

# **ENVIRONMENTAL IMPACT STATEMENT**

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

at the Kennedy Space Center, Merritt Island, Florida

Final, Volume II, Appendix A.3

January 2026



**Federal Aviation  
Administration**

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## A.3 Agency and Tribal Correspondence

### A.3.1 United States Fish and Wildlife Service



U.S. Department  
of Transportation  
**Federal Aviation  
Administration**

Commercial Space Transportation  
800 Independence Ave., SW.  
Washington, DC 20591

April 5, 2024

Mr. Keith Ramos  
Manager, Merritt Island National Wildlife Refuge  
U.S. Fish and Wildlife Service  
1963 Refuge Headquarters Rd  
Titusville, FL 32781

Dear Mr. Ramos:

The Federal Aviation Administration (FAA) Office of Commercial Space Transportation (AST) is developing an Environmental Impact Statement (EIS) to analyze the potential environmental impacts of issuing a Vehicle Operator License to Space Exploration Technologies Corporation (SpaceX) and approving associated airspace closures for Starship-Super Heavy launch operations from Launch Complex (LC)-39A at Kennedy Space Center (KSC) in Florida. In addition to launch operations, the EIS will consider the environmental impacts associated with the construction of launch, landing, and other attendant infrastructure at and in proximity to LC-39A. SpaceX operations would include landing the Super Heavy booster at LC-39A and conducting expendable and recoverable ocean landings of the Super Heavy booster (Atlantic Ocean) and Starship (Pacific and Indian Oceans).

Because of the proposal's location in relation to the Merritt Island National Wildlife Refuge, the FAA requests your participation as a cooperating agency in the development of this EIS as outlined in the Council of Environmental Quality regulations (40 CFR §1501.6). We look forward to you providing relevant expertise regarding federally listed species, national wildlife refuges, and information to facilitate the National Environmental Policy Act process. Please respond regarding your interest in participating as a cooperating agency at your earliest convenience.

Please contact Ms. Eva Long, Environmental Protection Specialist, from my staff at (321) 759-2188 or by email at [Eva.Long@faa.gov](mailto:Eva.Long@faa.gov) with any questions.

Sincerely,

STACEY

Digitally signed by STACEY  
DN: cn=STACEY, o=FAA, ou=AST, email=stacey@faa.gov

MOLINICH ZEE

Stacey M. Zee  
Manager, Operations Support Branch

cc:

Ms. Kathleen Burchett, R4 Refuge Supervisor - Area II, US Fish and Wildlife Service



## United States Department of the Interior

FISH AND WILDLIFE SERVICE  
1875 Century Boulevard  
Atlanta, Georgia 30345



In Reply Refer To:  
FWS/R4/NWRS/Area 2/081122

July 30, 2024

Stacey Molinich Zee  
Manager, Operations Support Branch, Commercial Space Transportation  
Federal Aviation Administration  
800 Independence Ave, SW  
Washington, D.C. 20591  
*delivered via email to:* [Stacey\\_Zee@faa.gov](mailto:Stacey_Zee@faa.gov)

Re: U.S. Fish and Wildlife Service Response to the Federal Aviation Administration's  
Environmental Impact Statement Cooperating Agency Request for SpaceX's Proposed Starship-  
Super Heavy Operations at Kennedy Space Center, Florida

Dear Ms. Zee:

The U.S. Fish and Wildlife Service (Service) appreciates the opportunity to participate as a cooperating agency in the Federal Aviation Administration's (FAA's) Environmental Impact Statement (EIS) for SpaceX's proposed Starship-Super Heavy operations at Kennedy Space Center (KSC) in Brevard County, Florida.

As a cooperating agency on this EIS, the Service's role would be to attend cooperating agency meetings, provide verbal and written comments as needed, and consult under the Endangered Species Act and any other applicable laws implemented by the Service. The Service will not be preparing any sections or subsections of the FAA's EIS or any other related or support documents. The cooperating agency status and level of involvement of the Service in this FAA EIS would not preclude the independent review and comment responsibilities of the Service under Section 102(2)(C) of the National Environmental Policy Act. The cooperating agency status and level of involvement of the Service in this EIS does not imply or convey that the Service concurs with all aspects of the FAA's analysis and findings.

Key Service points of contact and staff for this EIS are listed.

- National Wildlife Refuge System, Migratory Birds, and Fisheries
  - Primary Point of Contact: Keith Ramos, Project Leader, Merritt Island National Wildlife Refuge Complex, National Wildlife Refuge System, Southeast Region, U.S. Fish and Wildlife Service, [keith\\_ramos@fws.gov](mailto:keith_ramos@fws.gov)
  - Tom Penn, Deputy Project Leader, Merritt Island National Wildlife Refuge Complex, National Wildlife Refuge System, Southeast Region, U.S. Fish and Wildlife Service, [tom\\_penn@fws.gov](mailto:tom_penn@fws.gov)

Ms. Zee

2

- Cheri Ehrhardt, Natural Resource Planner, National Wildlife Refuge System, Southeast Region, U.S. Fish and Wildlife Service, [cheri\\_ehrhardt@fws.gov](mailto:cheri_ehrhardt@fws.gov)
- Ecological Services
  - Primary Point of Contact: Brendan Myers, Regulatory Biologist, Florida Ecological Services Field Office, Southeast Region, U.S. Fish and Wildlife Service, [brendan\\_myers@fws.gov](mailto:brendan_myers@fws.gov)
  - Mike Gillikin, Wildlife Biologist/Cape Canaveral Space Force Station Liaison, Florida Ecological Services Field Office, Southeast Region, U.S. Fish and Wildlife Service, [michael\\_gillikin@fws.gov](mailto:michael_gillikin@fws.gov)

Please include the above-listed staff in cooperating agency meetings and comment opportunities. Please direct any questions regarding the cooperating agency status of the Service to Keith Ramos, listed above.

