EIS addresses health and safety risks utilizing standard practice for air emissions modeling (EIS Section 3.11), potential effects associated with hazardous materials and pollution prevention (EIS Section 3.13), and health and safety (EIS Section 3.18) based on guidance as provided in FAA Order 1050.1G.
ross burnaman	FAA-2024-1395-0092-0001	The draft EIS for SpaceX, docket FAA-2024-1395 is inadequate under NEPA. The draft fails to adequately take into account, the high failure rate of this spacecraft.	HS-4	NEPA does not require extended speculation or worst-case scenario analyses. Operational contingencies (e.g., Emergency Response Plans) are in place to address off-nominal events and ensure public health and safety.
Whitmore	PublicMeeting-082625-0011-0005	I mean, Brevard County has one of the highest cancer rates in Florida, so how much worse is it going to get with all this going on?	HS-5	EIS Section 3.18 includes consideration for any activities, occurrences, or operations that have the potential to affect the safety, well-being, or health of members of the public and employees. There is no known correlation between cancer rates and activities associated with the Proposed Action. See response HS-1 for more information.
Tracy Portz	TEMP-0004-0002	Emission/ Fallout ? What is the impact over time to the residents in the are- 100 miles or More- cancer, are Doctors going to be paid for for each resident in the vacinity for the rest of their life and descendents who live in the area?	HS-6	See response HS-5. There are currently no plans to provide reimbursement to residents for doctor visits.
Tracy Portz	TEMP-0004-0005	PTSD- Postramatic stress is triggered by noise such as fireworks. Many people who are triggered by noise avoid these areas, like tbe 4th of july. How are people living and working in these areas supposed to avoid 88 launches and as many sonic booms from the rentries?	HS-7	EIS Section 4.1 identifies unavoidable adverse effects from operational activities across multiple resource areas, some of which have been identified as potentially significant (noise and air quality in particular). While some of these effects could be minimized through implementation of mitigations, or by reducing the scope of the Proposed Action, these effects are inherent to the Proposed Action and cannot be

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				avoided (i.e., a rocket inherently produces noise and air emissions).
Kathleen Ritch	PublicMeeting-090325-0003-0006	The environmental hazard in the region will include potential rocket debris that falls all over our beautiful beaches and potentially injures potentially local residents or tourists.	HS-8	See responses HS-1 and HS-4.
Kristina Fisher	PublicMeeting-090325-0008-0004	I'm also very concerned about the proximity of 39A to 39B. B is the only man-rated launch pad they have right now, it's the only one that's currently launching astronauts to the ISS, the International Space Station. If an explosion happens on 39A or at immediately after takeoff it could easily seriously damage 39B and then we would have no way of getting astronauts on or off the ISS.	HS-8	See responses HS-1 and HS-4.
Kurt Boyken	PublicMeeting-082625-0006-0010	And then, finally, the last two concerns are the high risk of launch anomalies such as the explosions potentially damaging residential areas. I would like to See the FAA take that into critical consideration and deny it.	HS-8	See responses HS-1 and HS-4.
Leroy Gross	TEMP-0002-0001	Now consider a fully tanked Starship exploding on its launch mount after its propellants mixed. LOX and methane do not gel. The overpressure explosion might be equal to a small atomic bomb. Since the coastal area is sand with a high water table, it is possible that much of the soil would liquefy and damage to buildings would be severe. It may be difficult to model such a situation.	HS-8	See responses HS-1 and HS-4.
Russell Hansen	PublicMeeting-082625-0007-0001	The first is given out of the last nine launches for the Starship-Heavy, five of them have blown up either on the pad or over the ocean. So, does the EIS reflect a failure rate of greater than 50 percent when attempting to launch Starship-Heavy?	HS-8	See responses HS-1 and HS-4.
Russell Hansen	PublicMeeting-082625-0007-0002	And my second question is that the most recent failure of the Starship-Heavy was during the static fire test, which resulted in yet another explosion of the rocket on the test pad.	HS-8	See responses HS-1 and HS-4.

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		And so, does the EIS reflect the amount of reconstruction that will be required to rebuild this infrastructure at this rate of failure?		
Patricia E. Swope	TEMP-0021-0005	SpaceX Rocket Failures in Texas have happened several times. Boca Chica is isolated compared to Florida. What would the impact have been if they had occurred in Florida? Debris was scattered for miles with the Texas rocket explosions.	HS-9	See responses HS-1 and HS-4. Additionally, Boca Chica is operationally different than proposals to utilize LC-39A. Boca Chica is utilized for testing and development; anomalies are an expected component of the SpaceX testing and development process.
S N	FAA-2024-1395-0323-0008	How is it safe for the FAA to authorize such a high launch cadence when Boca Chica data demonstrates only a ~50% success rate?	HS-10	Boca Chica is a test and development site. SpaceX's license application or license modification must meet FAA safety, risk, and financial responsibility requirements under 14 CFR Chapter III before the Starship-Super Heavy vehicle can operate at LC-39A.
Anonymous	FAA-2024-1395-0408-0008	Reconcile the Draft EIS launch and landing authorizations with the documented outcomes of the Boca Chica test program and provide independent verification that the proposed activity meets acceptable safety and environmental reliability thresholds.	HS-10	See response HS-10.
Anonymous	FAA-2024-1395-0436-0065	The Draft EIS repeatedly relies on future reliability improving to reduce restrictions and mitigate impacts. Yet recent launch history (e.g. at Boca Chica) shows a roughly 50% success rate for Starship integrated flight tests.	HS-10	See response HS-10.
Anonymous	FAA-2024-1395-0437-0008	How is it safe for the FAA to authorize such a high launch cadence when Boca Chica data demonstrates only a ~50% success rate?	HS-10	See response HS-10.
Anonymous	FAA-2024-1395-0408-0004	Risk Comparison: Provide an evidence-based assessment comparing risks at Boca Chica with risks at LC 39A, including population exposure, debris hazard modeling, and ecosystem vulnerability.	HS-10	See response HS-10.
S N	FAA-2024-1395-0323-0009	What independent engineering or safety analyses confirm that Starship has achieved sufficient reliability for Florida operations?	HS-11	SpaceX's license application or license modification must meet FAA safety, risk, and financial responsibility requirements under 14 CFR Chapter III before the Starship-Super Heavy vehicle can operate at LC-39A. Prior to a

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				Starship-Super Heavy launch at LC-39A, the FAA would review SpaceX's application in accordance with 14 CFR Part 450 to ensure public safety. To meet safety requirements, the FAA would be responsible for approving closures for launch-related activities.
Anonymous	FAA-2024-1395-0436-0068	What specific success or performance metrics will be required before the FAA permits increased cadence, reduced restricted areas, or smaller closure zones?	TR-11	See response TR-11.
Air Line Pilots Association, Int'l	FAA-2024-1395-0428-0008	The safety concerns associated with Starship Super Heavy operations in the heavily traveled North Atlantic Oceanic Airspace Tracks. Aircraft may experience excessive holding over the Atlantic Ocean, requiring aircraft to declare a fuel emergency, divert to an alternate airport, risk navigating under falling debris, or execute a forced water landing.	TR-11	See response TR-11.
Anonymous	FAA-2024-1395-0408-0003	o Independent Analyses: Supply independent engineering and safety analyses that demonstrate Starship reliability is sufficient for Florida operations at the proposed cadence	HS-11	See response HS-11.
Anonymous	FAA-2024-1395-0437-0004	Should the minimally acceptable threshold for licensing not be [Bold: perfection, or as close as possible,] when failures of a vehicle of this scale could endanger human life, public infrastructure, and the surrounding ecosystem?	HS-11	See response HS-11.
Anonymous	FAA-2024-1395-0437-0005	What independent engineering or safety analyses confirm that Starship has achieved sufficient reliability for Florida operations?	HS-11	See response HS-11.
National Parks Conservation Association	FAA-2024-1395-0360-0018	address public health consequences of nighttime awakenings	HS-12	EIS Section 3.2.4.3 acknowledges that the Proposed Action, in combination with reasonably foreseeable actions, would result in potentially significant noise effects and the FAA acknowledges that this is a significant effect. Additional information regarding the effects of noise and nighttime awakenings has been added to Section 3.18.

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American Association for Nude Recreation-Western Region	FAA-2024-1395-0399-0006	The sonic booms create noise disturbances to humans, as well as wildlife. The health ramifications can be extremely difficult creating sleep disruption, stress, anxiety and mental strain. These disturbances are particularly a concern when combined with those who have heart disease, COPD, PTSD, and other conditions that already compromise ones health.	HS-12	See response HS-12.
Anonymous	FAA-2024-1395-0436-0023	What health impact assessments exist regarding chronic exposure to sleep disruption for vulnerable populations (veterans with PTSD, children with autism or sleep disorders, elderly)? Is there empirical data or literature modeling repeated awakenings, physiological stress, or cumulative harm?	HS-12	See response HS-12.
United Launch Alliance, LLC. United Launch Services, LLC	FAA-2024-1395-0376-0025	The Draft EIS also determined that "sleep disturbance, which is estimated to be as high as 82% of affected persons off KSC and CCSFS during booster landings, is expected to be "significant." [Footnote 58: Id., p. 3-35] Not only is this a markedly high proportion of people enduring sleep disruption, but the Draft EIS fails to provide any analysis on the impacts of sleep disruption on human health.	HS-12	See response HS-12.
United Launch Alliance, LLC. United Launch Services, LLC	FAA-2024-1395-0376-0027	The link between environmental noise and a higher occurrence of physiological health outcomes, particularly CVDs, cardiovascular death, and stroke, highlights the severity of noise impacts on human health. Cardiovascular death and stroke are irreversible health conditions, which is why it is necessary for the EIS to consider and address physiological health outcomes in addition to interference with daily activities associated with noise exposure.	HS-12	See response HS-12.
DOI	FAA-2024-1395-0296-0028	Page #: 3-263 Comment: The DEIS states, "the probability of an off-nominal event is very low," however, ES-15 states that SpaceX expects to experience up to " 20 explosive events at the surface of	HS-13	Events associated with Starship-Super Heavy at Boca Chica are not comparable; Boca Chica is a test and development site. SpaceX's license application or license modification to support Starship-Super Heavy operations at LC-39A must

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		the water (Scenario Number 1) for each vehicle for the life of the program." Given the proximity of CANA to the contingency ocean landing area, the NPS continues to express concern over the likelihood of off-nominal events or debris from explosive ocean landings. The NPS continues to request that the probability of an off-nominal event be characterized as moderate to likely, considering that 6 out of 10 vehicles have experienced anomalies as of the submission of these comments.		meet FAA safety, risk, and financial responsibility requirements under 14 CFR Part 450 before the Starship-Super Heavy vehicle could operate at LC-39A. Anomalies, by definition, are not expected events. The reference in the Draft EIS to "up to 20 explosive events at the surface of the water" represents a conservative bounding assumption used to analyze potential environmental effects over the lifetime of the program, not an expected frequency per year or reliability estimate. The FAA will continue to coordinate with the NPS to ensure that debris management, monitoring, and contingency response procedures remain in place to minimize potential effects on the CANA and adjacent resources. SpaceX would be required to retrieve/clean up debris associated with its operations.
Phillip H	FAA-2024-1395-0444-0005	Beyond emergency response, other public service missions such as mosquito control and utility patrols may also be disrupted by recurring airspace restrictions. These operations play an important role in public health and infrastructure safety, and interruptions can have compounding impacts when launch cadence increases.	HS-14	EIS Section 3.2.5 notes that statements including scheduled dates and times for upcoming launches are provided to news outlets and local law enforcement. Public and agency notifications would continue as baseline prior to each launch and would add Starship-Super Heavy launch and landing events. This serves to minimize the likelihood of people being surprised by the events. KSC-PLN-5000_SIMS_Rev_B documents processes and procedures used for planning of all NASA and Partner operations. The Spaceport Integrated Master Schedule provides insight and situational awareness of launch, landing, and/or recovery operations and major operations testing including tank tests, wet dress rehearsals, launch abort testing, and static fire tests. SIMS products and tools are accessible from the non-public Inside Kennedy – Home website. Internal notifications are also provided via email from kennedyspacecenter@dcnotify.com. There are multiple sources accessible by the public that provide launch schedules, including NASASpaceflight.com and a Florida Today app. Those wishing to receive notifications can register at the Brevard County Emergency Management website: https://member.everbridge.net/892807736724796/login.

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Phillip H	FAA-2024-1395-0444-0002	Starship launches and reentries generate Temporary Flight Restrictions (TFRs) that extend from the surface to unlimited altitude. These closures can ground or delay emergency aircraft during critical operations, including medical evacuations, search-and-rescue, and wildfire suppression. The Draft EIS does not analyze these risks or propose mitigation measures to ensure rapid access for emergency flights.	HS-14	See response HS-14.
Phillip H	FAA-2024-1395-0444-0004	The Draft Environmental Impact Statement (EIS) for the SpaceX Starship program does not fully address the effects of launch and reentry operations on aircraft that provide essential public services. While the EIS mentions general airspace closures, it overlooks how these restrictions will directly affect medical evacuation, law enforcement, firefighting, and other public-safety flights that protect communities.	HS-14	See response HS-14.
Phillip H	FAA-2024-1395-0444-0006	Analyze impacts on emergency response and public service flights.	HS-14	See response HS-14.
Phillip H	FAA-2024-1395-0444-0008	Address the statewide scale of reentry TFRs and their effect on public services.	HS-14	See response HS-14.
Air Line Pilots Association, Int'l	FAA-2024-1395-0428-0001	ALPA continues to have safety concerns with the planned Starship Super Heavy operations at LC-39A. The safety concerns stem from the January 16, 2025, SpaceX Starship Super Heavy launch from the Starbase Boca Chica, TX facility. The Starship Super Heavy had an in-flight breakup that resulted in falling debris. As a result, it was reported that several aircraft were required to declare a fuel emergency, resulting in their need to divert to an airport in order to avoid navigating through falling debris. Of the ten integrated Starship launches that have occurred to date, 50% have failed and generated debris hazardous to commercial airliners, and 40% have required the activation of a Debris Response Area (DRA). Of those four DRA	HS-15	The FAA ATO Space Operations Group hosts a live hotline including the commercial space operator, U.S. air traffic control facilities and international air navigation service providers. The FAA communicates the activation of a DRA via this hotline following a notification of an anomaly from the launch operator or the FAA's Office of Commercial Space Transportation. The activation includes a broadcast to all applicable facilities and a message that identifies which DRAs are activated. The FAA ATO Space Operations Group also hosts a separate hotline with aviation stakeholders to provide real-time updates of DRA activation.

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		activations, only one instance resulted in the system being activated within the required time frame, an operational success rate of just 25%. ALPA therefore questions whether the FAA is providing adequate airspace management safety levels to ensure airline flights are protected from Starship Super Heavy launch / reentry operations at LC-39A.		
Air Line Pilots Association, Int'l	FAA-2024-1395-0428-0014	The DRA system is currently activated at the sole discretion of the launch operator. There is an inherent conflict of interest in this practice, which also represents a single point of failure in the DRA system's activation process. Given that the DRA system must be brought online within six minutes and thirty seconds of a space vehicle malfunction, the mishap call to report an anomaly and begin the DRA system activation process must be made immediately. According to statements made by FAA officials in subsequent safety risk assessment meetings, during at least three of the four Starship- related DRA activations SpaceX failed to report their mishaps to the FAA in a timely manner, resulting in the DRA system failing to activate in time to prevent a collision between an airliner and space debris. In one case (Starship flight 7), SpaceX personnel reportedly took thirteen minutes just to call the FAA and report their mishap. The decision to make a mishap call and activate the DRA system during a launch must be in the hands of FAA or other regulatory personnel, not in the hands of a space launch operator's employee. This issue must be rectified before the DRA system can be considered operationally effective at protecting commercial airliners from space debris, and that issue must be resolved before further Starship Super Heavy flights are authorized.	HS-15	See response HS-15.

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Air Line Pilots Association, Int'l	FAA-2024-1395-0428-0009	Lack of the FAA's ability to provide flight crews with the locations of the Aircraft Hazard Areas (AHAs) and Debris Response Areas (DRAs) prior to the launch from LC-39A.	HS-15	See response HS-15.
Air Line Pilots Association, Int'l	FAA-2024-1395-0428-0010	ALPA continues to urge the FAA to provide flight crews with the locations of rocket launch Aircraft Hazard Areas (AHA's) and Debris Response Areas (DRAs) prior to a launch / reentry operation. Neither of these products are available to flight crews prior to launch, and DRA's are not disclosed to the flight crews until after the rocket suffers a catastrophic event. By that time, it is much too late for crews who are flying in the vicinity of the rocket operation to be able to plan, potentially compromising the safe outcome of the flight. Advance notice of AHA and DRA would allow flight crews to exercise their Pilot In Command Authority (PIC) to make an informed and timely decision about their need to potentially reject flight plans that route their aircraft underneath space vehicle trajectories or DRAs.	HS-15	See response HS-15.
Air Line Pilots Association, Int'l	FAA-2024-1395-0428-0011	ALPA has specific concerns for the increased safety risk due to the perceived maturity that the still-in-development Starship Super heavy vehicle may pose to the flying public along the United States (U.S.) and Canadian eastern seaboard. SpaceX has experienced several catastrophic breakups during previous Starship Super Heavy tests. There is a high probability (50%) that a catastrophic failure will occur as SpaceX continues to develop the capability to perform launch operations and return landing of Starship Super Heavy to the LC-39A launch site. Meanwhile the DRA system, designed to ensure airliner safety during a launch anomaly, has an operational success rate of just 25%.	HS-15	See response HS-15.
Air Line Pilots Association, Int'l	FAA-2024-1395-0428-0012	ALPA has concerns to the significant impact to a large volume of airborne aircraft and increased safety risk that the Starship Super heavy vehicle may pose to the	HS-15	See response HS-15.

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		flying public due to the notational range of the hazard area over the Gulf of America and Florida during reentry and return landing of Starship Super Heavy to the LC-39A launch site as depicted in Figure ES-5 from the EIS Executive Summary:		
Air Line Pilots Association, Int'l	FAA-2024-1395-0428-0013	ALPA has concerns about the ability of United States (U.S) and Canadian air traffic controllers to safely manage airspace during Starship Super Heavy operations from LC-39A over the Eastern seaboard, the Caribbean, North Atlantic Oceanic airspace, and the Gulf of America airspace. Specifically, ALPA questions whether a suitable process is in place in order to respond in real-time to an unanticipated rocket anomaly. Given the uncertain success of SpaceX's Starship Super Heavy Rocket launch and recovery operations, ALPA suggests that additional collaborative safety analysis is needed, as well as the development and installation of suitable air traffic systems.	HS-15	See response HS-15.
Air Line Pilots Association, Int'l	FAA-2024-1395-0428-0003	To date, 40% of integrated Starship launches have required the activation of a DRA. However, the DRA system has only been successfully activated within its required six minute and thirty second time frame on one occasion; a 25% success rate. Given the high failure rate of Starship Super Heavy, the DRA system must be able to operate 100% of the time to ensure the safety of commercial airliners, their crews and their passengers.	HS-15	See response HS-15.
United Launch Alliance, LLC. United Launch Services, LLC	FAA-2024-1395-0376-0026	The adverse effects of noise on human health in affected communities are well-documented and scientifically accepted. The Draft EIS contains two critical shortfalls that lead to the gross underestimation of human-health impacts from the repeated, cumulative noise and vibration exposure. The document fails to (1) describe the important physiological impacts of noise on human health, and	HS-16	Additional information regarding the effects of noise and nighttime awakenings has been added to Section 3.18. Cumulative effects are addressed as reasonably foreseeable effects in each resources section of the EIS; this includes SLC-37 (see EIS Section 2.2 for a list of associated reasonably foreseeable actions).

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		(2) include the additional Starship-Super Heavy operations proposed at LC-37 in characterizing the cumulative impacts of the program.		
Air Line Pilots Association, Int'l	FAA-2024-1395-0428-0015	The DRA system is not currently capable of supporting oceanic aircraft operations using High Frequency (HF) communications. The DRA system currently only supports aircraft using Very High Frequency (VHF) radio communications. The proposed Starship Super Heavy launch corridors from Cape Canaveral require the DRA system to be modified to support aircraft in oceanic airspace.	HS-18	The FAA will work with SpaceX and the aviation industry to minimize operational effects to the aviation industry from Starship-Super Heavy launches and reentries.
Air Line Pilots Association, Int'l	FAA-2024-1395-0428-0006	The lack of adequate airspace system tools and capabilities to provide "real time" tracking and alerting to the airborne flight crews when falling debris may be a flight hazard. Although the FAA has "near real time" capabilities to manage nominal (normal) reentry operations of Starship Super Heavy and Starship Super Heavy reusable portions, "near real-time" capabilities may not be sufficient for air traffic control to communicate with, and clear aircraft away from falling vehicles / falling debris during an off-nominal (unplanned or uncontrolled) trajectory, at terminal velocity speeds. ALPA urges the FAA to develop the tools required to provide real-time surveillance of space operations to immediately alert flight crew of falling debris, especially when an off-nominal event occurs.	HS-19	See responses TR-11 and HR-13.
Derek Newsome	FAA-2024-1395-0122-0003	This EIS also does not take into account the potential risks of a vehicle anomaly resulting in the explosion of the vehicle close to the ground. Starship-Superheavy has an extremely spotty record, with no vehicle completing a flight without significant damage to either the ship, booster, or both. The risk of a low to ground explosion could result in far higher values than those projected during a nominal launch. The only close comparison to the potential explosion is that of the	HS-20	See responses HS-4, HS-13, and PP-3 regarding anomalies and debris recovery.

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		Soviet N1-5L launch on July 3 1969 Another potential risk not discussed is the potential for a failed reentry of the Starship vehicle returning to Kennedy Space Center. As Seen on Flights 2, 3, 7, 8, and 9, the Ship can suffer anomalies that result in the vehicle failing to complete a nominal reentry resulting in a significant debris fall. This risk is not at all discussed despite the planned overflight of population centers such as Tampa and Orlando.		
National Parks Conservation Association	FAA-2024-1395-0360-0011	Currently, the DEIS acknowledges that debris and hazardous materials could be distributed due to launch failures, but focuses primarily on recovery in downrange ocean areas, does not provide a debris distribution map, nor an analysis of noise and vibration effects, water or air pollution impacts, due to an "off-nominal event", beyond stating that "noise levels that could be generated by an off-nominal event would depend on the details of the event (e.g., location and type of rocket failure)."	HS-20	See response HS-20.

Notes: ATO = Air Traffic Organization; CANA = Canaveral National Seashore; CCSFS = Cape Canaveral Space Force Station; CFR = Code of Federal Regulations; DRA = Debris Response Area; EIS = Environmental Impact Statement; FAA = Federal Aviation Administration; KSC = Kennedy Space Center; LC = Launch Complex; NASA = National Aeronautics and Space Administration; NEPA = National Environmental Policy Act; NIOSH = National Institute for Occupational Safety and Health; NPS = National Park Service; OSHA = Occupational Safety and Health Administration; SLC-37 = Space Launch Complex 37; SpaceX = Space Exploration Technologies Corp.; U.S. = United States; U.S.C. = United States Code; USCG = United States Coast Guard; USEPA = United States Environmental Protection Agency.

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Frank DeBernardo	FAA-2024-1395-0077-0002	Some level of protection is required that addresses sound abatement more effectively to eliminate this concern and/or insure losses tied to this form of structural impairment.	MT-1	The EIS considers reasonably foreseeable effects and mitigation measures for each environmental effect category. Mitigations, monitoring measures, and BMPs currently under consideration are reflected in the *BMPs, Mitigations, and Monitoring* section for each resource area. All mitigations suggested by the public and agencies during the Draft EIS review process will be considered as part of the decision-

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				making process. For example, USFWS *Biological Conference Opinion, Starship-Super Heavy Construction and Operations at LC-39 FWS Ecosphere Log Number: 2024-0058364*, issued on October 20, 2025 (included in EIS Appendix B), outlines species monitoring and annual reporting requirements. The Biological Conference Opinion also outlines the annual coordination requirement between NASA, SpaceX, FAA, USSF, NPS and the USFWS. The NHPA Section 106 Programmatic Agreement, signed by consulting parties including the FAA, NASA, Florida SHPO, and SpaceX (see EIS Appendix B.3.1), identifies mitigation requirements for historic structures. KSC and CCSFS are engaged and actively support the SLD 45 Range Safety team and the Eastern Range Scheduling Office to coordinate KSC and CCSFS Spaceport operations. KSC and SLD 45 roles and responsibilities for coordination are found in KSC-PLN-5000 Spaceport Integrated Master Schedule and SLD 45 Instruction 13-613, respectively. NEPA does provide the authority to impose mitigation on an applicant, and mitigations that will be implemented as part of the Proposed Action will be identified in the ROD. EIS Section 3.1 discusses the adaptive management approach to developing and implementing mitigations. Issues specific to insurance requirements are identified in response MT-3.
Aerospace Industries Association	FAA-2024-1395-0314-0005	the Draft EIS identifies several BMPs for integrating commercial space operations into the National Airspace System (NAS), calling for close collaboration between space operators, the FAA, commercial airlines, general aviation, and defense stakeholders. It identifies enhanced “real-time communication systems, [and] well-defined scheduling and deconfliction procedures” as key elements for minimizing disruption and maintaining safety. [Footnote 12: ES.8.7 Transportation (EIS Section 3.16), Draft Environmental Impact Statement, SpaceX Starship–Super Heavy Launch	MT-1	See response MT-1.

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		Vehicle at Launch Complex 39A at the Kennedy Space Center, Merritt Island, Florida, FAA, Aug. 6, 2025, at ES-42.] These BMPs reflects the U.S. Government's recognition that structured coordination and transparent communication are essential for balancing multiple users in a limited operating environment. A comparable approach should be applied for launch and reentry operations at the Eastern Range, where the introduction of new vehicles and increasing cadence will contribute to operational overlap.		
Aerospace Industries Association	FAA-2024-1395-0314-0010	AIA recommends that the Final EIS should document a commitment from NASA, in coordination with the DAF, the FAA and other operators, to develop and establish a federally led range access and scheduling framework. This framework should apply principles of transparency, equitable access, and clear conflict-resolution to ensure the predictable use of the Range for all operators. Specifically, it should establish methodologies for hazard area determinations, clear rules for adjacency and overlap, criteria for simultaneous or staggered operations, mission prioritization, and consistent communication with stakeholders.	MT-1	See response MT-1.
Aerospace Industries Association	FAA-2024-1395-0314-0011	the Final EIS should also incorporate a scrub allowance into the calculation of restricted access and closure days, as well as distinguish between operational restrictions affecting launch providers and closures affecting public access. [Footnote 14: Land-Side Coordination, Draft Environmental Impact Statement, SpaceX Starship–Super Heavy Launch Vehicle at Launch Complex 39A at the Kennedy Space Center, Merritt Island, Florida, FAA, Aug. 6, 2025, at ES-13. ("Launch scrubs and weather delays could affect the length and/or number of closures; however, the extent of these occurrences cannot be quantified at this time.").] These measures should be integrated into existing tools	MT-1	See response MT-1.