Sincerely,



Mike Oetker  
Regional Director

cc:

Kathleen Burchett, Refuge Supervisor, Southeast Region, U.S. Fish and Wildlife Service,  
[kathleen\\_burchett@fws.gov](mailto:kathleen_burchett@fws.gov)

Larry Williams, Program Supervisor, Florida Ecological Services Field Office, Southeast  
Region, U.S. Fish and Wildlife Service, [larry\\_williams@fws.gov](mailto:larry_williams@fws.gov)



MEMORANDUM OF UNDERSTANDING  
BETWEEN  
FEDERAL AVIATION ADMINISTRATION  
OFFICE OF COMMERCIAL SPACE TRANSPORTATION  
AND  
U.S. FISH AND WILDLIFE SERVICE  
FOR THE  
SPACEX STARSHIP-SUPER HEAVY LAUNCH PROGRAM AT LAUNCH COMPLEX 39A  
ENVIRONMENTAL IMPACT STATEMENT

A. Introduction and Purpose

1. The purpose of this Memorandum of Understanding (MOU) is to establish an agreement between the Federal Aviation Administration Office of Commercial Space Transportation (FAA/AST or Party) and the U.S. Fish and Wildlife Service (USFWS or Party) (collectively, the Parties) regarding the roles, responsibilities, conditions, and procedures to be followed in preparing an Environmental Impact Statement (EIS) that complies with applicable statutes and regulations. The FAA/AST is the lead Federal agency for the project, and USFWS will be a cooperating agency. FAA/AST is responsible for licensing the operation of commercial launch facilities and the launches/reentries of launch vehicles pursuant to the Commercial Space Launch Act (as amended) of 1984 (51 United States Code (U.S.C.) Subtitle V, Ch. 509, §50901-50923).
2. The FAA/AST is in the early stages of developing an EIS to analyze the potential environmental impacts of issuing a Vehicle Operator License to Space Exploration Technologies Corporation (SpaceX) for the proposed launches of the Starship-Super Heavy vehicle from Launch Complex (LC)-39A at the John F. Kennedy Space Center (KSC) in Florida. To support Starship-Super Heavy launches, the Proposed Action would also include the construction of launch, landing, and other attendant infrastructure at and in proximity to LC-39A. SpaceX is proposing to land the Super Heavy booster at LC-39A and conduct expendable and recoverable ocean landings of the Super Heavy booster and Starship. The property to be evaluated for the facilities, infrastructure, and associated operations is currently used by SpaceX for Falcon program launches and is within the boundaries of KSC, much of which is overlapped by the USFWS-managed Merritt Island National Wildlife Refuge (NWR).
3. The EIS is being prepared as required by the National Environmental Policy Act of 1969, as amended (NEPA) (42 U.S.C. 4321 et seq.), the Council on Environmental Quality (CEQ) Regulations for Implementing the Procedural Provisions of NEPA (40 Code of Federal Regulations parts 1500-1508), and FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures*.

B. USFWS Responsibilities:

1. USFWS agrees to participate as a cooperating agency on the EIS. USFWS has special expertise and management responsibilities for land potentially affected by the activities evaluated in the EIS. The Proposed Action is located on, adjacent to, and outside of Merritt

Island NWR. By agreement with NASA, USFWS manages Merritt Island NWR, much of which overlays KSC. In addition, the USFWS also owns and manages additional property outside of KSC as part of Merritt Island NWR. Similarly, the National Park Service manages Canaveral National Seashore, which abuts and overlaps a portion of Merritt Island NWR and KSC; the National Park Service also owns and manages additional property outside of KSC as part of Canaveral National Seashore. The USFWS and National Park Service have some shared responsibilities for the lands in the overlap between Merritt Island NWR and Canaveral National Seashore.

2. USFWS will provide written comments that would support FAA/AST's preparation of the EIS, reflecting special expertise with respect to environmental issues concerning the impacts of the Proposed Action. USFWS will not prepare any portions of the EIS or supporting documents as a cooperating agency but will engage in all appropriate consultations and will prepare such documents, reports, and opinions necessary to comply with Section 7 of the Endangered Species Act. USFWS will endeavor to meet the review periods provided by the FAA.
3. USFWS will designate two main points of contact on all matters concerning the EIS preparation: (1) National Wildlife Refuge System and (2) Ecological Services.
4. USFWS will attend meetings (e.g., scoping, Draft EIS, or as may be otherwise required) (in person or via telecon) with Federal, State, regional, and local agencies and interested individuals and groups, where appropriate, to protect USFWS's interests, for the purpose of increasing communication and providing comments on the project.
5. USFWS will ensure cooperative coordination of efforts and exchange of information with the EIS contractor, using procedures agreed upon by FAA/AST.
6. USFWS agrees that it will not directly contact the EIS contractor (Leidos) with respect to any requests for preparing or amending portions of the content of the EIS unless first permitted to do so by the FAA/AST. At the request of FAA/AST, USFWS will participate in FAA/AST EIS project team meetings with the EIS contractor as may be scheduled during the EIS's preparation.
7. USFWS comments (on any NEPA related document) that are generated from multiple USFWS staff/divisions will be consolidated by USFWS into one submittal before being sent to FAA/AST.
8. USFWS will provide documentation as requested by the FAA/AST for creation of the Administrative Record.

C. FAA/AST Responsibilities:

1. As the lead Federal agency in this effort to prepare an EIS, the FAA/AST is ultimately responsible for assuring compliance with the requirements of NEPA.
2. The FAA/AST and the EIS contractor will share the responsibility for planning, advertising, conducting, and memorializing scoping meetings and public hearings/meetings. The EIS contractor and the FAA/AST will make meeting arrangements

and prepare all material necessary for the meetings. The FAA/AST will coordinate materials, as appropriate, with USFWS for review. USFWS will attend (in person or via telecon) as a cooperating agency.

3. Upon completion of the preliminary Draft EIS, the FAA/AST and USFWS, along with any other cooperating agencies, will review the document. USFWS will have 10 business days (as specified in the schedule) for the review unless a longer period is agreed upon by the FAA/AST. The FAA/AST, assisted by its EIS contractor, is responsible for printing and distributing the Scoping Summary Report, Draft EIS, and Final EIS.
4. The FAA/AST will release the Draft EIS to the public and to Federal, State, and local agencies for review and comment. The FAA/AST will be responsible for filing the Draft EIS with the U.S. Environmental Protection Agency (EPA). A public comment period of no less than 45 calendar days will be initiated when the EPA publishes the "Notice of Availability" of the Draft EIS in the Federal Register.
5. The FAA/AST will be the recipient of all comments on the Draft EIS resulting from the review and comment period. The FAA/AST will provide copies of all comments to USFWS and any other cooperating agencies in a timely manner after the end of the comment period. As appropriate, the FAA/AST and USFWS will consider and address any comments on the Draft EIS that are specific to USFWS's expertise.
6. Following the close of the Draft EIS review and comment period, upon revision of the text, which will include responses to the comments on the Draft EIS, the FAA/AST and USFWS, along with any other cooperating agencies, will review and comment on the preliminary Final EIS. USFWS will have 5 business days for review (as specified in the schedule) unless a longer period is agreed to by FAA/AST. At the conclusion of its review, USFWS will inform the FAA/AST whether its comments and proposed revisions, if any, have been satisfied. The FAA/AST will file the Final EIS with the EPA.
7. For reviews of documents and materials other than the completed preliminary DEIS and preliminary FEIS (as detailed in #3 and #6 above), the USFWS review will be for the time periods specified in the schedule unless a longer period is agreed to by FAA/AST. Examples of other reviews may include, but are not limited to, back check reviews, review of the description of Proposed Action and alternatives (DOPAA), and review of public meeting materials.

#### D. Dispute Resolution

1. The Parties agree that if a dispute regarding the provisions of this MOU arises, efforts will be made to settle the dispute cooperatively at the lowest staffing possible level. If efforts to settle at the lowest level are unsuccessful, then the dispute will be elevated to the next higher level of management within each Party. If the next higher level of management for each Party is unable to resolve the dispute, then the dispute will be elevated to the next higher level and will continue to be elevated within the Parties until the dispute is resolved.
2. If a dispute concerns substantive environmental issues addressed in the EIS rather than procedural issues covered by this MOU, USFWS has the option of referring an interagency disagreement to the CEQ, consistent with the CEQ regulations implementing NEPA.

However, it is recognized that such a referral is reserved as a last resort when the Parties have exhausted all reasonable efforts to resolve a dispute.

E. Modification and Termination

This MOU may be modified only by written agreement of the Parties, signed and executed by the Parties' authorized representatives.

Each Party to this MOU may terminate this MOU after 30 calendar days prior notice, in writing, to the other Party. During the intervening 30 calendar days, the Parties agree to actively attempt to resolve any disputes or disagreements.

F. Duration of MOU

This MOU is effective on the date all Parties have signed and will terminate when the Administrative Record is provided to the FAA/AST by the EIS contractor, unless terminated earlier pursuant to Section E above.

G. Key Officials

The personnel specified below are considered essential to the successful coordination and communication between the FAA/AST and USFWS for the responsibilities and understandings described in this MOU. Upon written notice to the other Party (or Parties) in this MOU, that Party may designate an alternate to act in place of the designated Key Official or designate a new Key Official. Notices from either Party with respect to this MOU must be in writing and delivered by personal or electronic delivery or other appropriate means to the Key Officials of the other Party at the addresses or contact information indicated below.

For USFWS:

Name: Gianfranco Basili

Title: Deputy State Supervisor, Florida Ecological Services Field Office, Southeast Region, U.S. Fish and Wildlife Service

Email: gianfranco\_basili@fws.gov

Phone Number: 352-749-2451

Name: Keith Ramos

Title: Project Leader, Merritt Island National Wildlife Refuge Complex, National Wildlife Refuge System, Southeast Region, U.S. Fish and Wildlife Service

Email: keith\_amos@fws.gov

Phone Number: 321-861-2278

For FAA:

Name: Eva Long

Title: Environmental Protection Specialist

Email: eva.long@faa.gov

Phone Number: 321-759-2188

Name: Amy Hanson

Title: Environmental Protection Specialist



Email: amy.hanson@faa.gov  
Phone Number: 847-243-7609

FOR THE FEDERAL AVIATION ADMINISTRATION, OFFICE OF COMMERCIAL SPACE  
TRANSPORTATION:

DATE: 1/24/25

SIGNED: DANIEL P MURRAY Digitally signed by  
DANIEL P MURRAY  
Date: 2025.01.24  
18:18:22 -0500

Daniel P. Murray  
Executive Director, Office of Operational Safety  
FAA/AST

FOR THE U.S. FISH AND WILDLIFE SERVICE:

DATE: 1/23/25

SIGNED: MICHAEL OETKER Digitally signed by  
MICHAEL OETKER  
Date: 2025.01.23  
15:25:44 -0500

Mike Oetker  
Regional Director  
Southeast Region  
U.S. Fish and Wildlife Service

## A.3.2 National Park Service



U.S. Department  
of Transportation  
**Federal Aviation  
Administration**

Commercial Space Transportation  
800 Independence Ave. SW.  
Washington, DC 20591

April 5, 2024

Ms. Carmen Thomson  
Superintendent, Canaveral National Seashore  
U.S. Department of the Interior  
National Park Service  
212 S Washington Ave  
Titusville, FL 32796

Dear Ms. Thomson:

The Federal Aviation Administration (FAA) Office of Commercial Space Transportation (AST) is developing an Environmental Impact Statement (EIS) to analyze the potential environmental impacts of issuing a Vehicle Operator License to Space Exploration Technologies Corporation (SpaceX) and approving associated airspace closures for Starship-Super Heavy launch operations from Launch Complex (LC)-39A at Kennedy Space Center (KSC) in Florida. In addition to launch operations, the EIS will consider the environmental impacts associated with the construction of launch, landing, and other attendant infrastructure at and in proximity to LC-39A. SpaceX operations would include landing the Super Heavy booster at LC-39A and conducting expendable and recoverable ocean landings of the Super Heavy booster (Atlantic Ocean) and Starship (Pacific and Indian Oceans).

Because of the proposal's proximity to the Canaveral National Seashore, the FAA requests your participation as a cooperating agency in the development of this EIS as outlined in the Council on Environmental Quality regulations (40 CFR §1501.6). We look forward to you providing relevant expertise regarding historic properties and information to facilitate the National Environmental Policy Act process. Please respond regarding your interest in participating as a cooperating agency at your earliest convenience.

Please contact Ms. Eva Long, Environmental Protection Specialist, from my staff at (321) 759-2188 or by email at [Eva.Long@faa.gov](mailto:Eva.Long@faa.gov) with any questions.

Sincerely,

STACEY

MOLINICH ZEE

Digitally signed by  
STACEY MOLINICH ZEE  
Date: 2024.04.05  
16:23:01 -0400

Stacey M. Zee  
Manager, Operations Support Branch

cc:

Mr. Ben West, Program Manager, Planning and Compliance Division, NPS, DOI Region 2, South Atlantic-Gulf Region  
Ms. Meredith Dennis, Environmental Protection Specialist, NPS, DOI Region 2, South Atlantic-Gulf Regional Office



## United States Department of the Interior

NATIONAL PARK SERVICE  
Atlanta Federal Center  
1924 Building  
100 Alabama Street, SW  
Atlanta, GA 30303



IN REPLY REFER TO:

1.A.2 (SERO-PC)

Ms. Stacey M. Zee  
Manager, Operations Support Branch  
U.S. Department of Transportation  
Federal Aviation Administration  
Commercial Space Transportation  
800 Independence Ave., SW  
Washington, DC 20591

Dear Ms. Zee:

In response to your letter dated April 5, 2024, the National Park Service (NPS), formally accepts your request to participate as a cooperating agency in developing the Environmental Impact Statement (EIS) to analyze the potential environmental impacts of issuing a Vehicle Operator License to Space Exploration Technologies Corporation (SpaceX) and approving associated airspace closures for Starship-Super Heavy launch operations from Launch Complex (LC)-39A at Kennedy Space Center (KSC) in Florida.