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		and processes, where practicable, to promote consistency and avoid duplication. Incorporating these elements in the Final EIS would provide operators with greater predictability in planning, strengthen operational feasibility, and ensure that scheduling and deconfliction are coordinated consistently across all users during periods of high demand.		
American Association of Nude Recreation-Florida Region	FAA-2024-1395-0169-0007	We agree that the corporate civic responsibility of SpaceX should be expressed by establishing and maintaining an emergency relief fund for damages incurred by landings and takeoffs, with reimbursements occurring in a timely and non-bureaucratic manner, as suggested by many of the participants at the virtual EIS meeting (September 3, 2025).	MT-1	See response MT-1.
American Association of Nude Recreation-Florida Region	FAA-2024-1395-0169-0008	We believe SpaceX should demonstrate its corporate environmental responsibility by offering funding (operating and personnel) for all beaches in Florida that have designated a clothes-free area to achieve and maintain Blue Flag Status.	MT-1	See response MT-1.
American Association of Nude Recreation-Florida Region	FAA-2024-1395-0169-0021	Additionally, we concur with the multiple statements made that SpaceX, a for-profit company, should exercise their corporate social responsibility and significantly invest in the communities and environments where it operates.	MT-1	See response MT-1.
American Association of Nude Recreation-Florida Region	FAA-2024-1395-0169-0023	One way that SpaceX could demonstrate its corporate environmental responsibility is by funding efforts (operating and personnel) for the Canaveral National Seashore and its three beaches to achieve and maintain Blue Flag Status.	MT-1	See response MT-1.
American Association of Nude Recreation-Florida Region	FAA-2024-1395-0169-0024	Further corporate responsibility would be extended by making the same financial offer to the other two current beaches in Florida that provide designated clothes-free beach areas (Haulover in Miami Beach and	MT-1	See response MT-1.

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		Blind Creek Beach in Hutchinson Island) along with any naturist beach that opens in Florida.		
American Association for Nude Recreation-Western Region	FAA-2024-1395-0398-0002	We also support AANR Florida's calls for SpaceX to exercise corporate environmental responsibility. As a for-profit entity, the company should fiscally support the achievement and maintenance of Blue Flag Status for those beaches in Florida that have designated clothes-free area(s).	MT-1	See response MT-1.
American Association for Nude Recreation-Western Region	FAA-2024-1395-0399-0004	As a for-profit corporation, we believe SpaceX should exercise its corporate responsibly to the NPS and Florida State Parks to support their missions by partially funding (operating/personnel) park systems affected by SpaceX projects, including clothing-optional beaches. These funds could also assist with the aftermath of the environmental disruptions discussed below. In fact, partially funding (operating/personnel) the Florida Fish and Game Conservation Commission to continue to manage fish and wildlife resources for their long-term well-being for the benefit of all people.	MT-1	See response MT-1.
American Association for Nude Recreation-Western Region	FAA-2024-1395-0399-0005	As you consider whether KSC is the ideal location for SpaceX expansion, we urge you to consider the maritime effects on Florida's economy, as well. Florida is the sixth-largest state for goods exports. Again, as a for-profit corporation, we believe SpaceX should demonstrate its corporate responsibly to these industries by setting aside funding (reimbursement program) to recover losses caused by SpaceX projects.	MT-1	See response MT-1.
Anonymous	FAA-2024-1395-0089-0008	Community Engagement – Ensure local HOAs and affected homeowners are consulted in mitigation planning and post-launch monitoring.	MT-1	See response MT-1.
Anonymous	FAA-2024-1395-0089-0009	Without adequate mitigation, the FAA's approval risks imposing ongoing and uncompensated burdens on nearby residential communities, contrary to NEPA's	MT-1	See response MT-1.

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		requirement to safeguard both the environment and the public.		
Anonymous	FAA-2024-1395-0111-0002	Given these concerns, I would support the FAA's approval of the proposed launch schedule only if all booster and vehicle returns are directed to drone ships offshore, rather than to LC-39A. This would significantly reduce the risk of structural damage to homes in the surrounding area and mitigate the impact on local residents.	MT-1	See response MT-1.
Anonymous	FAA-2024-1395-0150-0001	I know that it will be approved despite the concerns of some of the residents however I would think that with all the money space x has perhaps they would think about giving back to the area by supporting efforts to clean up the Indian river and the lagoon(the Banana River).Maybe make sure the National Seashore and the Wildlife preserve protected and groups that take care of them are supported	MT-1	See response MT-1.
Anonymous	FAA-2024-1395-0173-0002	The need for SpaceX to support and maintain programs that are support the environment and ecosystems of beaches that have legally designated clothes-free areas.	MT-1	See response MT-1.
Anonymous	FAA-2024-1395-0281-0053	What is the financial mitigation plan for lost park revenue and affected local businesses?	MT-1	See response MT-1.
Anonymous	FAA-2024-1395-0436-0007	What is the financial mitigation plan for lost park revenue and affected local businesses?	MT-1	See response MT-1.
Audubon Florida	FAA-2024-1395-0251-0006	Section 3.7 of the Draft EIS, beginning at Page 3-126 dismisses the applicability of Section 4(f) of the U.S. DOT Act of 1966 (now codified at 49 U.S.C. §303) to the Canaveral National Seashore and the Merritt Island National Wildlife Refuge. Ordinarily, this part of US Transportation Law would preclude transportation projects from closing or intruding within a park or refuge, unless there is no feasible and prudent alternative to using that land and the program or project includes all possible planning to minimize harm	MT-1	See response MT-1.

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		resulting from the use. FAA concludes that the "Joint Development Exception to Section 4(f)" applies. Even if this is correct, protection of public use could benefit from other strategies. For example, prioritizing the use of Starship Super Heavy launch facilities planned at SLC-37 within the Cape Canaveral Space Force Station would reduce visitor closures due to the greater distance from the entrance road to Canaveral National Seashore.		
Blue Origin, LLC	FAA-2024-1395-0282-0001	DAF recently released a Draft EIS concerning a potential real property agreement between USSF and SpaceX for SLC-37, the issuance of a vehicle operator license for Starship-Super Heavy operations by the FAA, and the approval of related airspace closures by the FAA. Within the SLC-37 Draft EIS, as part of the Proposed Action, DAF evaluated the impacts of an estimated 76 launches, 152 landings (76 per stage), associated static-fire tests, and potential scrubs for Starship-Super Heavy operations at SLC-37. Although the 76 estimated launches and 152 landings at SLC-37 are significant in isolation, their combined impact with the 44 annual launches and 88 Starship and Super Heavy landings each at KSC will result in substantial impacts to Blue Origin's operations and personnel. The FAA and cooperating agencies should therefore take a NEPA-mandated "hard look" at these cumulative impacts and mitigate them accordingly.	MT-1	See response MT-1.
Blue Origin, LLC	FAA-2024-1395-0282-0003	To ensure compliance with Executive Order 14335 (Enabling Competition in the Commercial Space Industry)[Footnote 1: 1 E.O. 14335, Enabling Competition in the Commercial Space Industry, 90 Fed. Reg. 40219, 40219 (Aug. 13, 2025).] requiring Government agencies to work to maintain a competitive launch market and substantially increase commercial space launch cadence and novel space	MT-1	See response MT-1.

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		activities, FAA and cooperating agencies should take the following actions in the Final EIS and adopt mitigation measures accordingly: • Assign additional staff to USSF and FAA's Office of Commercial Space Transportation to support the continually increasing launch operations at CCSFS;• Develop a plan to ensure launch service providers are provided equal access to their facilities, common infrastructure, launch support services, and launch windows; and, • Limit RTLS operations to those cases where offshore or other distant reentry/recovery is impossible, and reduce the overall number of localized sonic booms generated by SpaceX operations.		
Blue Origin, LLC	FAA-2024-1395-0282-0004	Blue Origin uses common infrastructure on KSC and CCSFS in support of day-to-day business and launch operations. Under the Proposed Action, common infrastructure such as commodities and hardware road transport would be hindered or limited. These impacts already occur for Falcon 9 and Falcon Heavy launches and are reasonably foreseeable for the Proposed Action. Blue Origin urges FAA and cooperating agencies to implement mitigation measures to account for these reasonably foreseeable impacts, such as investing in common infrastructure and the creation of alternative transportation routes. Where infrastructure investment is proposed, the Government should provide clear timelines for its implementation. Without mitigation measures, impacts to common infrastructure could cause delays and impede the ability of Blue Origin and other launch providers to meet NSSL and other contractual obligations that assure space access for national security.	MT-1	See response MT-1.
Blue Origin, LLC	FAA-2024-1395-0282-0007	To mitigate the Proposed Action's impacts on common infrastructure, Blue Origin urges FAA and cooperating agencies, specifically NASA, which is responsible for	MT-1	See response MT-1.

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		managing areas on KSC for space-related development and operations, and DAF, which provides facilities and services to support commercial space operations and provides coordination for activities that may be affected by proposed actions on the Eastern Range, to adopt and implement mitigation measures in the Final EIS. These mitigation measures should include expediting Government investment in KSC and CCSFS infrastructure projects that could alleviate impacts from SpaceX's planned construction and operational activities. Specifically, expediting planning, funding, and construction of the Roy Bridges Bridge and Eastern Relief Bridge replacement projects, will reduce socioeconomic impacts on Blue Origin and other launch service providers		
Blue Origin, LLC	FAA-2024-1395-0282-0008	Additionally, DAF should accelerate the S Phillips Parkway haul route modifications that are currently slated to begin construction in October 2026. These road improvement mitigation measures would likely reduce potential delays resulting from the Proposed Action and would ensure other launch service providers are able to continue operating and performing commercial and Government missions.	MT-1	See response MT-1.
Brad Whitmore	PublicMeeting-090325-0010-0004	As for any mitigation ideas. I have noticed that some launches you barely know they're there and some they shake your teeth. Possibly less than optimal launch time or trajectory or windows for atmospheric conditions are considered. And even if it's not optimal for the launch cost, fuel burn, whatever, maybe, if it was factored into the good for the community, that would be a factor that could be a means to mitigate some of the problem that I think we're going to be having.	MT-1	See response MT-1.

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Brevard County Mosquito Control	FAA-2024-1395-0446-0003	Nevertheless, if the proposed Starship-Super Heavy program moves forward, close coordination with BCMC would be essential, whether special waivers or less stringent access limitations could be provided for public health mosquito control operations immediately before and after launches and landings; or, perhaps, general limitations could restrict how many consecutive days Starship launches could be reattempted and airspace closed due to scrubbed launches.	MT-1	See response MT-1.
Center for Space Environmentalism	FAA-2024-1395-0423-0001	To continue to ensure mission success and environmental and social welfare, we encourage that EIS mitigation measures be followed diligently so as to decrease the effects or likelihood of potential anomalies with increased Starship launch cadence, and that future EISs closely evaluate previous anomalies from the same craft.	MT-1	See response MT-1.
Dixie Crossroads Seafood Restaurant, Inc.	FAA-2024-1395-0443-0003	Mitigation at the Space Center should not be allowed to take place outside of Brevard County. Instead of writing checks to mitigation banks, the money could be contributed to the Brevard County Environmental Lands Program for land acquisition and management so that the Space Center's scrub jays and gopher tortoises can be translocated to Brevard County properties and not be sent to other Florida counties, or other states. There are plenty of projects that can be done within MINWR or for Indian River Lagoon restoration within the boundaries of KSC and CCSFS. If additional mitigation is needed after everything gets fixed at the Space Center and the wildlife refuge, then the money should be spent on projects that take place on Brevard County's mainland.	MT-1	See response MT-1.
DOI	FAA-2024-1395-0296-0021	Page #: 3-75 Comment: NPS previously requested that the EIS detail a mitigation strategy to avoid launch activities on holiday weekends. The DEIS states, "It is more likely that there would be minimal to no events	MT-1	See response MT-1.

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		that would result in holiday closures." NPS appreciates this concession but continues to request a formal mitigation strategy to avoid launch activity on holiday weekends.		
E A H	FAA-2024-1395-0442-0001	We are respectfully requesting the FAA to consider mitigations for the loss in revenue for NPS, Local Ecotourism, Commercial fisheries, local fish markets and processers. Space X should be required to subsidize financial loss and damages due to their commercial business. This could be done by creating a registry, business that expect impact can register with the proper documentation, they can provide supporting financial documents proving damages and loss for reimbursement.	MT-1	See response MT-1.
E A H	FAA-2024-1395-0442-0002	We respectfully request mitigations shown towards Boca Chica launch facility to minimize impact to public access be reflected towards MINWR & CANA. We are respectfully requesting launches restrictions during government holidays, limited weekends per year, restricting night and overall number of launches during turtle nesting season, restricting launches during duck hunting season specifically on Wednesdays and Weekends.	MT-1	See response MT-1.
EPA Region 4	TEMP-0030-0002	Mitigation Strategies Section 3.11.5 of the draft EIS lists strategies SpaceX will use to mitigate potential air emissions. Pursuant to 42 U.S.C. § 4332(C)(i), the EPA recommends the final EIS specify the use of certified diesel engines meeting the EPA's nonroad engine emission standards, as described in 40 C.F.R. 1039.101 and 1039.102.	MT-1	See response MT-1.
Fred Goldstein	FAA-2024-1395-0306-0007	SpaceX, in coordination with the FAA, NASA and the USFWS would establish an independent committee of experts as described below with requisite funding for their operations and third-party studies in a broad array of areas. Their charge would be to recommend, fund,	MT-1	See response MT-1.

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		oversee and evaluate studies such as those listed below and others and make recommendations to SpaceX, US Space Force, NASA, and other agencies and operators regarding the impact of, potential mitigation strategies and technologies to ensure ongoing launches while minimizing or eliminating the impact to the Indian River Lagoon, its habitat, species and nearby communities. The committee's meetings would be open to the public and all recommendations, materials and studies would also be readily available to the public. Members of the committee at a minimum should include one or more of the following as required to represent the areas of expertise and local community: a. Environmental Engineer with expertise in hydrology, hydraulics, wastewater treatment, stormwater management, groundwater, aquifers, nutrient pollution, contaminant transport in aquatic systems, and environmental modeling. B. Marine Biologist/Estuarine Ecologist with expertise in the IRL and other similar ecosystems, the plants and animals, and impacts of pollution on aquatic and terrestrial life. C. Atmospheric/Air Quality Scientist – with expertise in rocket exhaust plume chemistry, atmospheric dispersion modeling, air quality monitoring, deposition of pollutants from the atmosphere to water bodies. D. Geologist/Sedimentologist with expertise in sediment transport, heavy metal contamination in sediments, historical pollution records, and geological impacts of launch site operations. Acoustic Engineer with expertise in sound propagation in air and water, and the impact of noise and vibration on aquatic and terrestrial organisms. F. Physician/Population Health/Public Health professional with expertise in the impact of noise, air pollutants, heavy metals and other potential harmful results from these launches on		

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		individuals and communities. G. Representatives from NASA, USSF, NOAA, EPA, FL DEP, FL FWC and US Fish and Wildlife Service. H. A representative from Brevard County.		
Fred Goldstein	FAA-2024-1395-0306-0001	Stormwater SpaceX proposes to construct additional stormwater evaporation, retention, and deluge ponds if needed. I would expect that these would be requirements given the amount of water they are using, the number of launches and the local environment. FAA should require they construct adequate stormwater evaporation, retention, and deluge ponds to meet current and future requirements.	MT-1	See response MT-1.
Fred Goldstein	FAA-2024-1395-0306-0002	Lost NPS Revenue NPS could experience a range of annual fee loss due to closures potentially between $239,000 and $259,000, which equates to a potential annual average revenue loss of between approximately 17 percent and 18 percent. FAA should require that this shortfall be funded by SpaceX with an ongoing annual increase for inflation and additional costs as identified and associated with future launches, their disruption and potential damage, to ensure the required and potential upkeep of the Merritt Island National Wildlife Refuge and the National Park are met.	MT-1	See response MT-1.
Fred Goldstein	FAA-2024-1395-0306-0009	Develop a monitoring plan and fund studies to better understand operational impacts of the deluge water system on local potable water supplies, the local ponds, aquifers and larger Indian River Lagoon habitat and its impact on the aquatic and terrestrial environment, plants and animals.	MT-1	See response MT-1.
Fred Goldstein	FAA-2024-1395-0306-0012	Develop a monitoring plan and fund studies to better understand operational impacts of chemicals and pollutants used or created by rocket launches on the	MT-1	See response MT-1.

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		aquatic and terrestrial environment, plants and animals.		
Fred Goldstein	FAA-2024-1395-0306-0013	Develop a monitoring plan and fund studies to better understand operational impacts of launch frequency on the aquatic and terrestrial environment, plants and animals.	MT-1	See response MT-1.
Fred Goldstein	FAA-2024-1395-0306-0014	Develop a monitoring plan and fund studies to better understand operational impacts of potential debris on the aquatic and terrestrial plants and animals.	MT-1	See response MT-1.
Fred Goldstein	FAA-2024-1395-0306-0015	Develop a monitoring plan and fund studies to better understand the impact of the relevant areas listed above on individuals and the broader population health potentially impacted by these launches	MT-1	See response MT-1.
Fred Goldstein	FAA-2024-1395-0306-0016	Identify and recommend for implementation potential strategies and technology to mitigate or eliminate any operational impacts discovered.	MT-1	See response MT-1.
Fred Goldstein	FAA-2024-1395-0306-0017	NASA is willing to study the impact of noise and vibrations on the nearby Sea Turtle nesting sites, but in terms of the recommendation to conduct “noise and vibration monitoring in the vicinity of LC39A to document and report site-specific operational conditions”, they are “…not supportive of this recommendation.” This seems unusual as they are both similar in their thinking and reasons. FAA should require they monitor noise and vibration in the vicinity of LC-39A, just as they have agreed to with the sea turtles.	MT-1	See response MT-1.
Friends of Canaveral, Inc.	FAA-2024-1395-0298-0004	Further, the DEIS lists no options for mitigating these impacts. Such impacts directly conflict with the enabling legislation of CNS which mandates that the Seashore be managed:“…to preserve and protect the outstanding natural, scenic, scientific, ecological, archeological, and historic values… and to provide for public outdoor recreation use and enjoyment of the same.” (Pub. L. 93-	MT-1	See response MT-1.

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		626, § 1). Congress further directed that "the Secretary shall administer the seashore for the general purposes of public outdoor recreation, including conservation of the natural, scenic, scientific, ecologic, archeological, and historic features contributing to public enjoyment." (Pub. L. 93-626, § 2). These closures would effectively bar the very "public outdoor recreation use and enjoyment" the statute requires, thereby frustrating the Seashore's core legislative mandate.		
Gary Holden	FAA-2024-1395-0228-0004	Environmental Stewardship and Ecosystem Protection The company must commit to comprehensive environmental programs that actively preserve and restore the delicate coastal ecosystems surrounding legally designated clothing-optional beaches. This includes ongoing monitoring, habitat restoration, and wildlife protection initiatives that match the scale of their industrial impact.	MT-1	See response MT-1.
Indian River Lagoon Roundtable	FAA-2024-1395-0277-0017	We must scientifically monitor, record and model the spaceport's impacts on air, water, soil and noise in order to predict and mitigate the long term cumulative effects resulting from the proposed monumental launch rate.	MT-1	See response MT-1.
J Regal	FAA-2024-1395-0350-0003	While the EIS proposes some mitigation measures, such as coordinating with park managers for notifications and minimizing closure durations, these appear insufficient to offset the scale of disruption. Temporary airspace, maritime, and road closures, notified via notices to airmen (NOTAMs), mariners (NOTMARs), and local alerts, do little to restore lost access or mitigate environmental damage. I urge the FAA to reconsider this proposal and explore alternatives that prioritize public access and environmental protection, such as reducing the number of operations or relocating high-impact activities. If approved, stronger mitigation	MT-1	See response MT-1.

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		strategies must be enforced, including compensation for affected communities and enhanced wildlife monitoring.		
J. Jack Kennedy Jr.	TEMP-0016-0007	Foster transparent communication with the community, stakeholders, and the public as operations expand.	MT-1	See response MT-1.
James O'Brien	FAA-2024-1395-0419-0016	Traffic and logistics. Phase commodity delivery to avoid peak hours and corridor bottlenecks given ~19,350 trucks/year projected at full cadence.	MT-1	See response MT-1.
James O'Brien	FAA-2024-1395-0419-0006	Public lands closures and local economic costs are concrete in the record • Based on NPS input and EIS scheduling assumptions, the Draft EIS estimates 33–44 full day closures and up to 33 half day closures at Canaveral National Seashore's Playalinda District—i.e., up to 60.5 "full days" of closure annually, or ~16.5% of the year. The EIS estimates an annual fee revenue loss to NPS of ~$239,000–$259,000, equating to ~17–18% of Playalinda District fee revenues (Table/analysis on EIS pp. 3 74–3 76, 3 75). Implication. These are direct, recurring budget hits to a federal park unit and lost recreation days to the public—impacts the Draft EIS itself notes NPS "may consider significant." Mitigation for these losses should be included in the analysis.	MT-1	See response MT-1.
James O'Brien	FAA-2024-1395-0419-0007	Utilities, truck traffic, and operations scale stress local systems • Water use: Table 3.17 1 projects ~297 million gallons/year of total site water demand, including ~50 million gallons/year for the deluge system (with ~92% evaporated), plus additional flows for future ASU and liquefaction facilities (which generate ~67,200 gal/day of wastewater to on site ponds).	MT-1	See response MT-1.

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		• Truck traffic: The EIS estimates ~19,350 trucks/year to deliver commodities at the assumed cadence (Table 3.16 4), averaging ~53 trucks/day (12 hour day). Implication. Even if regional capacities are not immediately exceeded, this is a large, sustained draw on municipal supply and corridor capacity for a single pad—additive to other providers across KSC/CCSFS. Mitigations to ensure no disruption of municipal services needs to be included.		
James O'Brien	FAA-2024-1395-0419-0012	Fund a community monitoring network and post event reporting for LAmax and overpressure, with corrective action if off center thresholds are exceeded.	MT-1	See response MT-1.
James O'Brien	FAA-2024-1395-0419-0013	Public lands/recreation offsets. Establish an annual compensation agreement with NPS for empirically tracked closure days and fee losses (the EIS already provides a method and baseline).	MT-1	See response MT-1.
Jeremy Hanzlik	FAA-2024-1395-0357-0002	To be a complete document fully addressing the substantive loss of use, the FEIS should show some kind of alternative and mitigation to offset this impact such as an entity committed to providing an alternative clothing-optional beach during closure, free of conflict or creation of an alternative publicly accessible 4(f) resource that is clothing-optional to offset the substantive loss of use by the public.	MT-1	See response MT-1.
Julia Bergeron	FAA-2024-1395-0320-0002	Restricted access to parts of the preserve to include Playalinda Beach does already occasionally occur for safety during launches. This will greatly increase with Starship launches. If SpaceX continues to expand north, pre-launch testing and launches would further impact public access, in turn, impacting wildlife tourism. In Texas, public access was preserved to some extent by limiting beach closures on certain days. Is that an option for the Canaveral preserve?	MT-1	See response MT-1.

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Kathleen Ritch	PublicMeeting-090325-0003-0005	Here are some ideas. SpaceX could pay a daily fee to property owners for every Starship launch. SpaceX could offer homeowner relief of all real estate taxes, given the compensation that we deserve. Cash offers by SpaceX could be made to purchase property at double the market value due to being forced to relocate. Financial responsibility of SpaceX to reimburse homeowners within a certain period of time, not months or years. Establishing a damage fund for other, not only homeowners, but commercial properties in the area.	MT-1	See response MT-1.
Ki Young Chung	FAA-2024-1395-0263-0003	Offer a pilot program for testing such technologies, providing data to refine regulations and encourage sustainable innovation.	MT-1	See response MT-1.
Leroy Gross	TEMP-0002-0002	I would like to suggest a test to determine the damage caused by such a situation. Place pressure and sound sensors in the area of concern. Include small buildings to simulate houses, garages, and sheds. Arrange for a military supersonic fighter plane (F-22?) to make a pass over the area at supersonic speed so that the sonic boom would simulate a missile explosion. Multiple passes at different speeds and altitudes could provide a data set at various sound levels to determine if dangerous conditions could occur in inhabited regions (Titusville).	MT-1	See response MT-1.
Linda Halbritter	PublicMeeting-082625-0009-0002	So how about if SpaceX wants to contribute some funds to the City, who claims that they don't have money, to build a swimming pool with a lazy river. It doesn't have to be elaborate. I lived in Chesapeake Beach, Maryland and they had a water park that was as big as a block, a small block, so it can be done. If SpaceX contributed funds and Titusville can manage it or SpaceX can manage it, which is probably better.	MT-1	See response MT-1.

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Lyman Welch	FAA-2024-1395-0421-0005	Adaptive Management Framework I propose a Multi-Agency Monitoring Committee comprising: FAA, NOAA, U.S. Army Corps of Engineers, Florida Department of Environmental Protection, St. Johns River Water Management District, independent scientific experts (marine biology, atmospheric chemistry, hydrology), and community representatives. The committee would: Review continuous monitoring data (air quality, water quality, acoustic measurements, wildlife observations). Issue trigger-based mitigation orders when predefined thresholds are exceeded.	MT-1	See response MT-1.
Marine Resources Council	FAA-2024-1395-0324-0001	Despite its ecological value, the IRL faces significant stress from nutrient pollution, algal blooms, habitat loss, and rising sea levels. Water quality declines have led to widespread seagrass die-offs and cascading effects on wildlife populations. Activities at the Kennedy Space Center and nearby industrial sites can contribute to these pressures through increased stormwater runoff, noise, light, vibrations, and potential chemical contamination. Because of its proximity to launch facilities, careful assessment of cumulative impacts (such as launch emissions, acoustic shockwaves, and accidental spills) is essential to ensure the protection and restoration of this fragile ecosystem. Strong mitigation measures and ongoing monitoring are critical to safeguard the Lagoon's ecological health and the economies and communities that depend on it.	MT-1	See response MT-1.
Marine Resources Council	FAA-2024-1395-0324-0003	Stormwater Management Plan Given the Indian River Lagoon's history of water quality decline, it is imperative that any expansion of industrial activity include robust water protection measures. The EIS does not adequately assess the potential impacts to the IRL or groundwater from increased stormwater runoff, launch debris, freshwater deluge, and propellant use. We recommend more thorough application of Low	MT-1	See response MT-1.

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		Impact Development and Green Stormwater Infrastructure techniques to keep local waterways clean, including an evaluation of how to best use existing nature-based resources like wetlands.		
Miami International Airport	FAA-2024-1395-0303-0004	MDAD also requests the FAA to develop generalized air traffic management initiatives for major airports with scheduled service to assess potential impact to flight schedules and routing.	MT-1	See response MT-1.
Miami International Airport	FAA-2024-1395-0303-0011	If an environmental assessment of emissions, noise, and socio-economics was conducted, the FAA could define measurable thresholds and key performance indicators (KPI) to ensure the total number of temporary closures do not to exceed measurable thresholds associated with operational impacts when reviewing an Airspace Management Plan to ensure the severity of environmental effects in areas around airports are not significant, and if the closure would exceed acceptable parameters, the launch would be modified or rescheduled. FAA can also apply KPI's to determine the effectiveness of approved Airspace Management Plans in minimizing operational impacts and associated environmental effects.	MT-1	See response MT-1.
National Parks Conservation Association	FAA-2024-1395-0360-0020	(5) commit to adaptive management with enforceable monitoring to ensure real-world noise and vibration effects are captured and mitigated	MT-1	See response MT-1.
Robyn Memphis	PublicMeeting-090325-0004-0001	I am just wondering if -- no one's denying any safety delays or safety closures on Playalinda Beach, we have some of those now and it's completely understandable, but I am wondering more about the logistical factors cited. I'm aware that NPS does control the closures, and I understand that if there's a morning launch it might be a half day, such as that. But I'm just wondering why there, if there's able to have more discussion in ways that various stakeholders can support NPS with regards	MT-1	See response MT-1.