The NPS has special expertise regarding the resources and values of Canaveral National Seashore (CANA) and the surrounding areas which would likely be impacted by Starship-Super Heavy launches at nearby LC-39A. The NPS proposes to assist the Federal Aviation Administration (FAA) in the development of its environmental impact analysis and ultimate decision regarding the issuance of a Vehicle Operator License for SpaceX launches at LC-39A. As a cooperating agency, the NPS would assist the FAA in developing the EIS to ensure that pertinent NPS mission statements, legislative authorities, and policies are duly considered when developing any alternatives, related management actions, or options that would potentially affect CANA. Comments on the Draft Description of the Proposed Action and Alternatives provided on April 3, 2024, should also be considered as initial NPS scoping comments to assist in the development of the EIS for the project. The NPS's cooperating agency status and level of involvement would not preclude our independent review and comment responsibilities under Section 102(2)(C) of the National Environmental Policy Act. Similarly, our being a cooperating agency would not imply that the NPS would necessarily concur with all aspects of the FAA's findings.

Interior Region 2 • South Atlantic-Gulf

**Alabama, Florida, Georgia, Kentucky, Louisiana, Mississippi  
North Carolina, Puerto Rico, South Carolina, Tennessee, U.S. Virgin Islands**



We look forward to working with the FAA on this important project and EIS. Should you have any questions, or need additional information concerning this request, please contact Ms. Meredith Dennis at [meredith\\_dennis@nps.gov](mailto:meredith_dennis@nps.gov) for general project coordination and Ms. Carmen Thomson, Superintendent, Canaveral National Seashore, at [carmen\\_thomson@nps.gov](mailto:carmen_thomson@nps.gov) for CANA-specific questions.

Sincerely,

MARK  
FOUST

Digitally signed by MARK  
FOUST  
Date: 2025.05.14  
10:15:45 -04:00

Mark A. Foust  
Regional Director

MEMORANDUM OF UNDERSTANDING  
BETWEEN  
FEDERAL AVIATION ADMINISTRATION  
OFFICE OF COMMERCIAL SPACE TRANSPORTATION  
AND  
NATIONAL PARK SERVICE  
FOR THE  
SPACEX STARSHIP-SUPER HEAVY LAUNCH PROGRAM AT LAUNCH COMPLEX  
39A ENVIRONMENTAL IMPACT STATEMENT

A. Introduction and Purpose

1. The purpose of this Memorandum of Understanding (MOU) is to establish an agreement between the Federal Aviation Administration Office of Commercial Space Transportation (FAA/AST or Party) and the National Park Service (NPS or Party) (collectively, the Parties) regarding the roles, responsibilities, conditions, and procedures to be followed in preparing an Environmental Impact Statement (EIS) that complies with applicable statutes and regulations. The FAA/AST is the lead Federal agency for the project, and the NPS will be a cooperating agency. FAA/AST is responsible for licensing the operation of commercial launch facilities and the launches/reentries of launch vehicles pursuant to the Commercial Space Launch Act (as amended) of 1984 (51 United States Code (U.S.C.) Subtitle V, Ch. 509, §50901-50923).
2. The FAA/AST is in the early stages of developing an EIS to analyze the potential environmental impacts of issuing a Vehicle Operator License to Space Exploration Technologies Corporation (SpaceX) for the proposed launches of the Starship-Super Heavy vehicle from Launch Complex (LC)-39A at the John F. Kennedy Space Center (KSC) in Florida. To support Starship-Super Heavy launches, the Proposed Action would also include the construction of launch, landing, and other attendant infrastructure at and in proximity to LC-39A. SpaceX is proposing to land the Super Heavy booster at LC-39A and conduct expendable and recoverable ocean landings of the Super Heavy booster and Starship. The property to be evaluated for the facilities, infrastructure, and associated operations is currently used by SpaceX for Falcon program launches and is within the boundaries of KSC.
3. The EIS is being prepared as required by the National Environmental Policy Act of 1969, as amended (NEPA) (42 U.S.C. 4321 et seq.), the Council on Environmental Quality (CEQ) Regulations for Implementing the Procedural Provisions of NEPA (40 Code of Federal Regulations parts 1500-1508), and FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures*.
4. The NPS enters into this MOU pursuant to the following legal authority: General Authority to Take Actions That Promote and Regulate Units of the National Park System (54 U.S.C. §§ 100101 - 100102): The NPS Organic Act directs the Secretary to promote and regulate National Park System lands by such means and measures as to

conform to the fundamental purpose of such lands, namely, conservation of the scenery and the natural and historic objects and wildlife therein, and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations.

**B. NPS Responsibilities:**

1. The NPS agrees to participate as a cooperating agency on the EIS. The NPS has special expertise and management responsibilities for land potentially affected by the activities evaluated in the EIS. The NPS manages Canaveral National Seashore, which is located in proximity to the proposed action. The NPS will provide the FAA/AST with relevant information that would support FAA/AST's preparation of the EIS and will provide special expertise including but not limited to environmental issues concerning use of space launch vehicles.
2. The NPS will designate two main points of contact on all matters concerning the EIS preparation.
3. The NPS will attend meetings (e.g., scoping, Draft EIS, or as may be otherwise required) (in person or via telecon) with Federal, State, regional, and local agencies and interested individuals and groups, where appropriate, to protect the NPS's interests, for the purpose of increasing communication and receiving comments on the project.
4. The NPS will ensure cooperative coordination of efforts and exchange of information with the EIS contractor, using procedures agreed upon by FAA/AST.
5. The NPS agrees that it will not directly contact the EIS contractor (Leidos) with respect to any requests for preparing or amending portions of the content of the EIS unless first permitted to do so by the FAA/AST. At the request of FAA/AST, the NPS will participate in FAA/AST EIS project team meetings with the EIS contractor as may be scheduled during the EIS's preparation.
6. The NPS comments (on any NEPA-related document) that are generated from multiple NPS staff/divisions will be consolidated by the NPS into one submittal before being sent to FAA/AST.
7. The NPS will provide documentation as requested to the FAA for creation of the Administrative Record.

**C. FAA/AST Responsibilities:**

1. As the lead Federal agency in this effort to prepare an EIS, the FAA/AST is ultimately responsible for assuring compliance with the requirements of NEPA.
2. The FAA/AST and the EIS contractor will share the responsibility for planning, advertising, conducting, and memorializing scoping meetings and public hearings/meetings. The EIS contractor and the FAA/AST will make meeting arrangements and prepare all material necessary for the meetings. The FAA/AST will coordinate materials, as appropriate, with the NPS for review. The NPS will attend (in person or via telecon) as a cooperating agency.