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		to if that's issues with staffing and such, to help protect access to Playalinda Beach.		
Ronald Balogh	FAA-2024-1395-0094-0002	Space X should be required to mitigate the intensity of the sonic booms by whatever means necessary.	MT-1	See response MT-1.
Ronald Balogh	FAA-2024-1395-0094-0003	The FAA or any other regulatory body is not obligated to allow Space X to operate Starship from KSC and based on their past arrogance in ignoring resident noise complaints from California, Texas and Florida I strongly urge strict limits on the frequency of launches and their possible associated sonic booms for any Starship operations from KSC or the CCSFS if they are allowed at all.	MT-1	See response MT-1.
South Atlantic Fishery Management Council	FAA-2024-1395-0297-0002	There is no mention of mitigation for fishermen and their economic loss. According to the EIS document, employment in the forestry, fishing, and related activities field is 43% of Brevard and Volusia counties' job market (Table 3.4-3). Forcing commercial and for-hire recreational fishermen to avoid closed hazard zones causes them to potentially deviate from known or close fishing spots to unknown or further locations, thereby potentially decreasing economic returns by increasing their fuel consumption and other expenditures. A commercial or recreational fisherman who is forced to move away from an active fishing site because of a launch could come away with a smaller catch and therefore suffer negative economic consequences through decreased net economic benefits from a fishing trip. In fact, the Council has already received public comments from Florida fishermen regarding their concerns about the impact these closures will have on their business, other fishing-dependent businesses, and the surrounding economy.	MT-1	See response MT-1.
South Atlantic Fishery	FAA-2024-1395-0297-0003	Fishermen have commented that the sounds and vibrations from launches can cause fish, especially mackerel, to become transient and leave the area	MT-1	See response MT-1.

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Management Council		completely for days at a time. Fishermen, tackle shops, marinas, and other fishing-related businesses often rely on every good weather day to operate. If 132 days (not including launches from other companies or regular rockets, Section 3.18.4.2.2) are no longer available for fishing, or if fish leave the area due to launch impacts, some fisheries may not have enough days to sustain themselves. Yet nowhere in the document is this considered, or is mitigation mentioned for the fishermen and the local businesses they support. The document does mention an insurance policy meant to offset lost wages. SpaceX should plan to utilize this policy to offset the damage these launches will have on commercial and recreational fishermen, whose livelihoods will be negatively impacted, to ensure that the increase in launches doesn't negatively impact the local economy.		
South Atlantic Fishery Management Council	FAA-2024-1395-0297-0004	The Council would like to request support from the FAA office in gathering information on the estimated amount of debris and what it may consist of, to ensure a thorough exploration of the impacts that increasing space launches could have on EFH and on sustaining local fisheries.	MT-1	See response MT-1.
Surfrider Foundation Space Coast Chapter	FAA-2024-1395-0439-0011	Given the importance of Playalinda Beach and other public access points to community members, tourists, and the local economy, we strongly encourage more comprehensive consideration of the anticipated closures' impacts, exploration of alternatives to the proposed closures to reduce lost public access opportunities, and development of protocols for effective public communication and the of monitoring actual closure totals.	MT-1	See response MT-1.
Samantha Branch	PublicMeeting-082825-0001-0003	In the state of Florida, in Brevard County, we are currently are having an issue with homeowners insurance now trying to undermine the warranties on	MT-2	Lawmaking within the state of Florida, or regulating insurance companies, is outside the scope of FAA or NASA regulatory purview. As stated in Section 3.2.5 of the EIS,

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		our roofs saying that we're in a hurricane zone, and therefore, our warranties should be less for years. Well, now with the space program ramping up the way it is considerably, we're having more damage in the area. We're having more sonic booms. We're having other issues as far as fallout. So, at what point are we going to address is this going to be an issue where now the homeowners insurance companies are going to start deciding our homes have damage endurance problems on their roofs and things because of this, where, I guess I should say? And if this hasn't happened, then we need to acknowledge that it's coming and address this and set up something so that it either gets litigated, some law of rule set up for the state of Florida with these insurance companies so that they don't come after us and raise or rates even higher for something we have absolutely no control of.		property owners may contact SpaceX directly (insurance@spacex.com) to submit claims and evidence in support of damage claims.
Speaker	PublicMeeting-082825-0002-0001	At another meeting, I found out that 1 in 10,000 chance of damage to a home. That means someone with every launch is going to have, maybe, damage, and I have some questions about that. What would be the process for getting reimbursed if you have a broken window, a foundation crack, et cetera?	MT-3	The FAA requires that SpaceX carry insurance in the amount of the "Maximum Probable Loss," which is determined on a launch-by-launch basis by the FAA and is up to $500 million per launch (see 14 CFR Part 440). The FAA requires SpaceX to maintain insurance in the unlikely event of claims of property damage resulting from licensed Starship-Super Heavy operations. As stated in Section 3.2.5 of the EIS, property owners may contact SpaceX directly (insurance@spacex.com) to submit claims and evidence in support of damage claims.
American Association for Nude Recreation-Western Region	FAA-2024-1395-0399-0007	Comments were also made about property damage caused by vibrations. We agree that there should be funding set aside from property damage, which can be accessed in a timely manner.	MT-3	See response MT-3.

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Anonymous	FAA-2024-1395-0173-0001	The need for SpaceX to establish and maintain a program of reimbursement of damages occurred as related to takeoffs and landings.	MT-3	See response MT-3.
Samantha Branch	PublicMeeting-082825-0001-0002	We have had explosions in the past. We've Seen explosions drop debris all the way to Turks and Caicos from here. We are aware that the debris is falling. So, our questions as homeowners are with space turning to be more of a business culture versus a national interest slash exploration facet, why are we not setting up a mitigation fund for the debris collection, for the mitigation of damage?	MT-3	See response MT-3.
United Launch Alliance, LLC. United Launch Services, LLC	FAA-2024-1395-0376-0033	Further, the Draft EIS only refers to claims for property damage, which is concerning. It offers no guidance on claims for operational disruptions and related business interruption losses resulting from SpaceX's activities, including any damages resulting from nominal or normal Starship-Super Heavy operations in the absence of a launch mishap. As these comments demonstrate, those disruptions are real, but no claims process or financial liability scheme for damages from nominal operations are described. This is gravely important given the forecasted launch rates at KSC and CCSFS and the super-sized impacts of Starship-Super Heavy on range operations.	MT-3	See response MT-3.
Burris	PublicMeeting-082825-0006-0006	I know that SpaceX supposedly has insurance, but I know for a fact that most insurance for these companies is actually provided by the government and it takes many, many years to get reimbursed for any damages to them.	MT-4	SpaceX is required to comply with the financial responsibility and insurance requirements of 14 CFR Part 440 Subpart A. The FAA will not authorize a launch unless these requirements are met. Third-party damage claims submitted to SpaceX are reviewed and investigated to ensure proper resolution.
Jose Campos	TEMP-0013-0003	Also explained in the presentation that sonic booms during launches and landings that have potential to cause structural damage to the surrounding areas. The staff member explained that we are in the zone that we	MT-5	See responses MT-3 and MT-4.

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		could possibly sustain property damage caused by SpaceX Starship Super Heavy Launch Vehicle. He stated that we would possibly sustain window damage. He stated that it would be up to the property owner to prove that SpaceX caused this damage when submitting the claim. This Seems to me like an excuse for SpaceX/SpaceX Insurance Company to potentially deny a damage claim(s) just because they don't want to pay the claim amount or they don't want to pay for the frequency of potential claims since there is no neutral party or entity involved. This also gives SpaceX/SpaceX Insurance Company an excuse to blame the property owners for being at fault for not upkeeping the structures within the property due to not having a neutral party or entity involved in the submitted damage claim(s).		
Jose Campos	TEMP-0013-0004	How exactly would a property owner prove that SpaceX caused the damage? Do they have to buy cameras for their homes and have them constantly recording the exterior of their buildings to show that SpaceX caused this damage during Starship-Super Heavy Launch Vehicle's static firings tests, other test operations, launches and landings operations? Who will pay for this unfair extra expensive added cost to the surrounding property owner(s)? Will SpaceX pay for this?	MT-5	See responses MT-3 and MT-4.
Jose Campos	TEMP-0013-0008	I believe that there should exist a neutral, impartial or objective individual or entity that a property owner could refer to as a grievance should Space X deny a property owner's claim.	MT-5	See responses MT-3 and MT-4.
Jose Campos	TEMP-0013-0001	I have serious concerns regarding only one (1) bias company such as SpaceX/SpaceX Insurance Company making the sol decision whether they will honor/pay out for a submitted damage claim. There is a high potential or probability for this one entity/insurance company to deny the damage claims submitted. There	MT-5	See responses MT-3 and MT-4.

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		is no neutral, impartial or objective individual or entity brought in to resolve a dispute between a policyholder, insurance company, and an insurance claimant.		
Jose Campos	TEMP-0013-0005	If every single time that SpaceX Starship-Super Heavy Launch Vehicle completes static firings tests, other test operations, launches and landings operations cause structural or cosmetic damage to a surrounding property after how many damage claims will SpaceX/SpaceX Insurance Company say enough is enough and start denying the damage claims? Which will leave property owners at an unfair loss financially and can cause a severe loss of quality of life. Property owners will lose time, experience extreme stress, and take a loss financially.	MT-5	See responses MT-3 and MT-4.
Laura Campos	TEMP-0015-0001	I have serious concerns regarding only one (1) bias company such as SpaceX/SpaceX Insurance Company making the sol decision whether they will honor/pay out for a submitted damage claim. There is a high potential or probability for this one entity/insurance company to deny the damage claims submitted. There is no neutral, impartial or objective individual or entity brought in to resolve a dispute between a policyholder, insurance company, and an insurance claimant.	MT-5	See responses MT-3 and MT-4.
Laura Campos	TEMP-0015-0003	Also explained in the presentation that sonic booms during launches and landings that have potential to cause structural damage to the surrounding areas. This male explained that we are in the zone that we could possibly sustain property damage caused by SpaceX Starship-Super Heavy Launch Vehicle. This male also explained that it would be up to the property owner to prove that SpaceX caused this damage when submitting the claim. I asked this male how do we prove this? Which he did not have an answer for. This Seems to me like an excuse for SpaceX/SpaceX Insurance Company to potentially deny a damage claim(s) just because they	MT-5	See responses MT-3 and MT-4.

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		don't want to pay the claim amount or they don't want to pay for the frequency of potential claims since there is no neutral party or entity involved. This also gives SpaceX/SpaceX Insurance Company an excuse to blame the property owners for being at fault for not upkeeping the structures within the property due to not having a neutral party or entity involved in the submitted damage claim(s).		
Laura Campos	TEMP-0015-0004	How exactly would a property owner prove that SpaceX caused the damage? Do they have to buy cameras for their homes and have them constantly recording the exterior of their buildings to show that SpaceX caused this damage during Starship-Super Heavy Launch Vehicle's static firings tests, other test operations, launches and landings operations? Who will pay for this unfair extra expensive added cost to the surrounding property owner(s)? Will SpaceX pay for this?	MT-5	See responses MT-3 and MT-4.
Laura Campos	TEMP-0015-0005	If every single time that SpaceX Starship-Super Heavy Launch Vehicle completes static firings tests, other test operations, launches and landings operations cause structural or cosmetic damage to a surrounding property after how many damage claims will SpaceX/SpaceX Insurance Company say enough is enough and start denying the damage claims? Which will leave property owners at an unfair financial loss and can cause a severe loss of quality-of-life issues. Property owners will lose time, experience extreme stress, and take a loss financially.	MT-5	See responses MT-3 and MT-4.
Laura Campos	TEMP-0015-0007	What happens when insurance companies altogether refuse to insure Harbor Pointe Condominiums due to SpaceX Starship-Super Heavy Launch Vehicle and launch pad Complex 39A being too close to the Condominium Complex? Will SpaceX provide at their cost insurance to Harbor Pointe Condominiums located at 1-11 Indian River Avenue., Titusville, FL 32796?	MT-5	See responses MT-3 and MT-4.

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Laura Campos	TEMP-0015-0009	What happens if SpaceX/SpaceX Insurance Company files bankruptcy to stop a lawsuit and discharge types of lawsuit judgements or avoid paying damage claims?	MT-5	See responses MT-3 and MT-4.
Jose Campos	TEMP-0013-0006	Also, in the State of Florida it is a known ongoing problem that several Insurance Companies have left the State of Florida. What happens if our insurance premiums increase substantially due to SpaceX Starship-Super Heavy Launch Vehicles potential to cause structural and cosmetic damage to our Condominium Complex. Will SpaceX/SpaceX Insurance Company pay the bill for the insurance premium increases each and every year? It would not be fair for the current property owners to have to take on this added expensive extra responsibility.	MT-7	Many factors influence insurance premiums, and neither the FAA, NASA, nor SpaceX controls how actuaries determine home insurance rates. SpaceX does not intend to compensate property owners for insurance rate increases.
Laura Campos	TEMP-0015-0006	Also, in the State of Florida it is a known ongoing problem that several Insurance Companies have left the State of Florida. What happens if our insurance premiums increase substantially due to SpaceX Starship-Super Heavy Launch Vehicles potential to cause structural and cosmetic damage to our Condominium Complex. Will SpaceX/SpaceX Insurance Company pay the bill for the insurance premium increases each and every year? It would not be fair for the current property owners to have to take on this added expensive extra responsibility.	MT-7	See response MT-7.
Patricia E. Swope	TEMP-0021-0002	In the publication handed out at the Public Meetings in August states: “SpaceX has established an email address where property owners may submit damage claims for SpaceX launches and landings at Insurance SpaceX.com. I could not get the link to work.”	MT-10	As stated, it is an email address, not a web link. The email address is used to correspond with SpaceX to initiate an insurance claim.
John Tiliacos	PublicMeeting-090325-0012-0001	My name is John Tiliacos, I’m the Chief Operating Officer at Tampa International Airport. We have no issue with the Space Program, big supporters of space, however, we are one of four large	MT-11	The FAA will work with SpaceX and the aviation industry to minimize operational effects to the aviation industry from Starship-Super Heavy launches and reentries.

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		airports that the space, the Starship Super-Heavy Program launches is no doubt going to impact. And the bigger concern for us, and I'm sure the other large airports, is the cadence of launches. Obviously, that cadence is going to increase over time. And with each launch comes impacts to commercial and general aviation air traffic through ground delay programs, as you outlined earlier, flow control programs. So there is the potential that there's going to be significant impact to commercial aviation and the traveling public, and that's something that certainly the FAA needs to give consideration to, and, frankly, come up with a plan to mitigate that.		
Airports Council International-North America	FAA-2024-1395-0315-0004	we believe the safety and practicality of using air traffic control initiatives such ground stops, use of miles- in-trail restrictions, dynamic reroutes, and other air traffic management techniques requires additional review and stakeholder engagement. To address these issues, we urge the FAA, SpaceX, and Kennedy Space Center to actively engage with aviation stakeholders, especially Florda Airports, in additional discussions about how the substantial disruptive impacts Starship operations can mitigated and managed effectively.	MT-11	See response MT-11.
Greater Orlando Aviation Authority	FAA-2024-1395-0426-0012	Support safe and equitable access to the NAS, considering air traffic controller workload.	MT-11	See response MT-11.
Greater Orlando Aviation Authority	FAA-2024-1395-0426-0013	Encourage the creation of new airspace route development to future-proof increased space operations.	MT-11	See response MT-11.
Greater Orlando Aviation Authority	FAA-2024-1395-0426-0014	Support innovative technologies to manage airspace and to quickly activate/deactivate airspace closures related to space operations.	MT-11	See response MT-11.

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Greater Orlando Aviation Authority	FAA-2024-1395-0426-0015	Ensure that ATCSCC and ZJX have all necessary resources to plan for space operations and mitigate their impact on the NAS.	MT-11	See response MT-11.
James O'Brien	FAA-2024-1395-0419-0005	Mitigation for the airline industry and affected passengers should be identified.	MT-11	See response MT-11.
James O'Brien	FAA-2024-1395-0419-0015	Airspace management. Hard cap closures at the minimum in Table ES 1 (40 minutes) unless safety requires more; avoid peak airline banks; publish an Airspace Management Plan with quantified delay minute targets for each mission.	MT-11	See response MT-11.
John Tiliacos	PublicMeeting-090325-0012-0002	It's not just the Starship-Super Heavy, I just earlier today learned of an additional EA on the Falcon 9 rocket launches increasing by an additional 70 on top of the 50 daily launches, so that's going to go up to 120 launches a day. So you combine that with what's going on with Starship-Super Heavy and certainly I envision there's going to be significant impact throughout the operating day and evening on commercial air traffic. And again, that's something that we believe the FAA needs to address with regard to mitigating impacts to the commercial air transportation.	MT-11	See response MT-11.
Palm Beach County Department of Airports	FAA-2024-1395-0299-0001	The Draft EIS for the SpaceX Starship-Super Heavy Launch Vehicle Seeks approval for up to 44 launches per year (22 daytime and 22 nighttime). We understand that a central element of SpaceX's mission is rapid booster reusability and a high-frequency launch cadence. However, SpaceX's goal is to eventually achieve a very high flight rate, with launches multiple times per day, which could result in hundreds, if not thousands, of operations annually-an unprecedented level of activity with potentially profound implications for the NAS. This is in addition to the recently issued Finding of No significant Impact (FONSI) for Falcon 9	MT-11	See response MT-11.

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		operations from Launch Complex 40 at KSC, which increases the approved cadence of launches per year from 57 to 120 for that vehicle. While we understand that this supports national security objectives, it also sets the stage for further expansion of both commercial and defense-related launch programs from Florida, with the opportunity to further disrupt commercial and general aviation operations throughout the state; therefore, it is critical that the FAA develop and implement appropriate mitigation measures to address the impacts of these operations to the NAS.		
Miami International Airport	FAA-2024-1395-0303-0006	MDAD requests the FAA to include measurable criteria in the BMPs related to minimizing impacts to airport operations and associated environmental effects such as noise, emissions and socioeconomic by providing measurable criteria and key performance indicators and thresholds to apply to ensure significant environmental and operational impacts do not occur at airports within Florida.	MT-14	MT-14. If there are changes to the Proposed Action, the FAA and NASA would evaluate whether further NEPA review is necessary.
DOI	FAA-2024-1395-0296-0024	Page #: 3-78 Comment: Under the heading of "BMPs, Monitoring, and Mitigation" for socioeconomic impacts the DEIS states, "MINWR would continue to offer information relevant to the sensitive resources and habitat surrounding the SpaceX facilities at their visitor center and CANA would continue to offer field trips to students." It is unclear how student field trips is a mitigating factor to the socioeconomic impact of Starship operations, especially considering how much more challenging it will be to schedule trips with the added Starship-related closures. Please clarify.	MT-15	It is not identified as a mitigation, but a management practice/BMP to provide information to the public regarding the connection between MINWR, CANA, and Space Coast activities.
United Launch Alliance, LLC. United Launch Services, LLC	FAA-2024-1395-0376-0021	The Proposed Action poses a threat to ULA's ability to launch commercial and civil space missions for NASA and its commercial customers. The failure to consider these impacts is in clear contravention of the CSLA, and the launch operator license currently held by ULA	MT-16	Resolving conflicts between range users is not within the scope of NEPA analyses or FAA's mandate. These are issues that need to be resolved as part of the range management and scheduling process between users and range managers.

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		granted by the FAA in support of commercial missions performed under the CSLA. Granting a launch operator license for the Proposed Action that has the potential of creating an almost exclusive operational paradigm for one provider is also contrary to the FAA licensing regulations at 14 C.F.R. Section 415.15. The FAA must assess this potential effect and as part of its licensing decision must consider mitigation measures such as operating conditions and limitations that avoid this outcome.		
United Launch Alliance, LLC. United Launch Services, LLC	FAA-2024-1395-0376-0002	Although operational conflict is identified in the Draft EIS and acknowledged by the applicant, the Draft EIS does not discuss or consider mitigation measures required to abate such conflict and resulting operational interference. Instead, the Draft EIS arbitrarily advances the Proposed Action.	MT-16	See response MT-16.
United Launch Alliance, LLC. United Launch Services, LLC	FAA-2024-1395-0376-0001	ULA has studied the Proposed Action and determined that, based upon the information published in the Draft EIS, the Proposed Action threatens serious interference to ULA's operations that require mitigation. This operational interference will result with each Starship-Super Heavy launch operation (which includes fueling, static fire testing, launch, and reentry) due to the establishment of large Blast Danger Areas ("BDA") or access restriction areas as set forth and illustrated in the Draft EIS. These BDAs will require nearly continuous evacuation of several critical ULA launch facilities. Evacuation is not optional for ULA or other operators within the BDAs established by FAA in the Draft EIS. Air Force regulations require it. [Footnote 1: Launch essential personnel, neighboring operations, and all non-essential personnel ("NOP") evacuate if they are located in the BDA, and operations will also be severely impacted within the Flight Hazard Area, Flight Caution Area, Impact Limit Lines, and Special Control Areas. See	MT-16	See response MT-16.

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		United States Space Force Department of the Air Force, Space Launch Delta 45 Instruction 91-206, Danger Area Information Plan, §§ 1-2 (May 5, 2023). NOPs, including competing launch operators such as ULA, are "those individuals, not associated with the specific/current operation or launch currently under consideration, who are required to perform safety, security or critical tasks at the launch base and who are aware of the launch mission risks and trained in mitigation tasks or accompanied by properly trained escorts." Id., Attach. 1.]Given the frequency of launches submitted for approval in the Proposed Action, ULA's launch capabilities will be routinely halted, effectively rendering ULA operationally frozen during these events. Despite this indisputable operational impact, the Draft EIS failed to meaningfully discuss it, let alone require necessary mitigation.		
United Launch Alliance, LLC. United Launch Services, LLC	FAA-2024-1395-0376-0003	SpaceX's proposed operations will significantly and adversely impact ULA unless mitigation measures are required. But the Draft EIS does not meaningfully identify mitigation measures that would permit ULA, or other launch operators, to safely and effectively operate during SpaceX's proposed operational events as required under NEPA. [Footnote 6: See 14 C.F.R. §§ 450.161, 450.133; See also United States Space Force Department of the Air Force, Space Launch Delta 45 Instruction 91-206, Danger Area Information Plan, §§ 1-2 (May 5, 2023).]	MT-16	See response MT-16.
United Launch Alliance, LLC. United Launch Services, LLC	FAA-2024-1395-0376-0004	The Proposed Action's described activity at KSC at the requested high cadence, which necessitates expansive BDAs, inevitably prevents ULA from operating during the described Starship-Super Heavy launch activities. This is inconsistent with the Executive Order's important goal of enhancing space launch competition. Preventing range gridlock and operational standstills	MT-16	See response MT-16.

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		through effective mitigation measures promotes diversity, industry competition, and innovation, consistent with the Executive Order. Federal launch capacity that appropriately relies on other providers besides SpaceX will be decreased if the Proposed Action is not properly mitigated. The Draft EIS fails to identify mitigation measures necessary to prevent a decrease in space launch competition and federal launch capacity.		
United Launch Alliance, LLC. United Launch Services, LLC	FAA-2024-1395-0376-0006	Despite the importance of ULA's scoping comments, the Draft EIS fails to adequately consider on-site impacts to ULA and other launch providers, facility owners, and operators. While some detrimental impacts are acknowledged, they are not adequately assessed, and no meaningful mitigation measures are proposed. Thus, an unconditional approval of the Proposed Action without required mitigation addressing the debilitating operational impacts would be arbitrary and contrary to NEPA.	MT-16	See response MT-16.
United Launch Alliance, LLC. United Launch Services, LLC	FAA-2024-1395-0376-0007	The Draft EIS essentially concludes that the operational impacts to ULA are unavoidable and, therefore, the Proposed Action should be approved. In Chapter 4 Section 4.1 of the Draft EIS, the FAA states the following: Unavoidable adverse effects from operational activities have been identified across multiple resource areas (e.g., land use and access restrictions, effects to biological resources), some of which have been identified as potentially significant (noise and air quality in particular). While some of these effects could be minimized through implementation of mitigations, or by reducing the scope of the Proposed Action, these effects are inherent to the Proposed Action and cannot be avoided (i.e., a rocket inherently produces noise and air emissions). [Footnote 11: See Draft EIS, Vol. 1, p. 4-1.]Through this statement, the FAA has determined that it is acceptable to significantly	MT-16	See response MT-16.

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		disrupt ULA's operations because such disruption is unavoidable. To the contrary, not only are these impacts actual environmental effects of the Proposed Action, but they are also subject to a fair and thorough analysis of meaningful mitigation measures, meaning they could be avoidable if, for example, the location of the Proposed Action is moved to a less impactful area, or other mitigation measures are implemented that would have the same or similar effect. Here, the Draft EIS failed to propose any meaningful mitigation measures to lessen or minimize the effects on ULA of the access restrictions proposed in the Draft EIS.		
United Launch Alliance, LLC. United Launch Services, LLC	FAA-2024-1395-0376-0009	If more than one space launch operator is to exist at KSC, and ULA is to continue its space launch services to the United States and civil and commercial customers, then the Final EIS cannot ignore mitigation measures needed to reduce the frequency of mandatory evacuations and associated operational shutdowns. A failure to do so is contrary to the FAA's stated purpose in its Draft EIS: to benefit government and public interests, reduce operational costs for more efficient and effective space transportation methods, and to continue the United States's goal of encouraging activities by the private sector to strengthen and expand United States space transportation infrastructure. [Footnote 14: See Draft EIS, Vol. 1, p. ES-4.] Further, failure to consider effective mitigation measures also run contrary to the President's recent Executive Order regarding facilitating competition in the space launch industry and may compromise access to space and national security.	MT-16	See response MT-16.
United Launch Alliance, LLC. United Launch Services, LLC	FAA-2024-1395-0376-0010	The Draft EIS does not provide the required analysis to demonstrate how parties can launch multiple times per day on the range, or launch without major operational interferences, and it also provides no evidence that	MT-16	See response MT-16.

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		other launch operators were consulted regarding critical information necessary to perform such analysis. This is especially significant given the Starship-Super Heavy is the largest rocket ever built, with impacts on a scale never contemplated when KSC and CCSFS were originally developed. These demonstrations must happen now—not after the FAA completes this EIS process and issues a Record of Decision. Under these circumstances, the FAA cannot assess whether appropriate mitigation measures exist until the extent of the problem is understood and other launch providers are consulted regarding their specific concerns.		
United Launch Alliance, LLC. United Launch Services, LLC	FAA-2024-1395-0376-0017	Without effective mitigation, the proposed frequency of Starship-Super Heavy launches from LC-39A jeopardizes the United States's access to space by interfering with the ability of other established launch providers to continue supporting the government's assured access mandate. Unmitigated approval of the Proposed Action will also substantially interfere with ULA's existing commercial launch license rights granted by the FAA, and their real property rights under real property agreements with the Department of the Air Force ("DAF"). Under FAA licensing regulations at 14 C.F.R. Section 415.15, the issuance of a launch license does not relieve a licensee of its obligation to comply with all applicable requirements of law that may apply to its activities, nor does issuance confer any proprietary, property, or exclusive right in the use of any federal launch range or related facilities, airspace, or outer space. Given the prohibition on exclusivity in Section 415.15, the FAA must ensure that by issuing a launch operator license to SpaceX in support of the Proposed Action, that such license does not effectively create an exclusive right for SpaceX to utilize KSC by	MT-16	See response MT-16.

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		virtue of the substantial interference Starship-Super Heavy will cause to another launch licensee, namely ULA.		
United Launch Alliance, LLC. United Launch Services, LLC	FAA-2024-1395-0376-0030	Starship-Super Heavy's impacts must be addressed and mitigated in the final EIS to preserve the reliable and invaluable assets that are CCSFS and KSC. Risking existing KSC and CCSFS successful operations is not an option for the United States in the globally competitive space race. The Proposed Action is not compatible with established launch operations at KSC without proper mitigation designed to prevent operational standstills. Survival and advancement of the government's mandate of maintaining assured access to space depends on not only ensuring the safe operation of this vehicle before it arrives at CCSFS, but also effective mitigation measures assuming the vehicle can operate "nominally."	MT-16	See response MT-16.
James O'Brien	FAA-2024-1395-0419-0017	Cultural resources/property damage. The EIS recognizes public concerns about rattle and damage; make the insurance claims process (already required) more visible and commit to independent assessments for historic structures in the APE exposed to higher overpressures.	MT-17	Mitigating damage to historic structures is addressed in the NHPA Section 106 Programmatic Agreement via consultation with the Florida SHPO and other consulting parties. The Programmatic Agreement is provided in Appendix B of the EIS.
Lyman Welch	FAA-2024-1395-0421-0002	Noise, Vibration & Sonic? Boom Impacts on Wildlife Launch sound levels can reach 125 dB(A) in nearby communities; sonic booms from landings add repeated high-intensity pressure waves. Species-specific concerns: Redfish and Black Drum rely on acoustic cues for spawning; disruptive frequencies could impair reproduction. Sea turtles (largest global loggerhead nesting population and the most extensive green turtle population in the Western Hemisphere) may abandon nests or produce false crawls in response to launch noise and nighttime illumination. Nesting birds may abandon eggs, exposing chicks to predation. Impacts will likely grow with higher launch frequency.	MT-18	Conservation measures, terms, and conditions (i.e., mitigations), and monitoring and reporting requirements associated with protected species are identified in the Endangered Species Act and Marine Mammal Protection Act consultation documents identified in EIS Appendix B; these are incorporated in the ROD and are part of the licensing agreement between the FAA and SpaceX.

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		Recommendation: Deploy a network of calibrated sound level meters and underwater hydrophones to monitor acoustic exposure during launch and landing; set scientifically based acoustic thresholds and adjust launch timing or trajectory when thresholds are exceeded; conduct behavioral studies on indicator species to inform adaptive mitigation.		
Friends of Canaveral, Inc.	FAA-2024-1395-0298-0013	The forthcoming Biological Opinion (BO) being developed by USFWS under Section 7 of the Endangered Species Act must ensure that the proposed action does not jeopardize the continued existence of listed species or adversely modify critical habitat. It must provide for adequate and appropriate avoidance, minimization and mitigation to limit impacts to listed species, including restrictions on night-time lighting during sea turtle nesting season (and to protect bat populations), mandatory monitoring requirements of bird populations and disturbance due to increased cadence of launches, and impacts to resource management actions such as prescribed fire. Increased launch closures and safety zones may further obstruct requisite fire management, thereby exacerbating adverse impacts to species.	MT-18	See response MT-18.
Harry Prosser	FAA-2024-1395-0373-0005	Require monitoring, pre/post-launch surveys, and enforce mitigation: seasonal launch restrictions, habitat monitoring, and adaptive management.	MT-18	See response MT-18.
Fred Goldstein	FAA-2024-1395-0083-0008	I would recommend establishing a study on the impact sonic events have on children, as numerous studies have found that they are more susceptible to hearing loss from loud noises than adults. In addition, the impact loud noises have on children with disabilities should also be considered and monitored. Perhaps ideas like having those in areas expecting higher levels above a threshold should be indoors and even provided	MT-19	See response MT-1; in addition, EIS Section 3.4.4 addresses potential effects to children—no significant effects were identified.

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		with auditory safety equipment during static fires, launches and landings.		
Anonymous	FAA-2024-1395-0089-0004	property damage and loss of use implicate constitutional takings principles and state nuisance laws, which the FAA should consider in mitigation planning.	MT-20	See response MT-1. Additionally, response MT-3 discusses insurance requirements.
American Association for Nude Recreation-Western Region	FAA-2024-1395-0398-0001	We support AANR Florida's call for SpaceX's to express their corporate civic responsibility by establishing and maintaining an emergency relief fund for damages incurred by landings and takeoffs.	MT-20	See response MT-20.
Anonymous	FAA-2024-1395-0089-0006	Compensation or Restitution Mechanism – Establishment of a community claims fund for residents whose properties suffer structural damage or property value loss tied to launch operations.	MT-20	See response MT-20.
Brad Whitmore	PublicMeeting-090325-0010-0003	And it's great that they have insurance for broken windows, but like the gentleman from the fishery said, there needs to be a fund where when there is damage noted that there's reasonably accessible means to recoup what the damages are.	MT-20	See response MT-20.
Cameron Molberg	FAA-2024-1395-0355-0003	The proposal lacks adequate provisions for: Damage Reimbursement: SpaceX must establish a comprehensive compensation program for property damage, business losses, and visitor inconvenience caused by operations Environmental Protection: Mandatory funding for ongoing ecosystem monitoring and restoration programs Community Impact Mitigation: Financial support for affected local businesses and tourism infrastructure	MT-20	See response MT-20.
Cameron Molberg	FAA-2024-1395-0355-0006	Establish robust mitigation fund requiring SpaceX to compensate for all documented impacts Implement real-time communication systems to minimize visitor disruption Mandate comprehensive environmental	MT-20	See response MT-20.

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		monitoring with public reporting requirements Ensure equitable access to all designated recreational areas, including clothing-optional zones		
Mike Merrifield	PublicMeeting-090325-0002-0004	I do think that there needs to be, there definitely needs to be some type of fund that we can address these unintended and unpredicted consequences that are undoubtedly going to occur.	MT-20	See response MT-20.
Southeastern Fisheries Association	FAA-2024-1395-0440-0003	Our shrimp fleet members routinely encounter such debris in their nets which causes excessive damage to the nets making them useless until repaired or replaced. This expense is borne by the vessel owners and they also lose fishing time due to the time to repair or replace the equipment. We have requested the regulatory agencies involved to create a damage fund that can be funded by the rocket companies paying into the fund for each and every rocket launch. To date these agencies have refused to create such a fund, indeed some state they are not able to provide such a fund although the NOAA/NMFS has such a fund available for damage by the offshore oil industry to commercial fishers. We have also requested special legislation by Congress to create and fund such a damage fund but so far have not Seen any action to do so.	MT-20	See response MT-20.
Southeastern Fisheries Association	FAA-2024-1395-0440-0014	A fund should be established to compensate fishers for lost fishing time as well as damaged gear when rocket parts are encountered.	MT-20	See response MT-20.
Southeastern Fisheries Association	FAA-2024-1395-0440-0015	We support the mitigation efforts and encourage you to immediately establish a mitigation fund that will provide payment to fishers for their lost fishing time and to pay for damaged equipment. This fund must be established and a program set up where fishers can provide their information for their losses and they be fully reimbursed for all losses without suffering any depreciation for equipment.	MT-20	See response MT-20.

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Anonymous	FAA-2024-1395-0089-0005	Independent Noise & Vibration Monitoring – Continuous third-party monitoring in affected communities like La Cita to track structural damage and health impacts.	MT-21	See response MT-1 regarding general mitigations, and response MT-17 regarding historic structures.
Anonymous	FAA-2024-1395-0089-0007	Launch Cadence Restrictions – Limit nighttime launches and require additional mitigation if launch/landing frequency exceeds thresholds projected in the Draft EIS.	MT-22	See response MT-1. The FAA's analyses assume a 50/50 day/night split of operations—should these assumptions be exceeded, additional FAA environmental review may be required.
Alexander Howell	FAA-2024-1395-0142-0002	This jump in super heavy-lift launch activity is exciting for space exploration, but it can disrupt students' sleep, especially when launches occur between 1-4 AM. Many students in the area already get around six hours of sleep due to homework, stress, and extracurricular activities, so these early morning launches could make it harder to focus and learn due to tiredness. Since schools are located close to the launch site, such as Theodore Roosevelt, Cape View, Freedom 7, Cocoa Beach, Astronaut, Edgewood, Merritt Island and many others, this affects the local community directly. For these reasons, I recommend that launches should be scheduled to avoid the 1-4 AM hours when possible, and that educational programs be developed alongside launch activity to turn potential disruptions into learning opportunities. By balancing safety, student well-being, and educational engagement, the growing space interest can benefit both the community and future generations.	MT-22	See response MT-22.
Angela Taiclet	TEMP-0014-0005	Our homes are sustaining impacts similar to a minor earthquake, every time one of these launches go off. So to possibly mitigate these problems I would simply ask: Can the SpaceX program minimize nighttime launches - and launch primarily during the day instead, as permitted by alternate launch windows - as was done during the Space Shuttle program? How can the sound suppression processes be greatly improved, to greatly	MT-22	See response MT-22.

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		reduce noise and vibrations? These noise and vibration impacts are becoming a serious nuisance, causing damage to our homes, and adverse effects to our health and quality of life.		
Anonymous	FAA-2024-1395-0131-0002	SpaceX should do their best to schedule launches in a manner which minimizes launches late at night between a period of 10 pm - 6 am. This rocket will be extremely loud compared to a falcon 9.	MT-22	See response MT-22.
Anonymous	FAA-2024-1395-0316-0001	The SpaceX Starship/Super Heavy rocket has roughly 4 times the number of engines as the Falcon 9's, and the potential for disruptive sonic booms and property damage is much higher. One possible solution is if all the boosters from SpaceX Starship/Super Heavy launches are returned to a drone ship instead of returning it to the launch pad. This would greatly reduce the impact from the SpaceX Starship/Super Heavy. Also, restrict the launches to daylight hours so as not to disrupt our sleep, and the sleep of our pets.	MT-22	See response MT-22.
Anonymous	FAA-2024-1395-0108-0001	If SpaceX wants to launch here, they should be required to compensate residents for impacts, including replacing older windows that will rattle and degrade from repeated launches. This creates real maintenance costs for homeowners like me.	MT-23	See responses MT-3 and NO-6.
Cheryl Rogers	FAA-2024-1395-0117-0001	Building new facilities like propellant storage, air separation units, and the launch tower comes with risks to surrounding ecosystems. Heavy construction and long-term operations can generate chemical runoff, stormwater pollution, and air quality issues. That runoff doesn't just stay contained - it can flow into sensitive wetlands, lagoons, and marine habitats. This area is already struggling, especially the Indian River. I ask that the FAA require strong water mgmt and containment systems, ongoing monitoring of air & water quality, and a transparent plan for mitigating accidental spills/leaks.	MT-24	See response MT-1. In addition, water management and containment systems would be designed according to the FDEP, SJRWMD, and Unified Facility Code requirements. Monitoring of air and water quality would be conducted according to permit requirements. Mitigating accidental spills/leaks is addressed through implementation of site-specific Spill Prevention, Control, and Countermeasure Plans, Hazardous Waste Management Plans, and Emergency Response Plans.

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Cheryl Rogers	FAA-2024-1395-0117-0005	Dust, debris, & exhaust from launches pose air quality risks for both workers and nearby residents. Construction and operations involving chemicals, especially methane and liquid oxygen, need careful containment. I urge the FAA to require particulate monitoring before and after launches, with public reporting so communities know the air they're breathing is safe.	MT-25	See response MT-1. In addition, EIS Section 3.11.5 addresses air emissions (including particulates and exhaust) from launches.
Eden Bentley	FAA-2024-1395-0130-0003	Furthermore, once additional analysis is completed and the indications are that vibrations will not be harmful to property owners offsite, sensors should be installed (at the applicant's expense) in rights of ways or other public areas throughout North and Central Brevard County so there will be evidence regarding the amount of vibration and consistence with any analysis that is prepared. The sensors date should be made available to residents suffering property damage alleged to be caused by the Falcon Heavy launches or any other kind of launch.	MT-26	See response MT-3 regarding insurance. Vibration monitoring is a component of the Biological Opinion provided in EIS Appendix B.
Anonymous	FAA-2024-1395-0148-0002	A process should be established for submitting claims. A fund needs to be established to pay for claims, with a requirement for quick review and payout. In some areas, supplementation of property insurance, to offset increased costs, and property taxes, to offset the loss in real estate values should be required.	MT-27	See responses MT-1 and NO-35.
American Association of Nude Recreation-Florida Region	FAA-2024-1395-0169-0022	This includes the corporate civic responsibility of establishing and maintaining an emergency relief fund for damages incurred by landings and takeoffs, with reimbursements occurring in a timely and non-bureaucratic manner, as suggested by many of the participants at the virtual EIS meeting (September 3, 2025).	MT-27	See response MT-27.
Gary Holden	FAA-2024-1395-0228-0003	Corporate Accountability and Damage Mitigation SpaceX must establish a robust and transparent	MT-27	See response MT-27.

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		reimbursement program to address both direct property damage and indirect economic losses resulting from its operations. Corporate responsibility demands proactive compensation mechanisms, not reactive damage control.		
Anonymous	FAA-2024-1395-0148-0002	Starship launches should be scaled back to, perhaps, once a month.	MT-28	See response MT-1. In addition, the FAA has analyzed SpaceX's proposal as defined by SpaceX (EIS Section 2); licenses do not stipulate a certain number of launches; however, if operations exceed the scope of the EIS, additional FAA review may be needed.
American Association of Nude Recreation-Florida Region	FAA-2024-1395-0169-0001	In either case, we advocate for a minimal number of beach closure days if SpaceX expansion occurs.	MT-28	See response MT-28.
Michael Harris	FAA-2024-1395-0231-0001	I would offer as suggestion that launches be planned for the same day of the week, ie. Wednesday becomes launch days. This would allow all involve to plan accordingly well in advance. Wednesday could be a day that would minimize the number of beach goers impacted. Survey Canaveral Seashore visitors to See what day has the least impact, this would help everyone feel they have a part in this. SpaceX have proven they have the ability to launch multiple vessels in the same day. In this program they should explore the same possibilities.	MT-29	The proposed mitigation is not feasible given customer and mission requirements.
Peter Farney	FAA-2024-1395-0250-0002	Some steps to mitigate this impact may not have been considered to date. First, borrow the NOTAM model for airspace closures by publicizing anticipated closures prominently on the NPS Playalinda Beach website, specifically identifying other clothing-optional beaches as alternative destinations. Another alternative is to consider designating another beach outside the closure zone as clothing-optional during launch closures. Such measures will help naturist and non-naturist beach	MT-30	See responses MT-1 and LU-6.

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		goers continue to drive Florida's tourism sector as the space-launch sector grows.		
Ki Young Chung	FAA-2024-1395-0263-0002	Require operators to submit detailed impact assessments for infrastructure changes, ensuring compatibility with existing FAA risk models.	MT-31	See response MT-1. In addition, The EIS utilizes a conceptual plan of proposed infrastructure improvements at LC-39A (see EIS Figure 2.1-11); if there are significant changes then the FAA and NASA would evaluate if further NEPA review may be necessary.
Anonymous	FAA-2024-1395-0281-0049	No compensation or mitigation plan for local businesses or park operations strongly affected by repeated closures appears in the EIS.	MT-32	See response MT-1. In addition, please note that launch-related closures would not force local businesses to close.
Anonymous	FAA-2024-1395-0436-0003	No compensation or mitigation plan for local businesses or park operations strongly affected by repeated closures appears in the EIS.	MT-32	See response MT-32.
City of Cape Canaveral	FAA-2024-1395-0288-0006	The City strongly urges the FAA to require localized air-dispersion modeling to determine whether these emissions would cause or contribute substantially to an air quality violation.	MT-33	See responses MT-1 and AQ-1.
DOI	FAA-2024-1395-0296-0036	Appendix C.2 Page #: Air Quality & GHG Sections 3.11 and 3.12 Comment: The NPS recommends a more robust evaluation of the air pollutant emissions and the associated environmental impacts from rocket launches given the recent growth in the commercial space industry. The NPS requests the opportunity to partner with the Federal Aviation Administration (FAA), the National Aeronautics and Space Administration (NASA) and the Cape Canaveral Space Force Station (CCSFS) to design and implement a park monitoring strategy for Canaveral National Seashore (CANA) to address emerging environmental concerns	MT-33	See response MT-33.
DOI	FAA-2024-1395-0296-0039	(3) Include a commitment in sections 3.11.5 and 3.12.5 (Mitigation and BMPs) to develop an air monitoring strategy for nearby CANA to address information needs and growing air quality concerns from increased rocket launch activity.	MT-33	See response MT-33.

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DOI	FAA-2024-1395-0296-0044	The NPS requests the opportunity to collaborate with the FAA, CCSFC, NASA and other stakeholders to develop a park monitoring strategy designed to evaluate the potential short-term, high-intensity air quality impacts in CANA. We recommend that the air quality and other environmental mitigations in sections 3.11.5 and 3.12.5 include a discussion of air monitoring needs and include a commitment to develop a monitoring strategy. Monitoring could include, but is not limited to, nitrogen oxides (NO, NO2, NOx), particulate matter (size distribution, composition and concentration), black carbon, ozone, trace metals, volatile organic compounds, carbon monoxide and meteorological parameters. This monitoring information is necessary to determine whether increased launch cadences and associated activities at CCSFS and KSC impact park air-related resources and could provide useful information in a time of rapid change in the space industry.	MT-33	See response MT-33.
Fred Goldstein	FAA-2024-1395-0306-0003	The FAA anticipates that launching and landing activities would result in NOx emissions above indicator thresholds and would be considered potentially significant unless localized air-dispersion modeling could demonstrate that the emissions would not cause or contribute substantially to a projected air quality violation of an ambient air quality standard. significant levels of NOx emissions could result in a disproportionate health and safety risk to children. (bold added) This is clearly something that should be closely monitored including near populous areas and schools. Safety procedures should be developed and implemented at locations where children might be present and exposed to these emissions.	MT-33	See response MT-33.

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Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
Fred Goldstein	FAA-2024-1395-0306-0005	Methane to Ozone Upon the return of Super Heavy to the catch tower at LC39A, there is discussion of releasing methane locally. Methane converts to ozone, creating an O3 cloud. The FAA should require monitoring and study this to understand its impact and how widely it might be distributed.	MT-33	See response MT-33.
National Parks Conservation Association	FAA-2024-1395-0360-0013	The DEIS identifies NOx (Nitrogen oxides) as exceeding the significance threshold for air emissions both individually and in combination with other future launch activity based on reasonably foreseeable effects. In addition, this impact is associated with increased launches and the DEIS does not identify effective mitigation measures beyond "minimizing equipment use and idling times, utilizing cleaner burning or lower emission equipment where feasible…"	MT-33	See response MT-33.
National Parks Conservation Association	FAA-2024-1395-0360-0014	Given reasonably foreseeable circumstances of increasing launch cadences across multiple launch sites, including LC39A, an analysis of effective minimization and mitigation measures to decrease GHG, NOx, and other harmful air pollutants to climate and human health should be undertaken, including evaluating lower launch cadence alternatives.	MT-33	See response MT-33.
Anonymous	FAA-2024-1395-0292-0001	From the maps that I was shown, it appeared that the limit would extend northward to around Parking Lots 3 and 4. If that is the case, an alternative public access to areas north of Parking Lot 4 could be via the existing shell road that proceeds eastward from Biolab Road and along the southern shore of Max Hoeck Creek. West of Parking Lots 3 and 4, there is a narrow point going into East Max Hoeck Creek where a small bridge could be constructed to access the north shore. From there, a small stretch of road could be constructed to the man-made hill on the west side of Playalinda Beach	MT-34	See response PA-1 regarding alternatives. In addition, a new access road to Playalinda would require coordination between and approval from NASA, MINWR and CANA. Funding for the development and long-term maintenance would need to be identified early in the planning stage. The construction of a bridge, a new road, and paving and widening the existing road would require stormwater and wetland permitting and mitigation for wetland effects. Effects would include loss of mangroves and saltmarsh from road widening and associated stormwater treatment swales, increased stormwater runoff and pollutants, and potential

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		Road and to the south of Parking Lot 5. This very feasible, low impact and relatively low cost alternative access to Playalinda Beach could provide unimpeded public access to Playalinda Beach, while at the same time satisfying the proposed security perimeter for future Space X launches. Another benefit is that it takes advantage of an already existing physical infrastructure; the shell road along Max Hoeck Creek.		erosion and sedimentation of adjacent surface waters. The Mosquito Lagoon is an Aquatic Preserve, a Class II water body (with more stringent limitations on pollution and additional protections from dredge and fill projects), Outstanding Florida Water, and is part of the Indian River Lagoon. Construction of a bridge and roadway can alter the natural flow of water, fragment habitats, and cause traffic-related wildlife mortality. All environmental effects, permitting, mitigation, and funding requirements would need to be identified to determine the feasibility of this alternative public access.
Anonymous	PublicMeeting-082825-0012-0005	So before the Shuttle, the original road to Playalinda was way south of where it is now and they built a total new road because the Shuttle was going to launch. And so, if SpaceX wants that big-ass zone, build another road to Playalinda. They have got State Road 3 going all the way up there. Build a damn bridge across the Mosquito Lagoon and send them people on down there. You have got beach all the way down.	MT-34	See response MT-34.
Anonymous	Temp-0001-0001	I'm proposing to build up existing Passageway Rd for a Scenic Access Rd to beach during launches, installing gates @ Lot #3 and Bio Lab Rd for launch closures. This is out of the trajectory and allowes us to co-exist w/NASA.	MT-34	See response MT-34.
Brown	PublicMeeting-082825-0005-0001	What I'm proposing to do is put in a new access road over at the existing passageway from Lot 3 to Bio Lab Road. And, it's already an existing road through there. I mean, it's just a rough road over the dikes and things of that nature, but make a beautiful scenic access, you know, and it can be built on the same as -- same as Bio Lab Road is. It could be left rock only to be used when you are doing the launches, okay, and then you can put a gate at Lot 3 and a gate at Bio Lab Road and you can block off that area there, which is in the trajectory. This would still keep you out of the trajectory and be able to	MT-34	See response MT-34.

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		get access to the beach from Lot 3 to the north, okay. And then after the launch period of time is over, you can open those gates back up and use the existing exits. That way you both, you know, you coexist, you know what I mean?		
Brown	PublicMeeting-082825-0005-0002	And there's a solution to this, and that's not -- that wouldn't be an astronomical cost and it wouldn't do anything as far as environmentally because the road already is there. It would be, if you want to leave it rock and leave it like the Bio Lab Road, probably be more environmentally friendly. You wouldn't have the asphalt out through there, you know what I'm saying? If you want to asphalt it, I'd be down with that too. I mean, that's basically all I've got, you know what I mean? Except for, I do have, I would like to See them look at putting buffering walls up at the base and around the -- I know you can't get too close, because the sound would affect the rocket itself. But, you could build a 30-to-40 foot wall, baffled walls around that, the base of that launch pad, and direct -- redirect the sound back out to the ocean and cut way down on this sound that's coming out here. Because, most of your sound is going to be as soon as that thing takes off. You could build it, you may have to build it 40-feet high and 4-foot thick concrete.	MT-34	See response MT-34.
Joyce Downing	TEMP-0011-0001	We are big supporters of the space program but we feel that the best option here to accommodate both the SpaceX Starship-Super Heavy and the citizens of Brevard County is for SpaceX to build an elevated beach access road north of the existing beach access road.	MT-34	See response MT-34.
Reiter	PublicMeeting-082825-0013-0002	And I don't know if anyone has spoken to you guys about what happened in 1980 where there was a road access to Playalinda that they were going to put because of the Shuttle program. And they sort of compromised and moved the road to its current	MT-34	See response MT-34.

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		location, which is a little bit north, so that people would still have access to Playalinda. I would suggest maybe doing something like that and that would get all of the surfers and fishermen sort of off their backs about the Playalinda closures. I don't know what the implications are for building a road, but that would be something to consider for sure.		
Speaker	PublicMeeting-082825-0007-0005	So before the Shuttle, the original road to Playalinda was way south of where it is now and they built a total new road because the Shuttle was going to launch. And so, if SpaceX wants that big-ass zone, build another road to Playalinda. They have got State Road 3 going all the way up there. Build a damn bridge across the Mosquito Lagoon and send them people on down there. You have got beach all the way down.	MT-34	See response MT-34.
Trace Gunsch	FAA-2024-1395-0143-0002	The plan as it currently states shows no effort to mitigate this problem. A possible solution might be to build an alternate beach access road so that the majority of Playalinda Beach could still be usable and only the two unsafe parking lots could be closed. Certainly other mitigation solutions exist and should be explored. We'd like to see this addressed in future discussions of this project.	MT-34	See response MT-34.
South Atlantic Fishery Management Council	FAA-2024-1395-0297-0001	The proposed construction site is in proximity to designated Essential Fish Habitat (EFH) for fishery resources within the jurisdiction of the Council under the fishery management plans for snapper grouper species, shrimp, and coastal migratory pelagic species. This includes the Banana River and the Indian River. This area supports important nursery habitat and is home to over 280 different species (Section 3.8.3). Both waterways have undergone development that has led to a decrease in water flow of upwards of [148 days (https://indianriver.gov/Document Center/Services/Natural Resources/Lagoon/Lagoon-	MT-35	On October 27, 2025, NMFS provided correspondence indicating that no EFH designated via a federal Fishery Management Plan will be directly impacted by the infrastructure improvements of LC-39A. Launch operations from LC-39A may indirectly affect EFH and EFH-HAPC. Tidal rivers and lagoons associated with the Banana River and Indian River Lagoon nearly surround LC-39A, and coastal waters are below the flight paths of the rockets anticipated to use the facility. These rivers and lagoons provide habitat for marine invertebrates that are prey for fishery species; the Mosquito Lagoon is an important shrimp nursery area; and coral and hardbottom habitat serve as nursery and foraging

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		Management-Plan.pdf)], resulting in harmful algal blooms and negatively impacting EFH necessary for juvenile fish nursery areas and larval recruitment. This, combined with further development, including retention and deluge ponds created by SpaceX, will only exacerbate stormwater runoff and flow regime impacts. Additionally, it is likely to negatively impact water quality from contaminants from propellants, heavy metals, fuel, and dust from construction. The EIS details estuarine, groundwater, and water column impacts that will occur. Yet after listing all the damage that the increased launches will likely cause, the EIS considers them non-impactful (Sections 3.8.4.2.4 and 3.9, Table ES-3). The FAA cannot rely on water mixing as a way of dismissing the cumulative impacts that larger and more frequent rocket launches would cause. Any further development along these waterways needs to include a long-term mitigation/restoration plan to improve, enhance, and restore the health of both waterways.		habitats for fishery species in these coastal waters. Conscientious efforts have been made to avoid known irreplaceable habitat areas during landings, including avoiding the Hawaii archipelago and around remote U.S. island territories with identified EFH. Boosters, Starships, fuel and all associated debris that enters the ocean may have an adverse impact on the condition of habitats and water quality within EFH. NMFS requests that any FAA or SpaceX summary reports detailing any project-related marine debris, in shallow or deepwater, be sent to us so that we may better assess any potential impacts to EFH that may occur. NMFS requested the FAA track spaceship marine debris as much as practicable and submit the information to NMFS every two years. If EFH impacts occur from expended items, the FAA should also provide notification to NMFS so that direct and immediate guidance can be provided to best mitigate those effects and to avoid recurrence. NMFS had no further comments regarding the proposed action in the Draft EIS. This information is provided in EIS Appendix B.2 (EFH Assessment).
Fred Goldstein	FAA-2024-1395-0306-0006	The EIS makes the determination of “may affect, not likely to adversely affect” for manatees. To minimize any potential for impact, the FAA should modify the proposed slow speed zones and operations within the northern Banana River as follows: The entire area including the channel should be Slow Speed/Minimum Wake from the Lock to and including the Turning Basin.	MT-36	See responses MT-1 and BR-1.
Fred Goldstein	FAA-2024-1395-0306-0008	Develop a monitoring plan and fund studies to better understand operational impacts on the southeastern beach mouse and Florida scrub-jay.	MT-36	See response MT-36.
Fred Goldstein	FAA-2024-1395-0306-0010	Develop a monitoring plan and fund studies to better understand the operational impacts of sound on the aquatic and terrestrial animals found in the IRL including those that migrate through or nest in the area.	MT-36	See response MT-36.