3. Upon completion of the preliminary Draft EIS, the FAA/AST and the NPS, along with any other cooperating agencies, will review the document. The NPS will have 10 business days (as specified in the schedule) for the review unless a longer period is agreed upon by the FAA/AST. The FAA/AST, assisted by its EIS contractor, is responsible for printing and distributing the Scoping Summary Report, Draft EIS, and Final EIS.
4. The FAA/AST will release the Draft EIS to the public and to Federal, State, and local agencies for review and comment. The FAA/AST will be responsible for filing the Draft EIS with the U.S. Environmental Protection Agency (EPA). A public comment period of no less than 45 calendar days will be initiated when the EPA publishes the "Notice of Availability" of the Draft EIS in the Federal Register.
5. The FAA/AST will be the recipient of all comments on the Draft EIS resulting from the review and comment period. The FAA/AST will provide copies of all comments to the NPS and any other cooperating agencies in a timely manner after the end of the comment period. As appropriate, the FAA/AST and the NPS will consider and address any comments on the Draft EIS that are specific to the NPS's expertise.
6. Following the close of the Draft EIS review and comment period, upon revision of the text, which will include responses to the comments on the Draft EIS, the FAA/AST and the NPS, along with any other cooperating agencies, will review and comment on the preliminary Final EIS. The NPS will have 5 business days for a review (as specified in the schedule) unless a longer period is agreed to by FAA/AST. At the conclusion of its review, the NPS will inform the FAA/AST whether its comments and proposed revisions, if any, have been satisfied. The FAA/AST will file the Final EIS with the EPA.
7. For reviews of documents and materials other than the completed preliminary DEIS and preliminary FEIS (as detailed in #3 and #6 above), the NPS review will be for the time periods specified in the schedule unless a longer period is agreed to by FAA/AST. Examples of other reviews may include, but are not limited to, back check reviews, review of the description of preliminary proposed action and alternatives (DOPAA), and review of public meeting materials.

#### D. Dispute Resolution

1. The Parties agree that if a dispute regarding the provisions of this MOU arises, efforts will be made to settle the dispute cooperatively at the lowest possible staffing level. If efforts to settle at the lowest level are unsuccessful, then the dispute will be elevated to the next higher level of management within each Party. If the next higher level of management for each Party is unable to resolve the dispute, then the dispute will be elevated to the next higher level and will continue to be elevated within the Parties until the dispute is resolved.
2. If a dispute concerns substantive environmental issues addressed in the EIS rather than procedural issues covered by this MOU, the NPS has the option of referring an interagency disagreement to the CEQ, consistent with the CEQ regulations implementing NEPA. However, it is recognized that such a referral is reserved as a last resort when



Parties have exhausted all reasonable efforts to resolve a dispute.

#### E. Modification and Termination

This MOU may be modified only by written agreement of the Parties, signed and executed by the Parties' authorized representatives.

Each Party to this MOU may terminate this MOU after 30 calendar days prior notice, in writing, to the other Party. During the intervening 30 calendar days, the Parties agree to actively attempt to resolve any disputes or disagreements.

#### F. Duration of MOU

This MOU is effective on the date all Parties have signed and will terminate when the Administrative Record is provided to the FAA/AST by the EIS contractor, unless terminated earlier pursuant to Section E above.

#### G. Key Officials

The personnel specified below are considered essential to the successful coordination and communication between the FAA/AST and the NPS for the responsibilities and understandings described in this MOU. Upon written notice to the other Party (or Parties) in this MOU, that Party may designate an alternate to act in place of the designated Key Official or designate a new Key Official. Notices from either Party with respect to this MOU must be in writing and delivered by personal delivery, electronic delivery, or other appropriate means to the Key Officials of the other Party at the addresses or contact information indicated below.

##### For the NPS:

Name: Meredith Dennis

Title: Environmental Protection Specialist, Southeast Regional Office

Email: [Meredith\\_dennis@nps.gov](mailto:Meredith_dennis@nps.gov)

Phone Number: 404-507-5710

Name: Carmen Thomson

Title: Superintendent, Canaveral National Seashore

Email: [carmen\\_thomson@nps.gov](mailto:carmen_thomson@nps.gov)

Phone Number: 321-291-1860

##### For FAA:

Name: Eva Long

Title: Environmental Protection Specialist

Email: [eva.long@faa.gov](mailto:eva.long@faa.gov)

Phone Number: 321-759-2188

Name: Amy Hanson

Title: Environmental Protection Specialist

Email: [amy.hanson@faa.gov](mailto:amy.hanson@faa.gov)

Phone Number: 847-243-7609

FOR THE FEDERAL AVIATION ADMINISTRATION, OFFICE OF COMMERCIAL SPACE  
TRANSPORTATION:

DATE: \_\_\_\_\_

SIGNED: **DANIEL P  
MURRAY** Digitally signed by DANIEL  
P. MURRAY  
Date: 2025.01.24 18:15:10  
+0500

Daniel P. Murray  
Executive Director, Office of Operational Safety  
FAA/AST

FOR THE NATIONAL PARK SERVICE:

DATE: \_\_\_\_\_

SIGNED: **MARK  
FOUST** Digitally signed by MARK  
FOUST  
Date: 2025.01.21 13:48:34  
+0500

Mark A. Foust  
Regional Director, Interior Region 2  
National Park Service

### A.3.3 United States Coast Guard



**Follow Up Flag:** Follow up  
**Flag Status:** Completed  
**Categories:** Admin Record

For the record: Cooperating agency request email to USCG.

Eva Long, Operational Support Branch (ASA-140)  
HQ, Office of Commercial Space Transportation  
Federal Aviation Administration  
1201 Edward H. White II Street  
Facility 423  
Patrick SFB, FL 32925  
Cell: 321-446-1605  
eva.long@faa.gov



**Subject:** KSC Starship Super Heavy EIS

Kevin and John –

This email is to formally invite U.S. Coast Guard to act a cooperating agency in the Kennedy Space Center (KSC) Starship Super Heavy Environmental Impact Statement (EIS). The Federal Aviation Administration (FAA) Office of Commercial Space Transportation (AST) is developing an EIS to analyze the potential environmental impacts of issuing a Vehicle Operator License to Space Exploration Technologies Corporation (SpaceX) and approving associated airspace closures for Starship-Super Heavy launch operations from Launch Complex (LC)-39A at KSC in Florida.

Per our existing MOU, the FAA is inviting U.S. Coast Guard to participate as a cooperating agency in the EIS due to the agency's regulatory authority over waterways and vessels relevant to maritime safety and space launch operations.

Please respond regarding your interest in participating as a cooperating agency at your earliest convenience.