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Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
Fred Goldstein	FAA-2024-1395-0306-0011	Develop a monitoring plan and fund studies to better understand operational impacts of exhaust plumes on the aquatic and terrestrial environment, plants and animals.	MT-36	See response MT-36.
J. Jack Kennedy Jr.	TEMP-0016-0006	Maintain strong oversight and adaptive management to safeguard wildlife, minimize nighttime impacts, and ensure responsible air and sea closures.	MT-36	See response MT-36.
Kevin Riley	PublicMeeting-082625-0004-0004	I had heard, by the way, that there's going to be some sort of a vibration testing plan set up. Well, I invite them to install their vibration instruments on my house, which is located on the Indian River in Titusville. My house is 110 years old. There are several other, many other historical houses located on my street just far up, up and down Riverside Drive in Titusville. And a really good place to put one of those vibration meters is on the top of a chimney on the houses on my block, there's a whole bunch of them. And I'm sure the local folks would agree, Riverside Drive is a really great place to set up your vibration measuring systems.	MT-36	See response MT-36.
National Parks Conservation Association	FAA-2024-1395-0360-0010	noise impacts and artificial lighting are of particular concern for wildlife species, and the final EIS and BO should include robust quantification of impacts, along with minimization and mitigation measures.	MT-36	See response MT-36.
James O'Brien	FAA-2024-1395-0419-0014	Water/utility safeguards. Stage deluge and process water storage/treatment to avoid any seasonal spikes beyond the ~297 MGY draw and ensure lined ponds and sampling plans are in place prior to first license (as contemplated by the EFH assessment and EIS).	MT-37	See response MT-1. Any necessary sampling or monitoring plans required via consultations (see EIS Appendix B) or required by permitting would be implemented according to those particular requirements.
Joyce Downing	TEMP-0011-0002	In addition any license given to SpaceX to launch the Super Heavy from 39A should first require more sound attenuation. By requiring more sound attenuation there would be a lessening of property damage, hearing loss,	MT-39	See response MT-1. Please note that the FAA does not have a noise mitigation program (funding) similar to airports for commercial space actions.

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		and sleep loss on top of the benefit it would give to wildlife.		
Catherine Riley	TEMP-0017-0001	In addition any license given to SpaceX to launch the Super Heavy from 39A should first require more sound attenuation. By requiring more sound attenuation there would be a lessening of property damage, hearing loss, and sleep loss on top of the benefit it would give to wildlife.	MT-39	See response MT-39.

Notes: BMP = best management practice; CANA = Canaveral National Seashore; CCSFS = Cape Canaveral Space Force Station; CFR = Code of Federal Regulations; EFH = Essential Fish Habitat Assessment; EIS = Environmental Impact Statement; FAA = Federal Aviation Administration; FDEP = Florida Department of Environmental Protection; HAPC = Habitat Areas of Particular Concern; KSC = Kennedy Space Center; LC = Launch Complex; MINWR = Merritt Island National Wildlife Refuge; NASA = National Aeronautics and Space Administration; NEPA = National Environmental Policy Act; NHPA = National Historic Preservation Act; NMFS = National Marine Fisheries Service; NPS = National Park Service; ROD = Record of Decision; SHPO = State Historic Preservation Office; SJRWMD = St. Johns National Wildlife Refuge; SLD 45 = Space Launch Delta 45; SpaceX = Space Exploration Technologies Corp.; U.S. = United States; USSF = United States Space Force; USFWS = United States Fish and Wildlife Service.

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Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
Ross Memphis	FAA-2024-1395-0098-0001	The current Environmental Impact Statement does not adequately analyze cumulative impacts, worst-case scenarios, or mitigation measures needed to protect residents and property. For these reasons, I urge the FAA to deny approval of Starship launches from Florida and require a more thorough review that prioritizes community safety and property protection.	OT-1	"Cumulative impacts" are addressed as "reasonably foreseeable effects" in each section of the EIS. NEPA does not require extended speculation or worst-case scenario analyses. Operational contingencies (e.g., Emergency Response Plans) are in place to address off-nominal events and ensure public health and safety. Each resource section has a subsection titled *BMPs, Mitigation, and Monitoring* that identifies relevant BMPs, mitigations, and monitoring activities under consideration. The final BMPs, mitigations, and monitoring activities to be implemented will be identified in the ROD.
Anonymous	FAA-2024-1395-0106-0004	The EIS currently separates resources (biological, maritime, cultural), but does not evaluate cumulative risk to human populations. Residents, workers, and tourists deserve assurance that repeated high-	OT-2	"Cumulative impacts" are addressed as "reasonably foreseeable effects" in each section of the EIS. See Responses AQ-1 and HS-2 for additional information regarding this comment.

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Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
		frequency launch operations will not degrade air quality or increase long-term toxic exposure.		
Hyun Jung Cho	FAA-2024-1395-0145-0005	Cumulative launch activities: the proposed 44 Starship launches and landings are in addition to Falcon launches, potentially exceeding 1-- launches annually, plus landings. The draft EIS must address combined ecological and socioeconomic stress, not Starship alone.	OT-3	"Cumulative impacts" are addressed as "reasonably foreseeable effects" in each section of the EIS. See EIS Section 3.4 and Section 3.8 for discussions regarding socioeconomics and biological resources, respectively.
Hyun Jung Cho	FAA-2024-1395-0126-0001	Please find a land cover and elevation change study on the Cape Canaveral barrier island (near LC39A, LC39B, SLC40 and 41) we have done and published in 2024 at the following link. https://www.mdpi.com/2072-4292/16/23/4421. The title of the article is Satellite-Based Assessment of Rocket Launch and Coastal Change Impacts on Cape Canaveral Barrier Island, Florida, USA.	OT-4	According to the study referenced, the results indicate vegetation cover changes, including mangrove expansion in wetland areas and the conversion of coastal strands to denser scrubs and hardwood forests, which were likely influenced by mild winters and fire management. While detectable effects of rocket launches on nearby vegetation were observed, they were less severe than those caused by solid rocket motors – the Starship-Super Heavy using liquid propellant. Compounding challenges, such as rising tide levels, beach erosion, and wetland loss, potentially threaten the resilience of launch operations and the surrounding habitats. There is no clear indicator that launch operations have resulted in significant adverse effects to the local environment.
Anonymous	FAA-2024-1395-0106-0005	Federal environmental review is obligated to assess disproportionate impacts on vulnerable populations. Without explicit toxic human health analysis, the EIS fails to determine whether nearby communities—many of which include older adults, children, and lower-income populations—may be disproportionately affected.	OT-5	On January 20, 2025, President Trump issued E.O. 14148, *Initial Rescissions of Harmful Executive Orders and Actions*, rescinding E.O. 14096, *Revitalizing Our Nation's Commitment to Environmental Justice for All* (2023). E.O. 14096 supplemented E.O. 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations* (1994), establishing a government-wide mandate to advance environmental justice. As a result, the FAA no longer evaluates environmental justice as a part of its NEPA reviews. Thus, this EIS does not include any discussion of environmental justice, and environmental justice will not be considered by the FAA in its decision-making. The EIS does, however, address potential children's environmental health and safety risks in EIS Section 3.4.4.

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Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
Burris	PublicMeeting-082825-0006-0002	And for example, they're talking about 44 launches a year, but they're not saying that all the other launches are going to continue, so that alone doubles the amount of launches that we have. And, they're not making it clear that there's an option for a second pad to be open, which would bring roughly 38 launches a year of these major, major spaceships, whatever you want to call them.	OT-6	The FAA is considering the implications of a larger launch vehicle and the proposed launch rate within the context of this EIS. Cumulative effects, to include potential effects associated with other launch activities, are addressed as "reasonably foreseeable effects" in each section of the EIS. Actions included in the reasonably foreseeable effects analyses are discussed in EIS Section 2.2 and subsections within each EIS resource area discussion. While the DAF and FAA actions occur in relatively the same vicinity, they are separate actions with separate utility and purpose and need, and lead by different agencies. NASA operates and maintains its infrastructure in accordance with applicable standards and the KSC Master Plan. In addition to continuing to support NASA's programmatic mission objectives, the Master Plan is designed to maximize the provision of excess capabilities in support of non-NASA access to space. NASA will continue to take these stated priorities into consideration when making NASA property and resources available for commercial use.
Aerospace Industries Association	FAA-2024-1395-0314-0007	While the Draft EIS evaluates infrastructure requirements specific to Starship-Super Heavy at LC-39A, it does not assess how concurrent or overlapping activities within the surrounding complexes, including at CCSFS, may compound infrastructure needs. For example, the Draft EIS projects that 44 annual launches from LC-39A would generate approximately 19,356 truck trips annually (about 53 trucks per day, or 4-5 trucks per hour during a 12-hour period). [Footnote 15: 2.1.4.2 Propellant Generation, Draft Environmental Impact Statement, SpaceX Starship–Super Heavy Launch Vehicle at Launch Complex 39A at the Kennedy Space Center, Merritt Island, Florida, FAA, Aug. 6, 2025, at 2-25.] It also states that "no improvements to transportation routes are anticipated" and proposes no upgrades beyond those identified in NASA's 2024 Final Supplemental	OT-6	See response OT-6.

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Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
		Environmental Assessment for the Roberts Road Operations Area. [Footnote 16: Launch Vehicle Transport and Refurbishment, Draft Environmental Impact Statement, SpaceX Starship–Super Heavy Launch Vehicle at Launch Complex 39A at the Kennedy Space Center, Merritt Island, Florida, FAA, Aug. 6, 2025, at ES-24 and Final Supplemental Environmental Assessment for the Roberts Road SpaceX Operations Area Expansion & Supporting Infrastructure on Kennedy Space Center, NASA, Apr. 2024.] These figures quantify transport needs for LC-39A, but do not incorporate system-wide demands from foreseeable activities across KSC and CCSFS, which could place additional pressures on shared roadways, transportation corridors, and regional utility systems absent planned upgrades or investments.		
Airlines for America	FAA-2024-1395-0340-0005	It is also noteworthy that the EIS does not account for other launch facilities at Cape Canaveral Space Force Station (Cape) and KSC. If fully approved, the combined launch cadence in Florida could reach up to 164 SpaceX launches per year.	OT-6	See response OT-6.
Anonymous	FAA-2024-1395-0281-0031	Absence of cumulative impact analysis incorporating recent FAA approval of up to 120 Falcon 9 launches per year, which likely already approaches or stresses local infrastructure, wildlife, air quality, noise exposures.	OT-6	See response OT-6.
Anonymous	FAA-2024-1395-0281-0032	No explicit analysis of how Starship-Super Heavy launches proposed at Cape Canaveral Space Force Station (if that program proceeds) would compound with the LC-39A operations.	OT-6	See response OT-6.
Anonymous	FAA-2024-1395-0281-0035	How have cumulative impacts been modeled that include the already approved 120 Falcon 9 launches/year, plus potential Cape Canaveral Space Force Station Starship launches, plus LC-39A operations?	OT-6	See response OT-6.

Issue ID: 25	Issue Name: Other			
Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
Anonymous	FAA-2024-1395-0281-0046	The EIS considers the LC-39A site in isolation, without fully accounting for other launch operations and upcoming proposals in the same region.	OT-6	See response OT-6.
Anonymous	FAA-2024-1395-0436-0066	The EIS considers the LC-39A site in isolation, without fully accounting for other launch operations and upcoming proposals in the same region.	OT-6	See response OT-6.
Anonymous	FAA-2024-1395-0436-0069	How have cumulative impacts been modeled that include the already approved 120 Falcon 9 launches/year, plus potential Cape Canaveral Space Force Station Starship launches, plus LC-39A operations?	OT-6	See response OT-6.
Brevard County Commission - District 1 Commissioner Katie Delaney	FAA-2024-1395-0434-0001	Given the scope and seriousness of these concerns, I respectfully urge the FAA to: Conduct a comprehensive review of the cumulative environmental, social, and economic impacts of increasing launch frequencies in Brevard County	OT-6	See response OT-6.
E A H	FAA-2024-1395-0442-0006	Reasonably foreseeable actions/ AFKA Cumulative effects: We respectfully request the FAA update all reasonably foreseeable actions to include recent increases in Falcon 9 cadence and to reflect overall impacts the KSC and surrounding areas across all relevant categories in this EIS.	OT-6	See response OT-6.
Friends of Canaveral, Inc.	FAA-2024-1395-0298-0002	The proposed Starship-Super Heavy launch schedule greatly exceeds what was previously analyzed. The Starship-Super Heavy is the largest spacecraft ever launched at 492 feet tall and 16.5 million pounds of thrust. The proposed launch cadence is 44 launches per year. This compares to the Saturn V rocket which launched 13 times between 1967-1972 with 7.5 million pounds of thrust. It also compares to the Space Shuttle which flew 135 times between 1981-2011 with 6 million pounds of thrust. The DEIS grossly underestimates the reasonably	OT-6	See response OT-6.

Issue ID: 25	Issue Name: Other			
Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
		foreseeable impacts of these proposed launches to Canaveral National Seashore.		
James O'Brien	FAA-2024-1395-0419-0008	Given the scale of launch growth across both KSC and CCSFS, airspace closures that extend far beyond the pad, and overlapping public lands closures, the FAA should not rely on fragmented per site reviews. A robust cumulative analysis is necessary to avoid de facto segmentation of interdependent effects.	OT-6	See response OT-6.
Lewis Kontnik	FAA-2024-1395-0300-0001	The EIS does not attempt to assess the impacts of the Starship/Super Heavy activities in combination with the launches by Falcon (100+/yr), Blue Origin, UAL, Firefly, NASA and other organizations. [Underline: The environment and local community will experience the CUMULATIVE IMPACTS FROM ALL THESE LAUNCHES; THEIR IMPACT MUST BE ASSESSED,MONITORED AND MITIGATED CUMULATIVELY!]	OT-6	See response OT-6.
Marine Resources Council	FAA-2024-1395-0324-0002	The Draft EIS does not fully address cumulative impacts from ongoing spaceport operations with the addition of the proposed Super Heavy operations. Individual launch events may Seem limited in scope, but the combined effects of increased launch frequency, rocket emissions, acoustic shockwaves, debris risk, and expanded infrastructure can compound existing stresses on the Lagoon's fragile ecosystems. Assessing these impacts requires analyzing not only direct launch activities but also supporting operations such as fuel handling, construction, and transportation.	OT-6	See response OT-6.
Marine Resources Council	FAA-2024-1395-0324-0004	Overall, we feel that the EIS does not sufficiently consider the cumulative environmental impacts of multiple high-frequency launches, infrastructure expansion, and ongoing road and public access closures. These factors, when combined, could drastically reduce the ecological integrity of the northern Indian River Lagoon region and undermine years of conservation efforts. This does not even	OT-6	See response OT-6.

Issue ID: 25	Issue Name: Other			
Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
		include effects from vibration on existing infrastructure or sound and vibration disruptions to neighboring communities.		
National Parks Conservation Association	FAA-2024-1395-0360-0008	the DEIS does not adequately analyze how repeated high-decibel events and sonic booms may cumulatively impact human health, historic structures, marine mammals, and cultural resources.	OT-6	See response OT-6.
Richard D. Horner	PublicMeeting-082825-0016-0001	Question one is we're talking about launch complex 39A and 44 launches. It is my understanding that Starship is also flying out of complex 37 at the Cape Canaveral Space Force Station with another set of launches. I've been told up to 70 launches. And so, for your FAA environmental study, is there a cumulative report that will be published prior to launch issuance, launch license issuance?	OT-6	See response OT-6.
U.S. Fish and Wildlife Service (Keith Ramos)	TEMP-0029-0008	The FAA incorporates several older environmental review documents and relies on the fact that this kind of activity is already occurring. However, there is limited discussion on how the increased number of launches plus the increased size of the Super Heavy will impact resources given there are already launches happening. This is a potential analysis gap in cumulative/reasonably foreseeable effects.	OT-6	See response OT-6.
United Launch Alliance, LLC. United Launch Services, LLC	FAA-2024-1395-0376-0029	In Titusville, there is an elevated proportion of residents living with low-income, chronic health conditions (e.g., heart disease, cancer, diabetes, mental health), social burden (e.g., disability, poor housing quality), and environmental burden (e.g., impaired water quality, wildfire risk). The community of Titusville is familiar with environmental stressors—these health issues have resulted in litigation over existing environmental problems. The prospect of more frequent launch and landing operations involving larger vehicles adds another layer to the already challenging environmental landscape. Such activities carry potential consequences	OT-6	See response OT-6.

Issue ID: 25	Issue Name: Other			
Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
		not only for the physical environment but also for the socioeconomic aspects of life in Titusville, including changes to local traffic, job opportunities, and public health. Given the potential for multiple, repeated impacts from noise events associated with the Proposed Action, the burdened communities in Titusville may experience particularly significant increases in irreversible harm. Their unique vulnerabilities require direct and comprehensive analysis in assessing the potential cumulative impacts of the Proposed Action. For these reasons, Starship-Super Heavy launches and landings at LC-37 must be included in the cumulative effects analyzed in the Draft EIS for LC- 39A.		
United Launch Alliance, LLC. United Launch Services, LLC	FAA-2024-1395-0376-0034	As launch rates at CCSFS and KSC increase, the failure to assess additional impacts of the Proposed Action will only compound. To use the FAA's preferred terminology, these impacts are "reasonably foreseeable" and cannot be dismissed simply because the impacts from other launch providers at KSC and CCSFS are also "reasonably foreseeable." Here, Starship-Super Heavy represents a major increase in size, safety risks, and noise and sonic boom generation when compared to other launch providers. As a result, it is not in the same category as other launch providers in terms of reasonably foreseeable impacts both on other launch providers and the community as a whole.	OT-6	See response OT-6.
United Launch Alliance, LLC. United Launch Services, LLC	FAA-2024-1395-0376-0036	It is clear from the Proposed Action that its impacts, when combined with the other proposed actions and related impacts by SpaceX operations, will have a detrimental effect on the operations of other launch providers. Rationalizing that the LC-37 missions and the approved increase in Falcon 9 launches from 50 to 120 (with 34 booster landings) at LC-40 are reasonably foreseeable effects on noise and compatible land uses	OT-6	See response OT-6.

Issue ID: 25	Issue Name: Other			
Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
		as the Draft EIS claims [Footnote 96: Draft EIS, Vol. 1, p. 3-58.] is not an adequate or logical basis for ignoring the reasonably foreseeable impacts of those purported "separate" operations. To use the FAA's terminology, these impacts are "reasonably foreseeable" and cannot be dismissed simply because the impacts from other launch provider operations at KSC and CCSFS are also "reasonably foreseeable."		
United Launch Alliance, LLC. United Launch Services, LLC	FAA-2024-1395-0376-0037	The FAA's Final EIS should evaluate SpaceX's proposed operations at LC-39A in conjunction with SpaceX's proposed operations at LC-37 and LC-40, where SpaceX Seeks to launch an additional 76 Starship-Super Heavy vehicles and 120 Falcon 9s, and land up to 34 Falcon 9 rockets per year, respectively. This cumulative evaluation should include an assessment of NSSL capabilities and the associated vulnerabilities presented by the consolidation of these operations at adjacent launch complexes within a six-mile area. This also potentially increases the threat to other NSSL providers located in the same six-mile area. The Draft EIS is devoid of any such consideration or analysis. Therefore, it fails to identify critical and reasonably foreseeable impacts from the Proposed Action	OT-6	See response OT-6.
Kevin Sackett	TEMP-0010-0001	This program stacked on top of the existing Falcon 9 program and Blue Origin as well as the other that are in various stages of operation will make Cape Canaveral uninhabitable for residents. I am already awakened several times per month by launches. Adding this program will further diminish the quality of life for all residents. The effects of launch and landing noise is understated in your study.	OT-6	See response OT-6.
United Launch Alliance, LLC. United Launch Services, LLC	FAA-2024-1395-0376-0028	The Draft EIS does not include sufficient consideration of cumulative impacts to local communities from continuous and excessive exposure to operations-related noise and vibration, including the launches and	OT-6	See response OT-6.

Issue ID: 25	Issue Name: Other			
Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
		landings at LC-37. Regarding noise and cumulative adverse impacts, launches from two effectively equidistant locations relative to several of the impacted communities should not be treated as distinct projects. The Starship-Super Heavy launches from either launch pad are launches of the same vehicle from the perspective of several communities and the impacts are cumulative. The noise impacts to the community for the Proposed Action are not adequately characterized by considering the 44 launches and 88 landings for LC-39A as separate from the stresses from the simultaneously proposed 76 launches and 152 landings for LC-37. The impacts from all these operations, which would result in noise impacts occurring nearly every day of the year, should be addressed in the Draft EIS.		
Thomas L. Ford	TEMP-0003-0004	I urge the FAA to consider the cumulative effects of sonic booms on residential infrastructure and to prioritize mitigation strategies that protect the well-being of those living near Kennedy Space Center.	OT-7	See response OT-6 regarding Cumulative Effects and response MT-1 regarding Mitigations.
Trey Loughridge	PublicMeeting-082625-0012-0005	And, they don't have any plan yet for how they're going to protect that from a terrorist event.	OT-9	LC-39A is located within the secure area of KSC; LC-39A is therefore covered under KSC's KNPR document 1600.1 "KSC Security Procedural Requirements."
City of Cape Canaveral	FAA-2024-1395-0288-0003	For Cape Canaveral, it is reasonably foreseeable that the effects of frequent Starship launches and landings will combine with the ongoing schedule of Falcon 9 and other FAA-licensed launches at Kennedy Space Center and Cape Canaveral Space Force Station. Because the FAA exercises licensing authority over these activities as well, it cannot properly exclude them from its environmental review because they are inseparable from the overall environmental footprint of commercial space operations at the Kennedy Space Center and Cape Canaveral Space Force Station. The City therefore requests that the FAA strengthen the EIS by more clearly analyzing these reasonably foreseeable effects,	OT-10	See responses OT-1 and OT-6.

Issue ID: 25	Issue Name: Other			
Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
		including the combined impact of Starship operations with other launch activity, and by documenting potential mitigation measures such as scheduling coordination, improved community notification systems, and real-time monitoring. While theta may not directly impose mitigation, identifying and evaluating such measures would provide decision-makers, partner agencies, and the public with a more complete understanding of how significant effects could be avoided or reduced.		
DOI	FAA-2024-1395-0296-0033	Page #: Global Comment: The NPS appreciates the inclusion of CANA on some maps (i.e., ES-1, ES-2, Fig. 3.3- 1) and in some portions of the text (i.e, "CANA is outside the boundaries of KSC and CCSFS" pg. 162), however, CANA is not marked on all maps, particularly those detailing resource impacts. These Figures include but are not limited to: Fig. 3.2-1, Fig. 3.2-16, Fig. 3.2-17, Fig. 3.2-18, Fig. 3.8-6 and Noise Assessment Part 1 pg. 68, "Points of Interest." It is difficult to understand the impacts to CANA if it is not included on the maps and therefore the NPS continues to request that CANA be listed on all maps and Figures.	OT-11	This change has been made as appropriate.
Miami International Airport	FAA-2024-1395-0303-0001	MDAD requests the FAA to assess the potential operational and resulting environmental effects at airports in Florida associated with the reasonably foreseeable actions conducted by FAA to license and implement temporary airspace closures for up to a combined 759 launches and landings.	OT-12	See EIS Section 3.16.4 for information on the *Transportation* section for reasonably foreseeable actions.
Miami International Airport	FAA-2024-1395-0303-0007	The Draft EIS, serving the informational role to inform and assure the public that the FAA has considered environmental effects and concerns as part of their decision making process [Footnote 2: US Supreme Court, Opinion of the Court for the Department of Transportation v. Public Citizen 541 U.S. 752, Jun 7, 2004.], does not appear to assess the reasonably	OT-12	See response OT-12.

Issue ID: 25	Issue Name: Other			
Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
		foreseeable operational and resultant environmental effects (air quality, noise and socio-economics) at airports within Florida associated with the reasonably foreseeable actions FAA would take to close the airspace associated with the SpaceX Starship-Super Heavy Program at KSC LC-39A, SpaceX Starship-Super Heavy Program at the Cape Canaveral Space Force Station (CCSFS) at Space Launch Complex 37 (SLC-37), and grant a license and close airspace to accommodate increased Falcon 9 launches and first-stage booster landings at SLC 40 located at the CCSFS.		
Miami International Airport	FAA-2024-1395-0303-0008	The Draft EIS does not provide adequate information for the public to be assured that the FAA considered all reasonably foreseeable effects caused by up to 759 annual temporary airspace closures that would result in operational effects at multiple airports within Florida. FAA concluded that airspace closures associated with the LC-39A operations in addition to those associated with operations at the LC-37 and CCSFS SLC-40 sites would not be substantial due to the limited number of aircraft affected during the airspace closure. This may be true, assuming a short duration for a single launch or landing operation. However, increases in pollutant emissions, the effects on aircraft noise, and the socio-economic impacts associated with flight cancelations, aircraft holding, and flight diversions for multiple airspace closures conducted for space vehicle launch and landing operations at the CCSFS and KSC facilities could result in a substantial long-term effect.	OT-12	See response OT-12.
Miami International Airport	FAA-2024-1395-0303-0009	Based on the proximity of the launch sites, similarities to potential airspace areas that may be temporarily closed and the expected total number of launches and landings expected to be licensed by the FAA, assessing the potential environmental effects on emissions, aircraft noise and socio-economics at airports expected	OT-12	See response OT-12.

Issue ID: 25	Issue Name: Other			
Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
		to be substantially effected should be included in the Draft EIS to assure the public that the FAA is making a reasonably informed decision when granting operations licenses and conducting an action to temporarily close airspace (e.g., Special Use Airspace [SUA] designations, Temporary Flight Restriction [TFR] airspace designations, Standard Operating Procedure [SOP] changes and Letters of Agreement [LOAs]).		
Miami International Airport	FAA-2024-1395-0303-0010	MDAD recommends FAA assess the potential operational and resulting environmental effects at airports in Florida because of the reasonably foreseeable actions conducted by FAA to license and implement temporary airspace closures for up to a combined 759 annual launches and landings.	OT-12	See response OT-12.
City of Naples Airport Authority	FAA-2024-1395-0307-0002	The Draft EIS, however, appears to evaluate launch activities in isolation rather than assessing their cumulative affect alongside weather events, security restrictions, and growing aviation demand in Florida. In addition, the EIS relies on static 2024 data, which does not adequately reflect the growth trajectory of our state's aviation. We urge the FAA to incorporate forward-looking forecasts (such as the Terminal Area Forecast) and to quantify the economic and operational impacts to the NAS, just as the EIS evaluated tourism-related impacts.	OT-12	See response OT-12.
South Atlantic Fishery Management Council	FAA-2024-1395-0297-0007	the "reasonable foreseeable effects" sections do not mention the impacts on the local fishing economy, water quality, the increase in launches and landings over time, or the impacts of Starship Heavy versus regular rockets. They do not consider the "irreversible commitment of resources" (ES-44) that this project will require. They dismiss the impacts of GHGs released during the construction and operation of the facility as not impactful in the atmosphere and take no accumulation in the atmosphere, water table, or	OT-14	See response OT-6. The Executive Summary is simply a summary of the narrative provided in the full EIS and should not be taken as the comprehensive analysis conducted.

Issue ID: 25	Issue Name: Other			
Commenter	**Submittal Number**	**Comment Excerpt**	**Response ID**	**Response**
		surrounding flora/fauna into account. Dismissing the cumulative effects of the significant increase in launches with a significantly larger rocket sets a dangerous precedent for unlimited growth, launch numbers, and development without consideration of long-term consequences on EFH, fish health, and the health of fisheries. Further analysis should be conducted to determine the full impact of the construction and operation of the new facility before approval. The Council requests that the FAA require further analysis, environmentally friendly construction methods, and mitigation for the surrounding fisheries before moving forward with modifying SpaceX's license.		

Notes BMP = best management practice; DAF = Department of the Air Force; E.O. = Executive Order; EIS = Environmental Impact Statement; FAA = Federal Aviation Administration; KNPR = Kennedy NASA Procedural Requirements; KSC = Kennedy Space Center; LC = Launch Complex; NASA = National Aeronautics and Space Administration; NEPA = National Environmental Policy Act; ROD = Record of Decision.

A.2.3 Draft EIS Public/Agency Notifications

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action is necessary or appropriate in the public interest, for the protection of investors, or otherwise in furtherance of the purposes of the Act. If the Commission takes such action, the Commission will institute proceedings to determine whether the proposed rule change should be approved or disapproved.

IV. Solicitation of Comments

Interested persons are invited to submit written data, views and arguments concerning the foregoing, including whether the proposed rule change is consistent with the Act. Comments may be submitted by any of the following methods:

Electronic Comments

- Use the Commission's internet comment form (*https://www.sec.gov/rules/sro.shtml*); or
- Send an email to *rule-comments@sec.gov*. Please include file number SR–MEMX–2025–23 on the subject line.

Paper Comments

- Send paper comments in triplicate to Secretary, Securities and Exchange Commission, 100 F Street NE, Washington, DC 20549–1090.

All submissions should refer to file number SR–MEMX–2025–23. This file number should be included on the subject line if email is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission's internet website (*https://www.sec.gov/rules/sro.shtml*). Copies of the filing will be available for inspection and copying at the principal office of the Exchange. Do not include personal identifiable information in submissions; you should submit only information that you wish to make available publicly. We may redact in part or withhold entirely from publication submitted material that is obscene or subject to copyright protection.

All submissions should refer to file number SR–MEMX–2025–23 and should be submitted on or before August 27, 2025.

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.[28]

Vanessa A. Countryman,

Secretary.

[FR Doc. 2025–14855 Filed 8–5–25; 8:45 am]

BILLING CODE 8011–01–P

[28] 17 CFR 200.30–3(a)(12).

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

Notice of Availability, Notice of Public Comment Period, Notice of Public Meetings, and Request for Comment on the Draft Environmental Impact Statement for the SpaceX Starship-Super Heavy Vehicle at Launch Complex 39A (LC–39A), at Kennedy Space Center (KSC) in Merritt Island, Florida

AGENCY: Federal Aviation Administration (FAA), Department of Transportation.

ACTION: Notice of availability, public comment period, and public meetings.

SUMMARY: In accordance with the National Environmental Policy Act of 1969, as amended (NEPA) and FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures*, the FAA is announcing the availability of and requesting comment on the Draft Environmental Impact Statement for SpaceX Starship—Super Heavy Vehicle operations at Launch Complex 39A at Kennedy Space Center in Merritt Island, Florida (Draft EIS).

DATES: The FAA will hold four in-person meetings and one virtual meeting. The four in-person public meetings will be held on the following dates:

Tuesday, August 26, 2025: two meetings: 1:00 p.m.–3:00 p.m. and 6:00 p.m.–8:00 p.m. ET; Astronauts Memorial Foundation, Center for Space Education, Conference Center, State Road 405, Kennedy Space Center, FL 32899

Thursday, August 28, 2025; two meetings: 1:00 p.m.–3:00 p.m. and 6:00 p.m.–8:00 p.m. ET; Radisson Conference Center, Grande Caribbean, 8701 Astronaut Boulevard, Cape Canaveral, FL 32920

One virtual public meeting will be held on the following date and time:

Wednesday, September 3, 2025: 6:00 p.m.–8:00 p.m. ET

Interested parties must register to join the virtual public meeting. Registration is now available at the link in **ADDRESSES**.

The public comment period for the Draft EIS will close on September 22, 2025.

ADDRESSES: The Draft EIS is available for public review at *https://www.faa.gov/space/stakeholder_engagement/spacex_starship_ksc*. The Draft EIS has been posted and comments will be received through the Federal E-Rulemaking Portal: *https://www.regulations.gov*. Search for "FAA–2024–1395" to retrieve the docket and follow the instructions to submit a comment.

The FAA invites interested parties to submit comments on the Draft EIS. Public comments can be submitted electronically to *www.regulations.gov* under Docket No. FAA–2024–1395, by postal mail to Ms. Eva Long, FAA Environmental Protection Specialist, c/o Leidos, 2877 Guardian Lane Virginia Beach, VA 23452 or delivered in written or oral form at a public meeting. Oral public comments during the in-person and virtual public meetings will be limited to three minutes. Members of the public will have three minutes to provide oral comments to a court reporter who will transcribe the comment for the record.

- *Virtual Public Meeting Registration Link: https://us02web.zoom.us/webinar/register/WN_2aotlSQERXCHC5yfjOvm5A.*

Dial-in phone number: 888–788–0099 (Toll Free), Webinar ID: 892 9206 9685, Passcode: 095859.

SUPPLEMENTARY INFORMATION:

The Draft EIS analyzes:

- Up to 44 Starship—Super Heavy launches per year;
- Up to 44 Super Heavy landings per year, to include landings at LC–39A, landing on a droneship in the Atlantic Ocean, or expending in the Atlantic Ocean;
- Up to 44 Starship landings per year, to include landings at LC–39A, landing on a droneship in the Atlantic Ocean, or soft-water or hard-water landing with expending or recovery in the Atlantic Ocean, Pacific Ocean, or Indian Ocean;
- Construction of launch, landing, and other associated infrastructure at and in proximity to LC–39A.

The FAA will present a pre-recorded presentation during the first half hour of the public meetings.

If any accommodation for the public meetings is needed (such as translation services), please submit a request by August 14, 2025, to *SpaceXStarship39AEIS@icf.com*.

Before including your address, phone number, email address, or other personal identifying information in your comment, be advised that your entire comment—including your personal identifying information—may be made publicly available at any time. While you can ask the FAA in your comment to withhold from public review your personal identifying information, the FAA cannot guarantee that it will be able to do so. All comments received during the comment period will be given equal weight and be taken into

consideration in the preparation of the Final EIS.

Issued in Washington, DC, on August 4, 2025.

Stacey Molinich Zee,

Manager, Operations Support Branch.

[FR Doc. 2025–14888 Filed 8–5–25; 8:45 am]

BILLING CODE 4910–13–P

DEPARTMENT OF TRANSPORTATION

Maritime Administration

[Docket No. MARAD–2025–0367]

Request Notice: Use of Foreign-Built Small Passenger Vessel in United States Coastwise Trade, M/V SUNBELLE

AGENCY: Maritime Administration, DOT.

ACTION: Notice and request for comments.

SUMMARY: The Secretary of Transportation, as represented by the Maritime Administration (MARAD), is authorized to make determinations regarding the coastwise use of foreign built; certain U.S. built; and U.S. and foreign rebuilt vessels that solely carry no more than twelve passengers for hire. MARAD has received such a determination request and is publishing this notice to solicit comments to assist with determining whether the proposed use of the vessel set forth in the request would have an adverse effect on U.S. vessel builders or U.S. coastwise trade businesses that use U.S.-built vessels in those businesses. Information about the requestor's vessel, including a description of the proposed service, is in the **SUPPLEMENTARY INFORMATION** section below.

DATES: Submit comments on or before September 5, 2025.

ADDRESSES: You may submit comments identified by DOT Docket Number MARAD–2025–0367 by any one of the following methods:

- *Federal eRulemaking Portal:* Go to *https://www.regulations.gov*. Search MARAD–2025–0367 and follow the instructions for submitting comments.
- *Mail or Hand Delivery:* Docket Management Facility is in the West Building, Ground Floor of the U.S. Department of Transportation. The Docket Management Facility location address is U.S. Department of Transportation, MARAD–2025–0367, 1200 New Jersey Avenue SE, West Building, Room W12–140, Washington, DC 20590, between 9 a.m. and 5 p.m., Monday through Friday, except on Federal holidays.

Note: If you mail or hand-deliver your comments, we recommend that you include your name and a mailing address, an email address, or a telephone number in the body of your document so that we can contact you if we have questions regarding your submission.

Instructions: All submissions received must include the agency name and specific docket number. All comments received will be posted without change to the docket at *www.regulations.gov*, including any personal information provided. For detailed instructions on submitting comments, or to submit comments that are confidential in nature, see the section entitled Public Participation.

FOR FURTHER INFORMATION CONTACT: Patricia Hagerty, U.S. Department of Transportation, Maritime Administration, 1200 New Jersey Avenue SE, Mail Stop 2, MAR–620, Washington, DC 20590. Telephone: (202) 366–5400. Email: *smallvessels@dot.gov*.

SUPPLEMENTARY INFORMATION: Pursuant to 46 U.S.C. 12121(b), the U.S. Coast Guard may issue a certificate of documentation with a coastwise trade endorsement for eligible, small passenger vessels authorized to carry no more than 12 passengers for hire if MARAD, after notice and an opportunity for public comment, determines the use of the small passenger vessel in the coastwise trade will not adversely affect United States vessel builders or the coastwise trade business of any person that employs vessels built in the United States in that business.[1]

MARAD has received an eligibility determination request. Further details about the requester's vessel and its proposed operations may be found in the determination request posted in the DOT docket as MARAD–2025–0367 at *https://www.regulations.gov*. Interested parties may comment on the undue adverse effect this action may have on U.S. vessel builders or coastwise trade businesses in the U.S. that employ U.S.-built vessels in those businesses. Comments should refer to the vessel name, state the commenter's interest in the request, and demonstrate, with supporting documentation, the undue adverse effect on U.S. vessel builders and coastwise trade businesses.

[1] The U.S. Coast Guard and MARAD have authority under 46 U.S.C. 12121(b) through the Secretary of the Department of Homeland Security and the Secretary of the Department of Transportation, respectively.

Public Participation

How do I submit comments?

Please submit comments, including the attachments, following the instructions provided under the above heading entitled **ADDRESSES**. It may take a few hours or even days for comments to be reflected on the docket. Comments must be written in English. Provide concise comments and attach additional documents as necessary. There is no limit on the length of the attachments.

Where do I go to read public comments, and find supporting information?

The docket online is located at *https://www.regulations.gov*, keyword search MARAD–2025–0367 or visit the Docket Management Facility (see **ADDRESSES** for hours of operation). Please periodically check the Docket for new submissions and supporting material.

Will my comments be made available to the public?

Yes. Your entire comment, including your personal identifying information, will be made publicly available.

May I submit comments confidentially?

You may request that MARAD treat your comments as commercially confidential by submitting them to *SmallVessels@dot.gov*. Include in the email subject heading "Contains Confidential Commercial Information" or "Contains CCI" and state in your submission, with specificity, the basis for any such confidential treatment highlighting the CCI portions. If possible, please provide a summary of your submission that can be made available to the public.

If MARAD receives a Freedom of Information Act (FOIA) request for the information, procedures described in the Department's FOIA regulation at 49 CFR 7.29 will be followed. Only information that is ultimately determined to be confidential under those procedures will be exempt from disclosure under FOIA.

Privacy Act

Anyone can search the electronic form of all comments received into any of our dockets by the name of the individual submitting the comment (or signing the comment, if submitted on behalf of an association, business, labor union, etc.). For information on DOT's compliance with the Privacy Act, please visit *https://www.transportation.gov/privacy*.

(Authority: 49 CFR 1.93(a), 46 U.S.C. 12121)

total burden hours, total number of respondents, or burden-hours per respondent) and are low-cost for both the respondents and the Federal Government:

- The collections are non-controversial and do not raise issues of concern to other Federal agencies;
- Any collection is targeted to the solicitation of opinions from respondents who have experience with the program or may have experience with the program in the near future; and
- With the exception of information needed to provide remuneration for participants of focus groups and cognitive laboratory studies, personally identifiable information (PII) is collected only to the extent necessary and is not retained.

If these conditions are not met, EIA will submit an information collection request to OMB for approval through the normal PRA process. The solicitation of feedback on Agency Service Delivery includes topics such as: timeliness of publishing, understanding of questions and terminology used in EIA products, perceptions on data confidentiality and security, appropriateness and relevancy of information published, accuracy of information, courtesy, efficiency of service delivery, and resolution of issues with service delivery. Responses are assessed to plan and inform efforts to improve or maintain the quality of service offered to the public. Advances in technology and service delivery systems in the private sector, have increased the public's expectations of the Government's customer service promise. The Federal Government has a responsibility to streamline and make more efficient its service delivery to better serve the public.

(5) *Annual Estimated Number of Respondents:* 80,600;

(6) *Annual Estimated Number of Total Responses:* 80,600;

(7) *Annual Estimated Number of Burden Hours:* 8,600;

(8) *Annual Estimated Reporting and Recordkeeping Cost Burden:* $816,914 (8,600 annual burden hours multiplied by $94.99 per hour). EIA estimates that respondents will have no additional costs associated with the surveys other than the burden hours and the maintenance of the information during the normal course of business.

Comments are invited on whether or not: (a) The proposed collection of information is necessary for the proper performance of agency functions, including whether the information will have a practical utility; (b) EIA's estimate of the burden of the proposed collection of information, including the validity of the methodology and assumptions used, is accurate; (c) EIA can improve the quality, utility, and clarity of the information it will collect; and (d) EIA can minimize the burden of the collection of information on respondents, such as automated collection techniques or other forms of information technology.

Statutory Authority: Executive Order 12,862 (1993) and Executive Order 13,571 (2011).

Signed in Washington, DC, on August 6, 2025.

Samson A. Adeshiyan,

Director, Office of Statistical Methods and Research, U.S. Energy Information Administration.

[FR Doc. 2025–15093 Filed 8–7–25; 8:45 am]

BILLING CODE 6450–01–P

ENVIRONMENTAL PROTECTION AGENCY

[FRL OP–OFA–190]

Environmental Impact Statements; Notice of Availability

Responsible Agency: Office of Federal Activities, General Information 202–564–5632 or *https://www.epa.gov/nepa.*

Weekly receipt of Environmental Impact Statements (EIS)

Filed July 28, 2025 10 a.m. EST Through August 4, 2025 10 a.m. EST

Pursuant to CEQ Guidance on 42 U.S.C. 4332.

Notice: Section 309(a) of the Clean Air Act requires that EPA make public its comments on EISs issued by other Federal agencies. EPA's comment letters on EISs are available at: *https://cdxapps.epa.gov/cdx-enepa-II/public/action/eis/search.*

EIS No. 20250103, Draft, BLM, OR, Grassy Mountain Mine, Comment Period Ends: 09/08/2025, Contact: Caryn Burri 541–473–3144.

EIS No. 20250104, Draft, FHWA, NC, Proposed Carolina Bays Parkway Extension, Comment Period Ends: 09/22/2025, Contact: Clarence W. Coleman, P.E. 919–630–6096.

EIS No. 20250105, Draft Supplement, USAF, AR, Foreign Military Sales F–35 Pilot Training Center at Ebbing Air National Guard Base, Arkansas, Comment Period Ends: 09/25/2025, Contact: Austin Naranjo 210–652–4400.

EIS No. 20250106, Final Supplement, FERC, TX, Rio Grande LNG, LLC's et al. Rio Grande LNG Terminal and Rio Bravo Pipeline Project, Review Period Ends: 09/08/2025, Contact: Office of External Affairs 866–208–3372.

EIS No. 20250107, Final Supplement, FERC, TX, Texas LNG Brownsville LLC re Texas LNG Project, Review Period Ends: 09/08/2025, Contact: Office of External Affairs 866–208–3372.

EIS No. 20250109, Final, NRC, IL, Generic Environmental Impact Statement for License Renewal of Nuclear Plants Supplement 63 Regarding License Renewal for Clinton Power Station, Unit 1, Review Period Ends: 09/08/2025, Contact: Ashley Waldron 301–415–7317.

EIS No. 20250110, Draft, FAA, FL, SpaceX Starship-Super Heavy Launch Vehicle at Launch Complex 39A at the Kennedy Space Center, Merritt Island, Florida, Comment Period Ends: 09/22/2025, Contact: Eva Long 321–759–2188.

EIS No. 20250111, Final, Caltrans, CA, Albion River Bridge Project, Review Period Ends: 09/08/2025, Contact: Rachelle Estrada 707–441–5930.

Dated: August 4, 2025.

Nancy Abrams,

Associate Director, Office of Federal Activities.

[FR Doc. 2025–15103 Filed 8–7–25; 8:45 am]

BILLING CODE 6560–50–P

EXPORT-IMPORT BANK

[Public Notice: 2025–3004]

Agency Information Collection Activities: Submission to the Office of Management and Budget for Review and Approval; Comment Request; EIB 92–30, Report of Premiums Payable for Financial Institutions Only

AGENCY: Export-Import Bank of the United States.

ACTION: Submission for OMB review and comments request.

SUMMARY: The Export-Import Bank of the United States (EXIM), as part of its continuing effort to reduce paperwork and respondent burden, invites the general public and other Federal Agencies to comment on the proposed information collection, as required by the Paperwork Reduction Act of 1995.

DATES: Comments must be received on or before September 8, 2025 to be assured of consideration.

ADDRESSES: Comments may be submitted electronically on *WWW.REGULATIONS.GOV* (EIB 92–30) or by mail to Office of Information and Regulatory Affairs, 725 17th Street NW, Washington, DC 20038. Attn: OMB 3048–0021.

FOR FURTHER INFORMATION CONTACT: To request additional information, please contact Edward Coppola,

Subject: Notice of SpaceX Starship-Super Heavy Draft EIS Comment Period and Public Meetings

The Draft Environmental Impact Statement (EIS) for SpaceX's proposed licensing and operation of the SpaceX Starship-Super Heavy vehicle at Launch Complex 39A (LC-39A) at Kennedy Space Center in Merritt Island, Florida, is open for public comment. The FAA will also hold public meetings.

The Draft EIS analyzes:

- Up to 44 Starship-Super Heavy launches per year
- Up to 44 Super Heavy landings per year, to include landings at LC-39A, landing on a droneship in the Atlantic Ocean, or expending in the Atlantic Ocean
- Up to 44 Starship landings per year, to include landings at LC-39A, landing on a droneship in the Atlantic Ocean, or soft-water or hard-water landing with expending or recovery in the Atlantic Ocean, Pacific Ocean, or Indian Ocean
- Construction of launch, landing, and other associated infrastructure at and in proximity to LC-39A

The FAA invites people to submit comments on the Draft EIS through Sept. 22, 2025.

The FAA will hold public meetings on the Draft EIS on:

- **Tuesday, Aug. 26, 2025;** two meetings: 1-3 p.m. and 6-8 p.m. ET at the Astronauts Memorial Foundation, Center for Space Education, Conference Center, State Road 405, Kennedy Space Center, FL 32899
- **Thursday, Aug. 28, 2025;** two meetings: 1-3 p.m. and 6-8 p.m. ET at the Radisson Conference Center, Grande Caribbean, 8701 Astronaut Boulevard, Cape Canaveral, FL 32920
- **Virtually on Wednesday, Sept. 3, 2025**; 6-8 p.m. ET
  Registration Link: https://us02web.zoom.us/webinar/register/WN_2aotISQERXCHC5yJjOvm5A

Dial-in phone number: 888-788-0099 (Toll Free), Webinar ID: 892 9206 9685, Passcode: 095859

At the ***in-person meetings***, the FAA will provide a pre-recorded presentation during the first half hour. The meetings will then transition to an open-house information-station format where the FAA and contractors will provide information about the project. During the open house portion of the meeting, attendees can provide up to a three-minute verbal comment to a court reporter who will transcribe it for the record. Attendees also can submit written comments at the commenting stations.

At the ***virtual meeting***, the FAA will provide a pre-recorded presentation during the first half hour. Attendees can provide oral comments for up to three minutes afterward. A moderator will facilitate the verbal comments.

If the FAA has to reschedule any meetings due to inclement weather or technology issues, the agency will post information on the project website (listed below). The back-up virtual public meeting date is Sept. 4, 2025 from 6–8 p.m. ET. Should a rescheduling occur, the FAA will provide updated virtual meeting links on the project website.

More information on the public meetings is at: https://www.faa.gov/space/stakeholder_engagement/spacex_starship_ksc. If any accommodation for the public meetings is needed (such as translation services), please submit a request by Aug. 14, 2025 to: SpaceXStarship39AEIS@icf.com.

News media should contact the FAA Press Office at pressoffice@faa.gov.

Thank you,
The FAA SpaceX Starship 39A Project Team

Environmental Impact Statement for SpaceX Starship-Super Heavy Launch Vehicle

AT LAUNCH COMPLEX 39A AT THE KENNEDY SPACE CENTER, MERRITT ISLAND, FLORIDA

Public Meetings: You Are Invited!

The Federal Aviation Administration (FAA) is announcing the availability of the Draft Environmental Impact Statement (EIS) for SpaceX's proposed licensing and operation of the SpaceX Starship-Super Heavy Vehicle at Launch Complex 39A (LC-39A) at Kennedy Space Center (KSC) in Merritt Island, Florida and its intent to hold public meetings.

The Draft EIS analyzes:

- Up to 44 Starship-Super Heavy launches per year
- Up to 44 Super Heavy landings per year, to include landings at LC-39A, landing on a droneship in the Atlantic Ocean, or expending in the Atlantic Ocean
- Up to 44 Starship landings per year, to include landings at LC-39A, landing on a droneship in the Atlantic Ocean, or soft-water or hard-water landing with expending or recovery in the Atlantic Ocean, Pacific Ocean, or Indian Ocean
- Construction of launch, landing, and other associated infrastructure at and in proximity to LC-39A

The FAA invites interested parties to submit comments on the Draft EIS. Public comments can be submitted electronically to www.regulations.gov under Docket No. FAA-2024-1395, by postal mail, or orally or in writing during a public meeting. **The public comment period for the Draft EIS will close on September 22, 2025.**

The four in-person public meetings will be held on the following dates:

- **Tuesday, August 26, 2025; two meetings:**
  1:00 PM–3:00 PM & 6:00 PM–8:00 PM ET
  Astronauts Memorial Foundation Center for Space Education, Conference Center, State Road 405 Kennedy Space Center, FL 32899
- **Thursday, August 28, 2025; two meetings:**
  1:00 PM–3:00 PM & 6:00 PM–8:00 PM ET
  Radisson Conference Center, Grande Caribbean, 8701 Astronaut Boulevard, Cape Canaveral, FL 32920

One virtual public meeting will be held on the following date:

- **Wednesday, September 3, 2025; 6:00 PM–8:00 PM ET**
  - Please note that registration is required for the virtual meeting.
  - Registration Link: https://us02web.zoom.us/webinar/register/WN_2aotlSQERXCHC5yJjOvm5A
  - Dial-in phone number: 888-788-0099 (Toll Free), Webinar ID: 892 9206 9685, Passcode: 095859

The FAA will provide a pre-recorded presentation during the first half hour of the public meetings. Members of the public will have three minutes to provide oral comments to a court reporter who will transcribe the comment for the record.

If any accommodation for the public meetings is needed (such as translation services), please submit a request by August 14, 2025 to the project email address: SpaceXStarship39AEIS@icf.com.

To submit comments electronically, please visit www.regulations.gov Docket ID: FAA-2024-1395.

Comments by mail should be sent to:
Eva Long, FAA Environmental Protection Specialist
c/o Leidos
2877 Guardian Lane
Virginia Beach, VA 23452

Media inquiries should be directed to:
FAA Press Office: pressoffice@faa.gov

Before including your address, phone number, e-mail address, or other personal identifying information in your comment, be advised that your entire comment—including your personal identifying information—may be made publicly available at any time. While you can ask the FAA in your comment to withhold from public review your personal identifying information, the FAA cannot guarantee that it will be able to do so. All comments received during the comment period will be given equal weight and be taken into consideration in the preparation of the Final EIS.

In the event the meetings have to be rescheduled due to inclement weather or technology issues, the FAA will post information on the project website (listed below).

For more information, please visit the FAA's project website at: www.faa.gov/space/stakeholder_engagement/spacex_starship_ksc.

Julianne Love se enfoca en la terapia miofuncional para promover la salud oral
Página 8

Editorial
Opinions and perspectives nation and worldwide
-19-
Agosto 2025
(321) 724-6077

Comenzando el nuevo año escolar practicando la amabilidad con los demás

Por Renee Ruffin-Price
Para AL DIA TODAY

En unos días, nuestros jóvenes regresarán a la escuela; algunos de ellos pueden sentirse ansiosos por comenzar un nuevo grado o por repetir un año escolar; es recomendable tener una conversación abierta con ellos sobre maneras de iniciar el año con una actitud positiva.

Académicamente, sin importar el grado en el que estén, usted puede ayudar a su hijo a repasar conceptos que aprendió durante el año escolar anterior a través de un sitio web gratuito llamado KhanAcademy.org; en cuanto a sus sentimientos sobre cómo interactuará con sus amigos, con otros estudiantes que regresan, así como con los estudiantes nuevos o el personal escolar, usted puede guiarlo sobre maneras de mostrar amabilidad hacia los demás.