Thank you,  
Stacey Zee



**Stacey M. Zee**  
Manager  
Operations Support Branch (ASA-140)

Office: 202-267-9305  
Mobile: 202-981-1437  
Email: [stacey.zee@faa.gov](mailto:stacey.zee@faa.gov)

Federal Aviation Administration  
Office of Commercial Space Transportation  
800 Independence Ave, SW  
Washington, DC 20591

[www.faa.gov](http://www.faa.gov)



### A.3.4 National Aeronautics and Space Administration



U.S. Department  
of Transportation  
**Federal Aviation  
Administration**

Commercial Space Transportation  
800 Independence Ave., SW.  
Washington, DC 20591

April 5, 2024

Ms. Janet Petro  
Director, John F. Kennedy Space Center  
National Aeronautics and Space Administration  
Kennedy Space Center, FL 32899

Dear Ms. Petro:

At your request, the Federal Aviation Administration (FAA) Office of Commercial Space Transportation (AST) is developing an Environmental Impact Statement (EIS) to analyze the potential environmental impacts of issuing a Vehicle Operator License to Space Exploration Technologies Corporation (SpaceX) and approving associated airspace closures for Starship-Super Heavy launch operations from Launch Complex (LC)-39A at Kennedy Space Center (KSC) in Florida. In addition to launch operations, the EIS will consider the environmental impacts associated with the construction of launch, landing, and other attendant infrastructure at and in proximity to LC-39A. SpaceX operations would include landing the Super Heavy booster at LC-39A and conducting expendable and recoverable ocean landings of the Super Heavy booster (Atlantic Ocean) and Starship (Pacific and Indian Oceans).

We request your participation as a cooperating agency in the development of this EIS as outlined in the Council on Environmental Quality regulations (40 CFR §1501.6). As the jurisdictional Federal agency, NASA is responsible for managing areas on KSC for space-related development and operations and provides oversight for non-NASA space and technology development activities that occur on KSC property. We look forward to you providing relevant special expertise regarding potential impacts from space launches, operation of the launch site, and information to facilitate the National Environmental Policy Act process. Please respond regarding your interest in participating as a cooperating agency at your earliest convenience.

Please feel free to contact Ms. Stacey Zee, Manager, Operations Support Branch, from my staff at (202) 267-9305 or by email at [Stacey.Zee@faa.gov](mailto:Stacey.Zee@faa.gov) with any questions.

Sincerely,

Digitally signed by DANIEL P  
**DANIEL P MURRAY** MURRAY  
Date: 2024.04.05 16:54:20 -04'00'

Daniel P. Murray  
Executive Director, Office of Operational Safety

cc:  
Mr. Donald Dankert, KSC-SIE30

National Aeronautics and Space Administration

**John F. Kennedy Space Center**  
Kennedy Space Center, FL 32899



May 20, 2024

Reply to Attn of: SI-E3

Daniel Murray  
Executive Director, Office of Operational Safety  
Commercial Space Transportation  
800 Independence Ave., SW.  
Washington, DC 20591

Dear Mr. Murray:

The National Aeronautics and Space Administration (NASA) accepts the Federal Aviation Administration's (FAA) April 5, 2024 invitation to serve as a Cooperating Agency in the preparation and development of an Environmental Impact Statement (EIS) to evaluate the potential environmental impacts of Space Exploration Technologies, Inc.'s (SpaceX's) proposed launch operations, infrastructure development, and FAA vehicle operator licensing of the Starship-Super Heavy at Launch Complex 39A at the Kennedy Space Center (KSC), Florida.

NASA will participate as generally prescribed in Title 40 of the Code of Federal Regulations (CFR) §1501.8, Cooperating Agencies. It is appropriate for NASA to participate in the development of this EIS because of our jurisdiction by law and special expertise with respect to environmental issues related to launch site operations and operations of reusable suborbital and orbital launch vehicles.

As a Cooperating Agency, NASA will participate in the EIS in support of the FAA evaluation of the SpaceX proposal for infrastructure development and launch and landing operations for the Starship-Super Heavy launch vehicle at KSC, and to support required NASA decision-making per 14 CFR §1216.3. Should your staff have any questions regarding this letter please contact Mr. Donald Dankert at (321) 222-8825 or [donald.j.dankert@nasa.gov](mailto:donald.j.dankert@nasa.gov).

Sincerely,

**JANET PETRO**

Digitally signed by JANET  
PETRO  
Date: 2024.05.20 14:53:36 -04'00'

Janet E. Petro  
Director

MEMORANDUM OF UNDERSTANDING  
BETWEEN  
FEDERAL AVIATION ADMINISTRATION  
OFFICE OF COMMERCIAL SPACE TRANSPORTATION  
AND  
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION  
FOR THE  
SPACEX STARSHIP-SUPER HEAVY LAUNCH PROGRAM AT LAUNCH COMPLEX 39A  
ENVIRONMENTAL IMPACT STATEMENT

**A. Introduction and Purpose**

1. The purpose of this Memorandum of Understanding (MOU) is to establish an agreement between the Federal Aviation Administration Office of Commercial Space Transportation (FAA/AST or Party) and the National Aeronautics and Space Administration (NASA or Party) (collectively, Parties) regarding the roles, responsibilities, conditions, and procedures to be followed in preparing an Environmental Impact Statement (EIS) that complies with applicable statutes and regulations. The FAA/AST is the lead Federal agency for the project, and NASA will be a cooperating agency. FAA/AST is responsible for licensing the operation of commercial launch facilities and the launches/reentries of launch vehicles pursuant to the Commercial Space Launch Act (as amended) of 1984 (51 United States Code (U.S.C.) Subtitle V, Ch. 509, §50901-509231).
2. The FAA/AST is in the early stages of developing an EIS to analyze the potential environmental impacts of issuing a Vehicle Operator License to Space Exploration Technologies Corporation (SpaceX) for the proposed launches of the Starship-Super Heavy vehicle from Launch Complex (LC)-39A at the John F. Kennedy Space Center (KSC) in Florida. To support Starship-Super Heavy launches, the proposed action would also include the construction of launch, landing, and other attendant infrastructure at and in proximity to LC-39A. SpaceX is proposing to land the Super Heavy booster and Starship at LC-39A and conduct expendable and recoverable ocean landings of the Super Heavy booster and Starship. The property to be evaluated for the facilities, infrastructure, and associated operations is currently used by SpaceX for Falcon program launches and is within the boundaries of KSC.
3. The EIS is being prepared as required by the National Environmental Policy Act of 1969, as amended (NEPA) (42 U.S.C. 4321 et seq.), the Council on Environmental Quality (CEQ) Regulations for Implementing the Procedural Provisions of NEPA (40 Code of Federal Regulations parts 1500-1508), and FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures*.<sup>1</sup>

**B. NASA Responsibilities:**

1. NASA agrees to participate as a cooperating agency on the EIS. NASA is the Federal landowner with jurisdiction by law over the subject property for the proposed action, which has been leased by

<sup>1</sup> FAA/AST is aware of the November 12, 2024, decision in *Marin Audubon Society v. Federal Aviation Administration*, No. 23-1067 (D.C. Cir. Nov. 12, 2024). To the extent that a court may conclude that the Council on Environmental Quality (CEQ) regulations implementing NEPA are not judicially enforceable or binding on this agency action, FAA/AST has nonetheless elected to follow those regulations at 40 CFR, Parts 1500-1508, in addition to the FAA's procedures/regulations implementing NEPA in FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures*, to meet the agency's obligations under NEPA, 42 U.S.C. §§ 4321 et seq.