Como se mencionó en un artículo anterior, mostrar amabilidad hacia los demás tiene un impacto positivo tanto en quien la recibe como en quien la da; puede motivar a su hijo a dar un cumplido sincero a un amigo o a un estudiante que sea nuevo en su escuela; dejar que alguien pase delante de él en la fila; agradecer al personal de limpieza y de la cafetería por todo lo que hacen; o entregar una nota de agradecimiento al conductor del autobús o a un maestro.

Incluso si sus amigos y otros estudiantes están interrumpiendo la clase, recuérdele que debe resistir la tentación de unirse y no dejarse llevar por la "multitud"; si ve o escucha que un estudiante está siendo tratado de manera poco amable, puede invitarlo a acercarse a donde él está para que no se sienta solo.

Artículo enviado a Al Día Today para la edición de agosto, el 28 de julio de 2025, por Renee' Ruffin-Price, Defensora Comunitaria de los Niños.

Renee' Ruffin-Price, Community Advocate for Children

Starting the new school year practicing kindness to others

In a few days, our young people will be returning to school. Some of them may be feeling anxious about starting school in a new grade or about repeating a grade level. Consider having an open conversation with them about ways to start the year off on a positive note. Academically, regardless of what grade they will be in, you can help your child review concepts they learned throughout the past school year, via a free website called KhanAcademy.org. Regarding your child's feelings about how they will interact with their friends, the other returning students plus any new students or school staff, you can provide them with guidance on ways to show kindness to others. As was mentioned in a previous article, showing kindness to others has a positive impact on both the recipient as well as the giver. Here are some simple suggestions to share with your child or children: give a sincere compliment to a friend or maybe even to a student who is new to your school; let someone go ahead of you in line; thank the janitor and the cafeteria staff for all they do in the school; give the bus driver or a teacher a "thank you" note; even if your friends and the other students are disrupting the class, resist the urge to join in by not following behind the "crowd"; and if you see or hear a student being treated unkind, call them over to where you are so they don't feel so alone.

Article submitted to Al Dia Today for the August issue, on July 28, 2025, by Renee' Ruffin-Price, Community Advocate for Children

AL DIA Today.com
The Latin Voice of Central Florida

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Embraer plans $90M expansion at airport

Company seeks to boost business-jet production

Rick Neale
Florida Today
USA TODAY NETWORK – FLORIDA

Two Embraer executive jets are parked outside the company's customer center at Melbourne Orlando International Airport. EMBRAER EXECUTIVE JETS

Embraer officials are planning a roughly $90 million expansion at Melbourne Orlando International Airport to boost the Brazilian aviation giant's business-jet production capacity, company officials revealed this week during a second-quarter earnings call.

"The $90 million investment in our Melbourne facility is aimed at expanding the Phenom 100EX and Phenom 300E production, in addition to enlarging the pre-flight prep area for the Praetor 500 and Praetor 600. It also includes the addition of a paint preparation hangar facility that can accommodate both Phenoms and Praetors," Embraer spokesperson Lauren Merlino said in an email.

Embraer has generated more than 1,000 jobs and invested more than $155 million on the Space Coast since 2008 during four development phases off Apollo Boulevard at the Melbourne airport. This is the site of the corporation's North American business-jet-building campus.

Embraer's Phenom 100EV and Phenom 300E, which can carry up to 11 passengers and crew, are built "nose to tail" in Melbourne.

Merlino said the planned expansion "will support the growth of high-skilled aviation jobs and reinforces our commitment to the local community."

During the earnings call on Tuesday, Aug. 5, officials announced Embraer reached the highest second-quarter revenue in company history: $1.8 billion.

What's more, Embraer's aircraft and services backlog reached a new all-time high of $29.7 billion, including $7.4 billion in the executive aviation division.

Embraer CEO expresses concern over Trump's tariffs

Embraer's President and CEO Francisco Gomes Neto said Embraer is willing to invest $500 million across the United States, which could create about 2,500 jobs. Example: In late June, Embraer opened a new maintenance, repair and overhaul facility at Perot Field Alliance Airport Fort Worth in Texas. The company will invest more than $70 million to expand that facility.

However, Neto said, "U.S. tariffs continue to be a major concern to our business."

"We continue to believe in and advocate firmly for a return to the zero-tariff rule for the global aerospace industry, which was the status quo over the previous 45-plus years," Neto said of President Donald Trump's tariffs imposed on Brazil.

In a related development on Florida's Space Coast, Embraer spinoff Eve Air Mobility has announced plans to roll out full-scale prototype flight testing of its first electric vertical takeoff and landing vehicle later this year or in early 2026. These aircraft are electric-powered eight-rotor "air taxis." Eve's U.S. headquarters are co-located at the Melbourne airport inside Embraer's Engineering and Technology Center.

"Embraer's continued growth is a testament to its commitment to our community and MLB's continued commitment to Embraer," Melissa Naughton, the airport's assistant director of business development and marketing, said in an email.

"MLB prides itself on making sure our tenants' operations can expand and it is always exciting to see a tenant grow," Naughton said.

Rick Neale is a Space Reporter at FLORIDA TODAY. Contact Neale at Rneale@floridatoday.com . Twitter/X: @RickNealel

Bellaby

Continued from Page 3A

• Space Reporter Rick Neale wrote about an expansion planned by Embraer at Melbourne Orlando International Airport, and Space Reporter Brooke Edwards detailed what's behind the Trump administration's plan to put a nuclear reactor on the moon.

Let's end by returning back to schools. Be sure to check out Mental Health Reporter Jennifer Torres' story about the anxiety this return to the school year often drums up in students and parents. She details warning signs and what you can do to make it easier.

High School Sports Reporter Chasite Banks and Photographer Craig Bailey have been busy reporting on our student athletes who are now deep in training for the fall sports season. Be sure to check out her stories and Craig's photo galleries.

Thank you for reading us, subscribing to FLORIDA TODAY and supporting local journalism. Executive Editor Mara Bellaby can be reached at mbellaby@floridatoday.com.

Environmental Impact Statement for SpaceX Starship-Super Heavy Launch Vehicle
AT LAUNCH COMPLEX 39A AT THE KENNEDY SPACE CENTER, MERRITT ISLAND, FLORIDA

Draft Environmental Impact Statement Now Available

The Federal Aviation Administration (FAA) is announcing the availability of the Draft Environmental Impact Statement (EIS) for SpaceX's proposed licensing and operation of the SpaceX Starship-Super Heavy Vehicle at Launch Complex 39A (LC-39A) at Kennedy Space Center (KSC) in Merritt Island, Florida and its intent to hold public meetings.

The Draft EIS analyzes:

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- Up to 44 Starship landings per year, to include landings at LC-39A, landing on a droneship in the Atlantic Ocean, or soft-water or hard-water landing with expending or recovery in the Atlantic Ocean, Pacific Ocean, or Indian Ocean
- Construction of launch, landing, and other associated infrastructure at and in proximity to LC-39A

The Draft EIS is available for public review at: https://www.faa.gov/space/stakeholder_engagement/spacex_starship_ksc.

The FAA invites interested parties to submit comments on the Draft EIS. The public comment period for the Draft EIS will close on September 22, 2025. Instructions on how to submit comments can be found on the FAA webpage at the address listed to the left.

The FAA will host four in-person public meetings and one virtual meeting on the following dates:

Tuesday, August 26, 2025; two meetings:
1:00 PM - 3:00 PM and 6:00 PM - 8:00 PM ET; Astronauts Memorial Foundation, Center for Space Education, Conference Center, State Road 405, Kennedy Space Center, FL 32899

Thursday, August 28, 2025; two meetings:
1:00 PM - 3:00 PM and 6:00 PM - 8:00 PM ET; Radisson Conference Center, Grande Caribbean, 8701 Astronaut Boulevard, Cape Canaveral, FL 32920

Wednesday, September 3, 2025; 6:00 PM - 8:00 PM ET (virtual)
Registration link: https://us02web.zoom.us/webinar/register/WN_2aotlSQERXCHC5yJjOvm5A; Dial-in phone number: 888-788-0099 (Toll Free), Webinar ID: 892 9206 9685, Passcode: 095859

Please note, registration is required for the virtual meeting.

The FAA will provide a pre-recorded presentation during the first half hour of the public meetings. Members of the public will have three minutes to provide oral comments to a court reporter who will transcribe the comment for the record.

More information on the public meetings can be found at: https://www.faa.gov/space/stakeholder_engagement/spacex_starship_ksc.

If any accommodation for the public meetings is needed (such as translation services), please submit a request by August 14, 2025 to SpaceXStarship39AEIS@icf.com.

Some ousted trans airmen denied retirement benefits

Cybele Mayes-Osterman
USA TODAY

WASHINGTON – The Air Force yanked retirement pay for some transgender airmen forced out of the military by the Trump administration after telling them their applications were approved.

The Pentagon moved to purge transgender service members from the ranks of the military earlier this year. They were offered a "separation" payment – the amount would be doubled if they left voluntarily, according to a February memo from department leadership.

The Air Force said in May that transgender airmen who had served between 15 and 18 years could withdraw their request for voluntary separation pay and instead apply for early retirement.

Around a dozen who applied for early retirement were told "prematurely" that they were approved, according to an Air Force statement. Then the Air Force backtracked.

"After careful consideration of the individual applications, I am disapproving all" of them, Brian Scarlett, the Air Force's acting assistant secretary for manpower and reserve affairs, wrote in a memo first obtained by Reuters.

"It feels like a betrayal. I'm devastated. I'm heartbroken," said Logan Ireland, an Air Force master sergeant who will have 15 years of service in November, including deployments to Afghanistan and Qatar and multiple overseas tours.

Ireland said he already had retirement orders in hand and a retirement date of Dec. 1. His parents had bought tickets to travel to Joint Base Pearl Harbor-Hickam in Hawaii where he is currently stationed, for his retirement party.

"I did everything correct," Ireland told USA TODAY. "I was just months away from leaving the military with the dignity and respect that I thought I would be given."

The Air Force said those airmen will now be "afforded the opportunity" to apply for voluntary separation. Logan said he received a new deadline of Aug. 15 to apply for the payment. The original deadline to apply has long passed – June 6 for regular Air Force and Space Force members, and July 7 for Air Force Reserve members.

The Air Force yanked retirement benefits from transgender veterans forced out by the Trump administration with 15 to 18 years of service. DOMINIC GWINN/MIDDLE EAST IMAGES/AFP VIA GETTY IMAGES

Ireland said he's not sure what the value of voluntary separation will be, but he no longer has a pension. Some state and school benefits will also be off the table, he said.

"We planned everything around me being retired," he said. "I'm navigating getting out of the military with a lot of unknowns."

In the Navy, ousted transgender members with less than 18 years of service cannot get retirement, according to guidance issued in May. According to the Army's guidance, trans members with 15 to 18 years "can request" early retirement "for consideration."

The Pentagon has said military commanders should initiate medical record reviews of service members they believe have gender dysphoria and have not stepped forward to resign.

President Donald Trump signed an executive order days after he was sworn into office in January stating transgender service members do not "satisfy the rigorous standards necessary for military service."

ANALYSIS

Trump's 401(k) order offers crypto

But it also comes with higher fees and more risk

Suzanne McGee and Isla Binnie
REUTERS

NEW YORK – The new White House order directing regulators to expand access to alternative investments in 401(k) plans, like crypto or privately owned companies, adds a new layer of risk to the retirement portfolios for ordinary investors that they may not fully understand, investment professionals say.

"This is brand new; none of it has been stress-tested yet" in a market shock or long-term selloff, said Christopher Bailey, director of retirement, at Cerulli Associates, an asset management research firm. "There are liquidity concerns, issues around fees, among others."

While industry advocates and the Trump administration say investments in private equity, crypto or privately held companies like ChatGPT developer OpenAI or Elon Musk's SpaceX hold the promise of greater returns, critics say the investments are inherently riskier, lack the same disclosures and carry higher fees than traditional retirement plans.

"I don't think people are talking enough about the potential for higher fees," said Philitsa Hanson, head of product, equity and fund administration, Allvue Systems, a software and solutions provider for private asset managers. The executive order, she said, "raises more questions than answers. Someone will need to be very thoughtful about how these types of assets can be incorporated" into 401(k) plans.

Private equity and other alternative asset funds have increasingly been raising capital from wealthy individuals but are traditionally designed for institutional investors and typically include layers of fees. Private equity, for instance, has long had the "2 and 20" structure: managers collect a 2% overall fee, as well as 20% of any gains. In contrast, the mutual funds that today make up the lion's share of 401(k) plan assets offer fees that average a mere 0.26%, according to the Investment Company Institute.

Blackstone President and Chief Operating Officer Jon Gray, right, recently told analysts that private assets are more appropriate for younger investors that have a longer investing horizon than for someone nearing retirement.
NATHAN HOWARD/REUTERS FILE

Jason Kephart, an analyst at Morningstar, said the fees for some alternative investments aren't clearly spelled out; some even have to be deciphered from footnotes.

Dmitriy Katsnelson, deputy chief investment officer at Wealthspire Advisors, which manages $30 billion for affluent and high net worth individuals and families, notes that if the executive order triggers a rapid and significant change in the menu of investment plans open to investors, that would reverse the trend of the last few decades.

"It's been all about cutting fees, doing no harm," Katsnelson said. "It's going to take a while for people to come up with a framework to make this work and think about the risks."

Alternative asset managers will likely need to come up with new products with lower fees, greater liquidity and more transparency if they want to tap into the trillions of dollars and 90 million investors in employer-sponsored retirement plans.

Critics say investing 401(k) plans in crypto would be inherently riskier, lack the same disclosures and carry higher fees than traditional retirement plans.
MARIO TAMA/GETTY IMAGES FILE

Jason Kephart, an analyst at Morningstar, said the fees for some alternative investments aren't clearly spelled out; some even have to be deciphered from footnotes.

They "might be even underrepresenting the actual cost to the end investor, and I have a hard time seeing how plan sponsors are going to get comfortable with that," he said.

"I think there is going to be more light shed on all these fees and exactly where they are and make it transparent."

Under the current system, investors can also monitor fluctuations in their portfolio's performance on a daily basis and understand precisely what is contributing to those results, Hanson said. That won't be so easy for investments that aren't traded on open exchanges.

"Private equity, private assets are the opposite," said Allvue's Hanson. "You're asking systems designed for daily trades to support illiquid and sometimes manually priced assets. There's a fundamental mismatch there."

That creates an obligation on the part of asset managers and plan sponsors to increase their outreach and education efforts, suggests Cerulli's Bailey. A typical retirement fund investor "is not sitting there thinking about optimizing their portfolio" and considering the impact of adding private assets to the mix on their risk or potential return, he said.

Blackstone President and Chief Operating Officer Jon Gray recently told analysts that private assets are more appropriate for younger investors that have a longer investing horizon than for someone nearing retirement.

One test case for the legal risks of putting retirement nest eggs in private markets has played out at chipmaker Intel, where employees brought a lawsuit over two retirement plans that included investments in hedge funds, private equity and commodities.

An appeals court finally dismissed the complaint after seven years of court battles this year but lawyers at Debevoise & Plimpton said that asset managers and plan sponsors generally don't have the resources to manage multiyear litigation. Regulators will have to give the industry some legal protection from investor lawsuits to make good on Trump's plan, they said.

Trump blocking funds for EV charger project

Trevor Hughes
USA TODAY

DENVER – A $7.5 billion Biden-era plan to build a massive network of electric vehicle chargers has crashed to a halt after installing fewer than 400 chargers.

President Donald Trump's administration early this year blocked spending on the project, which aimed to put potentially thousands of chargers near major highways – at gas stations, rest stops and other sites no more than 50 miles apart. A coalition of Democrat-led states and nonprofits has sued to get the funding restarted.

"Halting the funding sets us all back," Kentucky Gov. Andy Beshear, a Democrat, said in a Aug. 6 statement announcing the state was joining the lawsuit. "Electric and hybrid vehicles are no longer the technology of the future. They're here now, and this technology is only becoming more important to our families and businesses."

Trump, who has long been hostile toward government-mandated EV purchases, has kept the charger funding on hold for months, industry experts said.

The pause has no effect on privately funded charging sites, like those built by Tesla. Trump also had a public falling-out with Tesla CEO Elon Musk and in a July social media post said he opposes "ridiculous" efforts to make people drive EVs.

The publicly funded plan aimed to make it easier for people to drive EVs on long road trips. It was funded by the 2021 Infrastructure Investment and Jobs Act and reflected the Biden administration's efforts to push people away from gasoline-powered vehicles.

Federal statistics show there are about 3.5 million EVs registered in the United States, out of 287 million vehicles. That number has been growing rapidly in part due to a generous federal tax incentive that ends in September.

Industry experts say a major obstacle to widespread EV adoption is the lack of charging options away from home, and many would-be purchasers have cited what's known as "range anxiety" in their reluctance to switch.

The Biden-era plan aimed to put potentially thousands of chargers near major highways – at gas stations, rest stops and other sites no more than 50 miles apart.
JUSTIN SULLIVAN/GETTY IMAGES

However, federal statistics also show that 92.5% of all trips Americans take – aside from commercial delivery trucks – are less than 25 miles, well within the range of every EV on the market today.

A federal Government Accountability Office report issued earlier this year noted that as of May, there were about 77,000 publicly available charging stations. Most are a slower, older style. In comparison, there are about 150,000 gas stations nationwide, according to the National Association of Convenience Stores. The GAO raised significant questions about the success of the project, noting that only 384 charging stations funded by the infrastructure act had been built by April.

Significant delays were caused by the complicated structure of necessary approvals, the GAO said. The report also indicated the process would likely become more efficient over time as state-level administrators learned how to manage the installations better.

"It was a federal program administered by 50 different state agencies and they all had different rules," said Ryan McKinnon, a spokesperson for the Charge Ahead Partnership, a coalition that lobbies for EV infrastructure.

The real deal on Tropical Storm Erin

WeatherTiger
Ryan Truchelut

A forecast on Tropical Storm Erin in the Atlantic Ocean on Aug. 13.
PROVIDED BY NATIONAL HURRICANE CENTER

Sometimes an open Atlantic storm is just an open Atlantic storm.

In fact, that's true the majority of the time. Of the approximately 1,300 named storms that have developed in the Atlantic, Gulf, or Caribbean since 1900, about 400 went on to make landfall as a tropical storm or hurricane somewhere along the continental U.S. coastline.

That leaves about two-thirds of storms as someone else's problem, or my personal preference, no one's problem.

Point being, while the average season has three to five tropical storm and one to two hurricane landfalls in the continental U.S., a given storm is less likely than not to strike land.

That's particularly true for cyclones developing in the Tropical Atlantic east of the Lesser Antilles, where formation is common in August and September but only around 1-in-5 of those systems will ever be a U.S. threat.

Tropical Storm Erin is not going to beat those odds, despite what you may have read this week from purveyors of unnecessary drama such as Uncle Frank's Xtreme Weather Basement, Florida Clout Chaserz, or Gulf Coast Hurricane/Monster Jam First ALERT.

Where is Erin now and where is the future hurricane heading?

As of late Wednesday morning, Erin is about 1,200 miles east of the northern Leeward Islands, moving a touch south of due west at 15 to 20 miles per hour. Erin's maximum sustained winds remain near 45 mph, little changed since it developed on Monday.

Thus far, tepid sea surface temperatures and nearby dry air have kept Erin's development prospects under arrest like a Charles Entertainment Cheese accused of financial fraud. However, while thunderstorm activity associated with Erin remains limited today, as its well-organized circulation moves west-northwest into warmer waters over the next day or two, low shear and sufficient moisture should allow it to start strengthening in earnest.

By Saturday, Erin will likely be the first hurricane of the 2025 season as it passes a few hundred miles north of the northeastern Lesser Antilles, and may well reach Category 3 strength on Sunday or Monday as it moves north of Puerto Rico.

These islands will not experience the worst of Erin, but could see intermittent bands of gusty showers between Saturday and Monday, along with high seas.

Only a 5% chance that a hurricane Erin becomes a U.S. threat, but East Coast could see rip currents

Erin's path next week looks increasingly clear.

As the storm reaches the western edge of a ridge of high pressure in the central Atlantic, it will turn north toward a dip in the jet stream over eastern Canada starting on Monday, pass near or west of Bermuda around Aug. 20 as a major hurricane, then accelerate northeast.

There is a strong model consensus for this steering pattern, which should keep Erin's center well east of the U.S. East Coast.

This isn't a situation where Erin could "miss" the trough that will bend its path northward; even if the storm is farther south and west than predicted in the medium term, it'll turn north once the ridge to its north weakens.

That means the already slim chances of Erin posing eventual U.S. landfall risks have narrowed further.

At the start of the week, I put those odds at a little over 10%; now, with the steering pattern forecast firming up, I'd say there's a 5% (or lower) possibility of Erin threatening the U.S. next week.

While we don't know exactly how far offshore Erin will pass and there is uncertainty in precisely what the steering winds will be in 7 days, forecasts of the jet stream pattern are reliable at this range and show no sign of major changes afoot.

Thus, Erin will cause heavy surf and rip currents along the Eastern Seaboard starting mid-next week, but little in the way of rain, surge, or wind.

When a real threat looms: WeatherTiger has your back

Elsewhere, the tropics are mostly quiet. A disturbance crossing the Yucatan Peninsula will spread some moisture from northern Mexico to central Texas Friday and Saturday, though development is improbable before it moves inland.

Otherwise, I'd guess that one more tropical wave may develop at some point over the next 12 days in the central or eastern tropical Atlantic based on generally favorable environmental conditions, but there's nothing specific to watch at this time.

Assuming Erin behaves itself, it's a well-timed reminder that the historical peak of hurricane season is just beginning.

Over 80% of U.S. major hurricane landfalls occur between Aug. 15 and Oct. 15, so the ripple of Erin agita should prompt you to ensure your hurricane kit and evacuation plans are in place.

Erin also gives you a valuable opportunity to evaluate how your sources of hurricane information frame their reporting. If your sources were running around like Mike the Headless Chicken (a real 1940s carnival act who survived decapitation and could perform basic functions like eating, breathing, comparing tropical waves to Irma, and posting the 384-hour GFS "for awareness") hyping up a nonexistent Florida threat from Erin, I'd recommend you find less emotional, more scientific sources for the rest of the year.

Hurricane season is bad enough without gross exaggeration for clicks.

I view my most important job as making sure you have the lead time necessary to be optimally prepared for the surge, wind, rain, and tornado hazards from tropical cyclones, especially high-impact major storms.

The flip side is that for my heads-up to mean anything, there can't be five false alarms for every actual threat.

I don't show model runs from the world of pure imagination beyond a week out because they are just scary, and I have no interest in scaring you.

Hurricane season is a marathon made up of discrete sprints. Discretion is the better part of valor, and though Erin should be a formidable hurricane next week, it isn't cause for concern. We don't need to do that to ourselves, even as we keep watching the skies.

Dr. Ryan Truchelut is chief meteorologist at WeatherTiger, a Tallahassee company providing forensic meteorology expert witness services and agricultural and hurricane forecasting subscriptions. Visit weathertiger.com to learn more. Email Truchelut at ryan@weathertiger.com.

Environmental Impact Statement for SpaceX Starship-Super Heavy Launch Vehicle
AT LAUNCH COMPLEX 39A AT THE KENNEDY SPACE CENTER, MERRITT ISLAND, FLORIDA

Draft Environmental Impact Statement Now Available

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The Draft EIS analyzes:

- Up to 44 Starship-Super Heavy launches per year
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The FAA invites interested parties to submit comments on the Draft EIS. The public comment period for the Draft EIS will close on September 22, 2025. Instructions on how to submit comments can be found on the FAA webpage at the address listed to the left.

The FAA will host four in-person public meetings and one virtual meeting on the following dates:

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1:00 PM - 3:00 PM and 6:00 PM - 8:00 PM ET; Astronauts Memorial Foundation, Center for Space Education, Conference Center, State Road 405, Kennedy Space Center, FL 32899

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Wednesday, September 3, 2025; 6:00 PM - 8:00 PM ET (virtual)
Registration link: https://us02web.zoom.us/webinar/register/WN_2aotISQERXCHC5yJjOvm5A; Dial-in phone number: 888-788-0099 (Toll Free), Webinar ID: 892 9206 9685, Passcode: 095859

Please note, registration is required for the virtual meeting.

The FAA will provide a pre-recorded presentation during the first half hour of the public meetings. Members of the public will have three minutes to provide oral comments to a court reporter who will transcribe the comment for the record.

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If any accommodation for the public meetings is needed (such as translation services), please submit a request by August 14, 2025 to SpaceXStarship39AEIS@icf.com.

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Hurricane center says Atlantic system likely to become tropical depression

By Richard Tribou
Orlando Sentinel

The National Hurricane Center on Sunday said a system in the eastern Atlantic could become a tropical depression soon while continuing to keep tabs on one other Atlantic system.

As of the NHC's 2 p.m. tropical outlook, the system dubbed Invest 97 continued to show signs of organization with expanded showers and thunderstorms as it was about 100 miles east of the Cape Verde Islands.

"Only a small increase in the organization could lead to the formation of a tropical depression before the low moves near or across the Cape Verde Islands Sunday night and on Monday," forecasters said. "Even if a tropical depression does not form over the next day or so, environmental conditions appear very conducive for later development, and a tropical depression or tropical storm is likely to form by the middle to latter portion of this week while moving west-northwestward at 15 to 20 mph across the eastern and central tropical Atlantic."

The tropical outlook as of 2 p.m. Sunday. **NHC**

Either way, the system is forecast to bring heavy rainfall across the Cape Verde Islands through today.

The NHC gave it a 50% chance to develop in the next two days and 90% in the next seven.

The second system, a trough of low pressure located in the central Atlantic, has disorganized showers and thunderstorms and diminished chances for organization.

"Some gradual development is possible during the middle part of this week while the system moves northward over the central Atlantic," forecasters said.

The NHC gave it a 10% chance to develop in the next two days and 20% in the next seven.

The next names on the 2025 Atlantic hurricane season list are Erin and Fernand.

The season so far has produced four tropical storms with the most recent, Tropical Storm Dexter, having moved through the North Atlantic this week where it was no threat to land.

The National Oceanic and Atmospheric Administration this week updated its season forecast now calling for 13-18 named storms for the year, of which five to nine would grow into hurricanes. Two to five of those would develop into major hurricanes of Category 3 strength or higher.

The height of hurricane season runs from mid-August into October.

The entire six-month season runs June 1 to Nov. 30.

Vulcan

from Page 3

missions to SpaceX, although ULA is supposed to be given a pair of SpaceX's assigned task orders in return at a later date.

Still, the delay in Vulcan meant ULA was not poised to cash in on the new round of national security missions that were announced earlier this year. The NSSL Phase 3 program so far has favored SpaceX for its biggest missions, known as Lane 2 missions, with $5.9 billion of an overall $13.7 billion pie to be assigned over the next five years. ULA is still set to get $5.3 billion of that while newcomer Blue Origin could get $2.4 billion once its New Glenn rocket is certified.

But ULA still has another 24 national security missions to fly from Phase 2 before it gets to its share of the more than 54 overall missions expected to be awarded through 2029. ULA has been shut out so far from a second lane of the Phase 3 contracts that is designed to bring in more companies to fly less demanding missions.

Lane 1 is expected to call for up to 30 missions to be awarded through 2029, worth another $5.6 billion. So far, all of those orders have gone to SpaceX.