NASA to SpaceX pursuant to negotiated land use arrangements. NASA will provide the FAA/AST with a detailed description of the land use arrangements to the extent relevant for analysis of environmental impacts of the proposed action for the EIS. NASA will provide the FAA/AST with relevant information needed to describe actions that would be taken by NASA as part of implementing the proposed project and will provide special expertise including but not limited to environmental issues concerning the preparation and use of space launch vehicles.

2. NASA will make a good faith effort to provide the FAA/AST with all relevant information and analysis regarding any EIS documentation requirements that are unique to NASA's NEPA implementation procedures (i.e., requirements that normally would not be addressed by the FAA/AST in FAA/AST's implementation of its NEPA requirements). The FAA/AST will in turn provide that information and analysis to the EIS contractor for incorporation into the Draft and Final EISs.
3. NASA will designate a main point of contact on all matters concerning the EIS preparation.
4. NASA will attend meetings (e.g., scoping, Draft EIS, or as may be otherwise required) (in person or via telecon) with Federal, State, regional, and local agencies and interested individuals and groups, where appropriate, to protect NASA's interests or otherwise aid its decision-making process, for the purpose of increasing communication and receiving comments on the project.
5. NASA will provide assistance to FAA/AST in initial scoping communications with consulting agencies where NASA has existing programmatic agreements and biological opinions at LC-39A. In the case of consultations involving amendments or supplements to existing KSC agreements or opinions, NASA may lead the coordination with the consulting agencies, if agreed to by the lead agency.
6. NASA will act as the lead agency for Section 106 consultation. The FAA/AST will coordinate with NASA to provide data and analysis (when applicable) from similar proposed actions to inform Section 106 consultation.
7. NASA will ensure cooperative coordination of efforts and exchange of information with the EIS contractor, using procedures agreed upon by the lead agency.
8. NASA agrees that it will not directly contact the EIS contractor (Leidos) with respect to any requests for preparing or amending portions of the content of the EIS unless first permitted to do so by the FAA/AST. At the request of FAA/AST, NASA will participate in FAA/AST EIS project team meetings with the EIS contractor as may be scheduled during the EIS's preparation.
9. NASA will provide documentation as requested by the FAA for creation of the Administrative Record.

**C. FAA/AST Responsibilities:**

1. As the lead Federal agency in this effort to prepare an EIS, the FAA/AST is ultimately responsible for assuring compliance with the requirements of NEPA.
2. SpaceX, with FAA/AST guidance, will select an appropriate organization to perform as the third-party contractor for the EIS. The organization will be contracted by SpaceX and will receive technical and task performance direction from FAA/AST. The EIS contractor will execute a



disclosure statement specifying that it has no financial or other interest in the outcome of the project.

3. The FAA/AST and the EIS contractor are responsible for identifying and complying with Federal, State, and local laws, regulations, and other authorities that are applicable to completion of the EIS.
4. The FAA/AST will ensure that the EIS contractor will provide any technical and environmental information, data, and reports required for document preparation in a format suitable to the FAA/AST, NASA, and other cooperating agencies as applicable.
5. The FAA/AST will coordinate with NASA on all EIS events, meetings, or milestones in a timely manner prior to any such scheduled event, meeting, or milestone.
6. The FAA/AST and the EIS contractor will share the responsibility for planning; advertising, conducting, and memorializing scoping meetings and public hearings/meetings. The EIS contractor and the FAA/AST will make meeting arrangements, prepare all materials necessary for the meetings, and provide materials to NASA for review. NASA will attend (in person or via telecon) as a cooperating agency.
7. Upon completion of the preliminary Draft EIS, the FAA/AST and NASA, along with any other cooperating agencies, will review the document. NASA will have 10 business days (as specified in the schedule) for the review unless a longer period is agreed upon by the FAA/AST. The FAA/AST, assisted by its EIS contractor, is responsible for printing and distributing the Scoping Summary Report, Draft EIS, and Final EIS.
8. The FAA/AST will release the Draft EIS to the public and to Federal, State, and local agencies for review and comment. The FAA/AST will be responsible for filing the Draft EIS with the U.S. Environmental Protection Agency (EPA). A public comment period of no less than 45 calendar days will be initiated when the EPA publishes the "Notice of Availability" of the Draft EIS in the Federal Register.
9. The FAA/AST will be the recipient of all comments on the Draft EIS resulting from the review and comment period. The FAA/AST will provide copies of all comments to NASA and any other cooperating agencies in a timely manner after the end of the comment period. As appropriate, the FAA/AST and NASA will consider and address any comments on the Draft EIS that are specific to NASA's expertise or apply to land use of property under NASA jurisdictional control.
10. After the close of the Draft EIS review and comment period, the FAA/AST and the EIS contractor will respond to comments and modify the text, as appropriate. Any such modifications will be incorporated in the preliminary Final EIS by the FAA/AST and the EIS contractor.
11. Upon revision of the text, which will include responses to the comments on the Draft EIS, the FAA/AST and NASA, along with any other cooperating agencies, will review and comment on the preliminary Final EIS. NASA will have 5 business days for review (as specified in the schedule) unless a longer period is agreed to by FAA/AST. At the conclusion of its review, NASA will inform the FAA/AST whether its comments and proposed revisions, if any, have been satisfied. The FAA/AST will file the Final EIS with the EPA.

#### D. Disclaimer

This MOU is neither intended nor should otherwise be construed to in any way limit NASA's deliberative process in evaluating the proposed project and the alternatives, including No Action. NASA will make its final decision regarding implementation of the proposed action at KSC based on an independent review of the environmental impacts as analyzed in the Final EIS and comments received during the NEPA process, as well as other factors including, but not necessarily limited to, operational, technical, security, personnel and public safety, and legal considerations.

#### E. Dispute Resolution

1. The Parties agree that if a dispute regarding the provisions of this MOU arises, efforts will be made to settle the dispute cooperatively at the lowest possible staffing level. If efforts to settle at the lowest level are unsuccessful, then the dispute will be elevated to the next higher level of management within each Party. If the next higher level of management for each Party is unable to resolve the dispute, then the dispute will be elevated to the next higher level and will continue to be elevated within the Parties until the dispute is resolved.
2. If a dispute concerns substantive environmental issues addressed in the EIS rather than procedural issues covered by this MOU, NASA has the option of referring an interagency disagreement to the CEQ, consistent with the CEQ regulations implementing NEPA. However, it is recognized that such a referral is reserved as a last resort when Parties have exhausted all reasonable efforts to resolve a dispute.