The Vulcan delays have meant ULA only managed five launches in 2024 after shooting off just three in 2023. The plan, though, is to ramp up Vulcan's pace along with the 13 remaining Atlas V rockets so ULA is hitting between 20-25 launches a year.

"When you're a launch company, you get paid when you launch. Go figure," Bruno said. "So as we came to the end of Vulcan development, and we had to get the rocket working, and we had an anomaly to resolve, there were fewer flights, as you guys are well aware. So revenues were much lower than our normal historical average."

A brighter future

The company used to be the sole provider for national security missions and had its busiest year in 2009 when it flew 16 times. It's revamping a pad at Vandenberg Space Force Base in California while also finishing work on a second vertical integration facility in Cape Canaveral so it could be processing three missions at once before the end of the year.

"As we go forward now we're fine, and so the revenues will be more in line with what we have had in the past, and then higher next year as we jump to that 20-to-25 rate," he said.

For 2024, Bruno said he expects to end the year with nine missions. That would include a second Space Force launch, USSF-87, which would fly from Cape Canaveral.

It also could see the first of 38 contracted Vulcan launches for Amazon's Project Kuiper constellation as well as several more of the remaining six Atlas V launches Amazon purchased.

Other customers that could fly on Vulcan in the next year include Sierra Space's Dream Chaser spacecraft, which is slated to make its debut launch on a cargo mission to the International Space Station.

And six of the remaining Atlas V rockets are set aside for Boeing Starliner, which could be in line to launch twice in 2026.

Bruno said the total backlog for government and commercial missions is about 100, looking five years out.

"For this year, '25, we're fully booked up. And '26 it's pretty crowded. Someone would have to drop out of line in order for us to make a slot for someone else," he said. "As we go into '27 it's really the same story. So we're in that good problem to have of having more customers wanting to ride on this rocket than is easy to accommodate."

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East Park Community Development District

313 Campus Street• Celebration, Florida 34747 •
Telephone: (407) 566-1935 •

February 28, 2025
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Re: NOTICE OF PUBLIC HEARING TO CONSIDER THE ADOPTION OF THE FISCAL YEAR 2026 BUDGET; NOTICE OF PUBLIC HEARING TO CONSIDER THE IMPOSITION OF OPERATIONS AND MAINTENANCE SPECIAL ASSESSMENTS, ADOPTION OF AN ASSESSMENT ROLL, AND THE LEVY, COLLECTION, AND ENFORCEMENT OF THE SAME; NOTICE OF PUBLIC HEARING ON THE ADOPTION OF AN OPERATION AND MAINTENANCE ASSESSMENT METHODOLOGY; AND NOTICE OF REGULAR BOARD OF SUPERVISORS' MEETING.

Dear Legal Department:

Please publish the enclosed notice on Monday, **March 10, 2025**, sending your proof of publication and invoice to the following:

Charge to Account No. #CU00103713
East Park CDD
Inframark
313 Campus Street
Celebration Fl 34747

If you have any questions, please contact me at Melinda.Gallo@inframark.com

Sincerely,
Melinda Gallo
District Administrative Assistant II

EAST PARK COMMUNITY DEVELOPMENT DISTRICT

NOTICE OF PUBLIC HEARING TO CONSIDER THE ADOPTION OF THE FISCAL YEAR 2026 BUDGET; NOTICE OF PUBLIC HEARING TO CONSIDER THE IMPOSITION OF OPERATIONS AND MAINTENANCE SPECIAL ASSESSMENTS, ADOPTION OF AN ASSESSMENT ROLL, AND THE LEVY, COLLECTION, AND ENFORCEMENT OF THE SAME; NOTICE OF PUBLIC HEARING ON THE ADOPTION OF AN OPERATION AND MAINTENANCE ASSESSMENT METHODOLOGY; AND NOTICE OF REGULAR BOARD OF SUPERVISORS' MEETING.

Upcoming Public Hearings, and Regular Meeting

The Board of Supervisors ("**Board**") for the East Park Community Development District ("**District**") will hold the following public hearings and a regular meeting:

DATE:	August 25, 2025
TIME:	5:30 p.m.
LOCATION:	Sunblaze Elementary School 9101 Randal Park Boulevard, Orlando, Florida 32832

The first public hearing is being held pursuant to Chapter 190, Florida Statutes, to receive public comment and objections on the District's proposed operation and maintenance assessment methodology ("**O&M Methodology**"). The second public hearing is being held pursuant to Chapter 190, Florida Statutes, to receive public comment and objections on the District's proposed budget ("**Proposed Budget**") for the fiscal year beginning October 1, 2025, and ending September 30, 2026 ("**Fiscal Year 2026**"). The next public hearing is being held pursuant to Chapters 190, 197 and/or 170, Florida Statutes, to consider (a) imposition of operations and maintenance special assessments ("**O&M Assessments**") upon the lands located within the District, to fund the Proposed Budget for Fiscal Year 2026, (b) to consider the adoption of an assessment roll, and (c) to provide for the levy, collection, and enforcement of O&M Assessments. At the conclusion of the hearings, the Board will, by resolution, adopt an O&M Assessment Methodology, a budget, and levy O&M Assessments as finally approved by the Board. A Board meeting of the District will also be held where the Board may consider any other District business.

Description of Assessments

The District imposes O&M Assessments on benefited property within the District for the purpose of funding the District's general administrative, operations, and maintenance budget. Pursuant to Section 170.07, Florida Statutes, a description of the services to be funded by the O&M Assessments, and the properties to be improved and benefitted from the O&M Assessments, are all set forth in the O&M Assessment Methodology. A geographic depiction of the property potentially subject to the proposed O&M Assessments is identified in the map attached hereto. The table below shows the schedule of the proposed O&M Assessments, which are subject to change at the hearing and will be allocated based on the O&M Methodology, which is available for inspection at the hearings and at the District Office (as defined herein):

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
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[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

* *Includes collection costs / early payment discounts*

The proposed O&M Assessments as stated include collection costs and/or early payment discounts, which Orange County ("**County**") may impose on assessments that are collected on the County tax bill. Moreover, pursuant to Section 197.3632(4), *Florida Statutes*, the lien amount shall serve as the "maximum rate" authorized by law for O&M Assessments, such that no assessment hearing shall be held or notice provided in future years unless the assessments are proposed to be increased or another criterion within Section 197.3632(4), *Florida Statutes*, is met. Note that the O&M Assessments do not include any debt service assessments previously levied by the District that are due to be collected for Fiscal Year 2026.

For Fiscal Year 2026, the District intends to have the County tax collector collect the assessments imposed on certain developed property. It is important to pay your assessment because failure to pay will cause a tax certificate to be issued against the property which may result in loss of title, or for direct billed assessments, may result in a foreclosure action, which also may result in a loss of title. The District's decision to collect assessments on the tax roll or by direct billing does not preclude the District from later electing to collect these or other assessments in a different manner at a future time.

Additional Provisions

The public hearings and meeting are open to the public and will be conducted in accordance with the provisions of Florida law. A copy of the Proposed Budget, proposed assessment roll, and the agenda for the hearings and meeting may be obtained at the offices of the District Manager, located at Inframark, IMS, 313 Campus Street, Celebrations, Florida 34747, Ph: (407) 566-1935 ("**District Office**"), during normal business hours. The public hearings and meeting may be continued to a date, time, and place to be specified on the record at the hearings or meeting. There may be occasions when staff or board members may participate by speaker telephone.

Any person requiring special accommodations at this meeting because of a disability or physical impairment should contact the District Manager's Office at least three (3) business days prior to the meeting. If you are hearing or speech impaired, please contact the Florida Relay Service by dialing 7-1-1, or 1-800-955-8771 (TTY) / 1-800-955-8770 (Voice), for assistance in contacting the District Office.

Please note that all affected property owners have the right to appear at the public hearings and meeting and may also file written objections with the District Manager's Office within twenty days of publication of this notice. Each person who decides to appeal any decision made by the Board with respect to any matter considered at the public hearings or meeting is advised that person will need a record of proceedings and that accordingly, the person may need to ensure that a verbatim record of the proceedings is made, including the testimony and evidence upon which such appeal is to be based.

Michael Perez,
District Manager

1 killed in U.S. Steel plant explosion

Pennsylvania facility at center of lawsuits over air pollution

By Marc Levy, Michael Casey and Patrick Whittle
Associated Press

An explosion at a U.S. Steel plant near Pittsburgh left one person dead and dozens injured or trapped under the rubble Monday, with emergency workers trying to rescue victims, officials said.

The explosion sent black smoke spiraling into the midday sky in the Monongahela Valley, a region of the state synonymous with steel for more than a century. An Allegheny County emergency services spokesperson, Kasey Reigner, said one person died in the explosion and two were believed to be unaccounted for. Multiple other people were treated for injuries.

Allegheny County Emergency Services said a fire at the plant started at 10:51 a.m. The explosion sent a shock through the community and led to officials asking residents to stay away from the scene so emergency workers could respond.

"It felt like thunder," Zachary Buday, a construction worker near the scene, told WTAE-TV. "Shook the scaffold, shook my chest and shook the building, and then when we saw the dark smoke coming up from the steel mill and put two and two together, and it's like something bad happened."

Dozens were injured, and the county sent 15 ambulances, on top of the ambulances supplied by local emergency response agencies, Reigner said.

Clairton resident Amy Sowers, 49, who was sitting on her porch less than a mile from the plant, felt her house shake.

"I could see smoke from my driveway," she said. "We heard ambulances and fire trucks from every direction."

Sowers, who grew up in Clairton, has seen several incidents at the plant over the years. Despite health concerns, Sowers said, many residents cannot afford to leave.

A maintenance worker was killed in an explosion at the plant in September 2009. In July 2010, another explosion injured 14 employees and six contractors.

"Lives were lost again," Sowers said. "How many more lives are going to have to be lost until something happens?"

The plant, a massive industrial facility along the Monongahela River south of Pittsburgh, is considered the largest coking operation in North America and is one of four major U.S. Steel plants in Pennsylvania that employ several thousand people.

The plant converts coal to coke, a key component in the steel-making process. Coal is baked in special ovens for hours at high temperatures to remove impurities that could otherwise weaken steel. The process creates what's known as coke gas — made up of a lethal mix of methane, carbon dioxide and carbon monoxide.

Democratic Sen. John Fetterman, who formerly was the mayor of nearby Braddock, called the explosion "absolutely tragic" and vowed to support steelworkers in the aftermath.

The Allegheny County Health Department said it is monitoring the explosion and advised residents within 1 mile of the plant to remain indoors, close all windows and doors, set air-conditioning systems to recirculate. It said its monitors have not detected levels of soot or sulfur dioxide above federal standards.

According to the company, the plant produces 4.3 million tons of coke annually and has approximately 1,400 workers.

In recent years, the Clairton plant has been dogged by concerns about pollution. In 2019, it agreed to settle a 2017 lawsuit for $8.5 million. Under the settlement, the company agreed to spend $6.5 million to reduce soot emissions and noxious odors from the Clairton coke-making facility.

The company faced other lawsuits over pollution from the Clairton facility, including ones accusing the company of violating clean-air laws after a fire in December 2018caused $40 million in damage to pollution control equipment and led to repeated releases of sulfur dioxide. Sulfur dioxide is a colorless, pungent byproduct of fossil fuel combustion that can make it hard to breathe.

In the wake of the fire, Allegheny County warned residents to limit outdoor activities, with residents saying for weeks afterward that the air felt acidic, smelled like rotten eggs and was hard to breathe.

In February, a problem with a battery at the plant led to a "buildup of combustible material" that ignited, causing an audible "boom," the Allegheny County Health Department said. Two workers who got material in their eyes received first-aid treatment at a hospital but were not seriously injured.

Last year, the company agreed to spend $19.5 million on equipment upgrades and $5 million on local clean-air efforts and programs as part of settling a federal lawsuit filed by Clean Air Council and PennEnvironment and the Allegheny County Health Department.

The fire at the Clairton plant knocked out pollution controls at its Mon Valley plants, but U.S. Steel continued to run them anyway, environmental groups said.

The lawsuits accused the steel producer of more than 12,000 violations of its air pollution permits.

David Masur, executive director of PennEnvironment, an environmental group that has sued U.S. Steel over pollution, said there needed to be "a full, independent investigation into the causes of this latest catastrophe and a re-evaluation as to whether the Clairton plant is fit to keep operating."

In June, U.S. Steel and Nippon Steel announced that they had finalized a "historic partnership," a deal that gives the U.S. government a say in some matters and comes a year and a half after the Japanese company first proposed and shareholders agreed to its nearly $15 billion buyout of the iconic American steelmaker.

A police vehicle is seen near a U.S. Steel plant in Clairton, Pennsylvania, after an explosion Monday. REBECCA DROKE/GETTY-AFP

Orlando Sentinel
OPINION

GUEST COLUMNIST

Florida is quietly abandoning green schools — but families are stepping up

Michele Drucker

The Florida Green School Designation Program was once a low-cost, high-impact initiative that helped schools reduce waste, cut energy costs and engage students in sustainability. But now the program is being permanently discontinued, according to Christian Reeves of the Florida Department of Environmental Protection's Division of State Lands.

"Florida has fulfilled its obligations under a 2017 EPA grant to run the program," Reeves said. "Current EPA grant monies are being returned. Florida will discontinue both the Florida Green Hotels and Green Schools designation programs."

This quiet dismantling follows the departure of the program's sole staff member. Last summer, the website disappeared only to reappear after a PTA inquiry about the program, but designation applications from schools were left unanswered. The designation was also a key step for schools hoping to earn national recognition through the U.S. Department of Education's Green Ribbon program.

That's a loss — because the program worked. In Miami-Dade County, one seventh grader's bus air quality study led to a campaign that helped the district secure over 100 electric school buses. The student discovered that bus emissions were 10 times higher than the Environmental Protection Agency's recommended air quality standards. Research shows that eliminating diesel bus exhaust can improve reading scores by as much as 7%.

The school district went on to pass a 100% clean energy resolution, hire an efficiency officer and launch a food share cart and composting program. Rooftop solar advocacy followed, saving schools money on double-digit energy cost increases while connecting students to clean energy career paths.

These aren't just environmental wins — they're public health, academic and financial wins too. And they all started with student and parent leadership.

In response, the Florida PTA is launching the Florida Green Schools PTA/PTSA, a new statewide platform to keep this work alive. We'll provide tools for families to advocate for greener, healthier, more resilient schools — because when the state walks away, Florida's families step up.

Gov. Ron DeSantis says he wants to prepare students for the real world. But if his administration refuses to support the programs that protect children's health, strengthen community engagement and build environmental literacy, then that promise rings hollow.

If the state won't lead, Florida's families will.

Michele Drucker is environmental chair for the Miami-Dade County Council PTA/PTSA and former environmental chair for the Florida PTA. This opinion piece was distributed by The Invading Sea website (www.theinvadingsea.com), which publishes news and commentary on climate change and other environmental issues affecting Florida.

The Florida PTA is launching the Florida Green Schools PTA/PTSA, a new statewide platform to keep this work alive.

NATIONAL VIEWPOINT

Putin has the upper hand in meeting with Trump on Ukraine

Trudy Rubin

Once again, a willfully blind President Donald Trump is walking into a trap set by Russian leader Vladimir Putin — by agreeing to meet him for a summit in Alaska on Friday.

No matter how many times Putin insults the president and ignores his calls for a total ceasefire in Ukraine, Trump returns for more humiliation. He refuses to recognize that Putin has no interest in peace.

After a few weeks of bluster about his "disappointment" with Putin, Trump has once again ignored a deadline he set (Aug. 8) for imposing secondary sanctions on Moscow.

Instead, he has agreed to reward the Russian leader with a summit before Putin even agrees to a temporary ceasefire. And so far, Trump is excluding President Volodymyr Zelenskyy from the meeting. Shades of 1938 indeed.

Never mind that Putin still insists Ukraine has no right to exist, recently declaring that "all of Ukraine is ours." Never mind that this war criminal told Trump's hopelessly naive emissary, Steve Witkoff, that he won't accept less than full Ukrainian capitulation.

And never mind that Moscow pundits are joking that, just as Russia is "restoring" Ukraine to Russian control, it should retake Alaska, which a Russian tsar sold to America in 1867.

Once again, Trump appears ready — no, eager — to play into Putin's hands.

Just holding the meeting will be a diplomatic victory for Putin, who wants to emerge from isolation by the West for his brutal invasion. The summit will halt what seemed to be mounting momentum in Europe, in the U.S. Senate, and even in the White House for penalizing Putin over his continuation of the war.

Putin will be trying to deflect any further U.S. implementation of secondary sanctions on Russian oil exports or banks, or seizure of frozen Russian assets.

The White House has clumsily proposed sanctions on India for massive purchases of cheap Russian oil, but not yet imposed them on Russia's biggest customer, China.

Putin gains more time to continue his brutal air assault on Ukraine. If past is prologue, the Russian leader will tantalize Trump with offers of fantasy business deals, while fooling him with alleged concessions that actually aid Moscow.

One such proposal is a partial ceasefire limited to the air war. This may sound good given Russia's missile and drone assault on Ukrainian civilian sites. But it is a poison pill for Ukraine.

Kyiv's main strength lies in the air, as its drones slow down Russia's creeping ground advances, achieved by sacrificing large amounts of troops. Ukrainian drones now also target critical military infrastructure inside Russia, and keep Russian ships out of the Black Sea along the Ukrainian coast.

Freeze the air war, and you give Moscow carte blanche to advance by land and sea. There is no way Kyiv could accept such a terrible proposal, even if it tantalized the ill-informed Trump.

If the president were serious about seeking peace, he would drop the idea of a premature summit. Even Secretary of State Marco Rubio (who understands Putin but has been too sycophantic to oppose Trump publicly) has said summits should be reserved as closers on an accord. In other words, not used to beg.

Trump would also stop treating the Europeans as enemies with his blunderbuss tariffs. He would join with Europe in coordinating secondary sanctions on the Kremlin. (And he would be working behind the scenes to discourage purchases of cheap Russian energy by India, which is nominally an ally, instead of publicly berating Delhi.)

Moreover, the White House would be coordinating closely with Europe — and Ukraine — in helping Kyiv massively bolster its own weapons production, which it could do cheaply and quickly, including drones and drone interceptors.

The Europeans, unlike the Trump administration, grasp the danger of Putin's imperial dreams of territorial expansion, not only in Europe but in areas that directly threaten the United States, such as the Arctic. They understand geopolitics, which Trump doesn't.

Trump should accept Zelenskyy's offer to produce huge numbers of Ukrainian drones for America in exchange for essential U.S. weapons systems. This would not only counter Russian technological advances but would help provide the United States with battle-tested drone technology it lacks.

Of course, all of the above would require Trump to emerge from the bubble in which he still believes he can bend dictators and autocrats to his will by force of his personality. That is probably far too much to hope for.

One can only hope that Putin so overplays his hand in Alaska that even Trump understands he is being played for a fool — and opts not to shoot himself in the foot and Ukraine in the back.

Trudy Rubin writes for the Philadelphia Inquirer.

Environmental Impact Statement for
SpaceX Starship-Super Heavy Launch Vehicle
AT LAUNCH COMPLEX 39A AT THE KENNEDY SPACE CENTER, MERRITT ISLAND, FLORIDA

Draft Environmental Impact Statement Now Available

The Federal Aviation Administration (FAA) is announcing the availability of the Draft Environmental Impact Statement (EIS) for SpaceX's proposed licensing and operation of the SpaceX Starship-Super Heavy Vehicle at Launch Complex 39A (LC-39A) at Kennedy Space Center (KSC) in Merritt Island, Florida and its intent to hold public meetings.

The Draft EIS analyzes:

- Up to 44 Starship-Super Heavy launches per year
- Up to 44 Super Heavy landings per year, to include landings at LC-39A, landing on a droneship in the Atlantic Ocean, or expending in the Atlantic Ocean
- Up to 44 Starship landings per year, to include landings at LC-39A, landing on a droneship in the Atlantic Ocean, or soft-water or hard-water landing with expending or recovery in the Atlantic Ocean, Pacific Ocean, or Indian Ocean
- Construction of launch, landing, and other associated infrastructure at and in proximity to LC-39A

The Draft EIS is available for public review at: https://www.faa.gov/space/stakeholder_engagement/spacex_starship_ksc.

The FAA invites interested parties to submit comments on the Draft EIS. The public comment period for the Draft EIS will close on September 22, 2025. Instructions on how to submit comments can be found on the FAA webpage at the address listed to the left.

The FAA will host four in-person public meetings and one virtual meeting on the following dates:

Tuesday, August 26, 2025; two meetings:
1:00 PM - 3:00 PM and 6:00 PM - 8:00 PM ET; Astronauts Memorial Foundation, Center for Space Education, Conference Center, State Road 405, Kennedy Space Center, FL 32899

Thursday, August 28, 2025; two meetings:
1:00 PM - 3:00 PM and 6:00 PM - 8:00 PM ET; Radisson Conference Center, Grande Caribbean, 8701 Astronaut Boulevard, Cape Canaveral, FL 32920

Wednesday, September 3, 2025; 6:00 PM - 8:00 PM ET (virtual)
Registration link: https://us02web.zoom.us/webinar/register/WN_2aotlSQERXCHCsyJjOvmbA; Dial-in phone number: 888-788-0099 (Toll Free), Webinar ID: 892 9206 9685, Passcode: 095859

Please note, registration is required for the virtual meeting.

The FAA will provide a pre-recorded presentation during the first half hour of the public meetings. Members of the public will have three minutes to provide oral comments to a court reporter who will transcribe the comment for the record.

More information on the public meetings can be found at: https://www.faa.gov/space/stakeholder_engagement/spacex_starship_ksc.

If any accommodation for the public meetings is needed (such as translation services), please submit a request by August 14, 2025 to SpaceXStarship39AEIS@icf.com.

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needed, DOT staff will contact the nominee, obtain information from the nominee's past affiliations, or obtain information from publicly available sources, such as the internet.

Nominations must be received before October 24, 2025. Nominees selected for appointment to the Committee will be notified by return email and by letter of appointment.

Issued in Washington, DC, on September 12, 2025.

Brandon Roberts,

Executive Director, Office of Rulemaking.

[FR Doc. 2025–18472 Filed 9–23–25; 8:45 am]

BILLING CODE 4910–13–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

Notice of Extension of Public Comment Period on the Draft Environmental Impact Statement for the SpaceX Starship-Super Heavy Vehicle at Launch Complex 39A, at Kennedy Space Center in Merritt Island, Florida

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Public comment period.

SUMMARY: In accordance with the National Environmental Policy Act of 1969, as amended (NEPA) and FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures*, the FAA is announcing the extension of the comment period on the Draft Environmental Impact Statement for SpaceX Starship-Super Heavy Vehicle operations at Launch Complex 39A at Kennedy Space Center in Merritt Island, Florida (Draft EIS).

DATES: The public comment period for the Draft EIS will close on September 29, 2025.

ADDRESSES: The Draft EIS is available for public review at *https://www.faa.gov/space/stakeholder_engagement/spacex_starship_ksc*. The Draft EIS has been posted and comments will be received through the Federal E-Rulemaking Portal: *https://www.regulations.gov*. Search for "FAA–2024–1395" to retrieve the docket and follow the instructions to submit a comment.

The FAA invites interested parties to submit comments on the Draft EIS. Public comments can be submitted electronically to *www.regulations.gov* under Docket No. FAA–2024–1395, by postal mail to Ms. Eva Long, FAA Environmental Protection Specialist, c/o Leidos, 2877 Guardian Lane, Virginia Beach, VA 23452.

SUPPLEMENTARY INFORMATION: The Draft EIS analyzes:

- Up to 44 Starship-Super Heavy launches per year
- Up to 44 Super Heavy landings per year, to include landings at LC–39A, landing on a droneship in the Atlantic Ocean, or expending in the Atlantic Ocean
- Up to 44 Starship landings per year, to include landings at LC–39A, landing on a droneship in the Atlantic Ocean, or soft-water or hard-water landing with expending or recovery in the Atlantic Ocean, Pacific Ocean, or Indian Ocean
- Construction of launch, landing, and other associated infrastructure at and in proximity to LC–39A

Before including your address, phone number, email address, or other personal identifying information in your comment, be advised that your entire comment—including your personal identifying information—may be made publicly available at any time. While you can ask the FAA in your comment to withhold from public review your personal identifying information, the FAA cannot guarantee that it will be able to do so. All comments received during the comment period will be given equal weight and be taken into consideration in the preparation of the Final EIS.

Issued in Washington, DC, on September 22, 2025.

Stacey Molinich Zee,

Manager, Operations Support Branch.

[FR Doc. 2025–18523 Filed 9–23–25; 8:45 am]

BILLING CODE 4910–13–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

Notice of Request To Release Airport Property; Maquoketa Municipal Airport (OQW), Maquoketa, Iowa

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of intent to rule on request to release airport property for land disposal.

SUMMARY: The FAA proposes to rule and invites public comments on the release and disposal of one parcel of land at the Maquoketa Municipal Airport (OQW), Maquoketa, Iowa.

DATES: Comments must be received on or before October 24, 2025.

ADDRESSES: Comments on this application may be mailed or delivered to the FAA at the following address: Amy J. Walter, Airports Land Specialist, Federal Aviation Administration, Airports Division, ACE–620G, 901 Locust, Room 364, Kansas City, MO 64106.

In addition, one copy of any comments submitted to the FAA must be mailed or delivered to: Joshua Boldt, City Manager, City of Maquoketa, 201 E Pleasant Street, Maquoketa, IA 52060, (563) 652–2484.

FOR FURTHER INFORMATION CONTACT: Amy J. Walter, Airports Land Specialist, Federal Aviation Administration, Airports Division, ACE–620G, 901 Locust, Room 364, Kansas City, MO 64106, (816) 329–2603, *amy.walter@faa.gov*.

The request to release property may be reviewed, by appointment, in person at this same location.

SUPPLEMENTARY INFORMATION: The FAA invites public comment on the request to release approximately 3.59-acres of airport property at the Maquoketa Municipal Airport (OQW) under the provisions of 49 U.S.C. 47107(h)(2). The City Manager has requested from the FAA one parcel totaling 3.59-acres of airport property be released from obligations and sold. The FAA determined the request to release and sell this property at the Maquoketa Municipal Airport (OQW) submitted by the Sponsor meets the procedural requirements of the Federal Aviation Administration and the release and sale of the property does not and will not impact future aviation needs at the airport. The FAA may approve the request, in whole or in part, no sooner than thirty days after the publication of this Notice.

The following is a brief overview of the request:

Maquoketa Municipal Airport (OQW) is proposing the release and sale of 3.59-acres of airport property. The release of land is necessary to comply with Federal Aviation Administration Grant Assurances that do not allow federally acquired airport property to be used for non-aviation purposes. The sale of the subject property will result in the release of land and surface rights at the Maquoketa Municipal Airport (OQW) from the conditions of the AIP Grant Agreement Grant Assurances. In accordance with 49 U.S.C. 47107(c)(2)(B)(i) and (iii), the airport will receive fair market value when the parcel is sold.

Any person may inspect, by appointment, the request in person at the FAA office listed above under **FOR FURTHER INFORMATION CONTACT**. In addition, any person may request an appointment and inspect the application, notice and other documents