#### F. Modification and Termination

This MOU may be modified only by written agreement of the Parties, signed and executed by the Parties' authorized representatives.

Each Party to this MOU may terminate this MOU after 30 calendar days prior notice, in writing, to the other Party. During the intervening calendar 30 days, the Parties agree to actively attempt to resolve any disputes or disagreements.

#### G. Duration of MOU

This MOU is effective on the date all parties have signed and will terminate when the Administrative Record is provided to the FAA/AST by the EIS contractor, unless terminated earlier pursuant to Section F above.

#### H. Key Officials

The personnel specified below are considered essential to the successful coordination and communication between the FAA/AST and NASA for the responsibilities and understandings described in this MOU. Upon written notice to the other Party (or Parties) in this MOU, that Party may designate an alternate to act in place of the designated Key Official or designate a new Key Official. Notices from either Party with respect to this MOU must be in writing and delivered by personal or electronic delivery or other appropriate means to the Key Officials of the other Party at the addresses or contact information indicated below.

For NASA:

Name: Donald Dankert

Title: Chief, KSC Environmental Management Branch

Email: [donald.j.dankert@nasa.gov](mailto:donald.j.dankert@nasa.gov)

Phone Number: 321-222-8825

For FAA:

Name: Eva Long

Title: Environmental Protection Specialist

Email: [eva.long@faa.gov](mailto:eva.long@faa.gov)

Phone Number: 321-759-2188

Name: Amy Hanson

Title: Environmental Protection Specialist

Email: [amy.hanson@faa.gov](mailto:amy.hanson@faa.gov)

Phone Number: 847-243-7609

FOR THE FEDERAL AVIATION ADMINISTRATION, OFFICE OF COMMERCIAL SPACE  
TRANSPORTATION:

DATE: \_\_\_\_\_

**DANIEL P** Digitally signed by  
DANIEL P MURRAY  
Date: 2025.02.25  
16:26:12 -05'00'  
SIGNED: **MURRAY**

Daniel P. Murray  
Executive Director, Office of Operational Safety  
FAA/AST

FOR THE NATIONAL AERONAUTICS AND SPACE ADMINISTRATION:

DATE: \_\_\_\_\_

**KELVIN** Digitally signed by  
KELVIN MANNING  
Date: 2025.02.14  
08:33:18 -05'00'  
SIGNED: **MANNING**

Kelvin Manning  
Acting Director,  
Kennedy Space Center



## A.3.5 Department of the Air Force



U.S. Department  
of Transportation  
**Federal Aviation  
Administration**

Commercial Space Transportation  
800 Independence Ave., SW.  
Washington, DC 20581

April 5, 2024

Mr. Robert E. Moriarty  
Deputy Assistant Secretary of the Air Force (Installations)  
SAF/IEI  
1665 Air Force Pentagon  
Washington, DC 20330-1665

Dear Mr. Moriarty:

At the request of the National Aeronautics and Space Administration, the Federal Aviation Administration (FAA) Office of Commercial Space Transportation (AST) is developing an Environmental Impact Statement (EIS) to analyze the potential environmental impacts of issuing a Vehicle Operator License to Space Exploration Technologies Corporation (SpaceX) and approving associated airspace closures for Starship-Super Heavy launch operations from Launch Complex (LC)-39A at Kennedy Space Center (KSC) in Florida. In addition to launch operations, the EIS will consider the environmental impacts associated with the construction of launch, landing, and other attendant infrastructure at and in proximity to LC-39A. SpaceX operations would also include landings the Super Heavy booster at LC-39A and conducting expendable and recoverable ocean landings of the Super Heavy booster (Atlantic Ocean) and Starship (Pacific and Indian Oceans).

We request your participation as a cooperating agency in the development of this EIS as outlined in the Council on Environmental Quality regulations (40 CFR §1501.6). We look forward to you providing relevant expertise regarding your authority over space-related operations and information to facilitate the National Environmental Policy Act process. Please respond regarding your interest in participating as a cooperating agency at your earliest convenience.

Please feel free to contact Ms. Stacey Zee, Manager, Operations Support Branch, from my staff at (202) 267-9305 or by email at [Stacey.Zee@faa.gov](mailto:Stacey.Zee@faa.gov) with any questions.

Sincerely,

**DANIEL P MURRAY** Digitally signed by DANIEL P MURRAY  
Date: 2024.04.05 16:55:51 -04'00'

Daniel P. Murray  
Executive Director, Office of Operational Safety

cc:

Mr. Jack Bush, HAF/A4CP  
Mr. John Nash, HAF/4CPI  
Ms. Sherry Thrash, AFCEC/CIEE  
Mr. Michael Blaylock, SLD45/CEIE



DEPARTMENT OF THE AIR FORCE  
WASHINGTON DC

OFFICE OF THE ASSISTANT SECRETARY

15-May-2024

SAF/IEI  
1665 Air Force Pentagon  
Washington DC 20330-1665

Daniel P. Murray  
Executive Director, Office of Operational Safety  
Federal Aviation Administration  
Commercial Space Transportation  
800 Independence Avenue, SW  
Washington, DC 20591

Dear Mr. Murray:

The Department of the Air Force (DAF) accepts the Federal Aviation Administration's (FAA's) Office of Commercial Space Transportation's (AST's) invitation to become a Cooperating Agency on the Environmental Impact Statement (EIS) evaluating the potential environmental impacts associated with Starship-Super Heavy launch operations from Launch Complex 39A at Kennedy Space Center (KSC), consistent with the 31 Jan 2023, "Memorandum of Understanding Between DAF and FAA on Environmental Review Process for Commercial and Reentry Operations."

This subsequent response reinforces DAF's participation as generally prescribed in President's Council on Environmental Quality, National Environmental Policy Act (NEPA) implementing regulations, 40 C.F.R. § 1501.8, *Cooperating Agencies* and 40 C.F.R. § 1503.2, *Duty to Comment*. DAF understands that as a Cooperating Agency it will be expected to participate in various portions of NEPA analysis and documentation development and will, to the extent practicable:

- a. Participate in the EIS process at the earliest practicable time.
- b. Consult with FAA in developing the milestone schedule.
- c. Participate in the scoping process.
- d. Participate in coordination meetings and joint field reviews of the document.
- e. Review and comment on early project information to reflect the views and concerns of the DAF, proposed action, and the anticipated impacts and mitigation measures.

FAA's timely delivery of data and information needed to fulfill the DAF's Cooperating Agency role will help avoid unnecessary delays. In return, DAF will respond in a prompt manner.

Should you or your staff have further questions regarding DAF's participation, our points of contact at Headquarters Air Force and Space Force are Mr. Jack Bush, 703-867-1082, (jack.bush@us.af.mil) and Colonel Paul Filcek, 703-545-5633, or paul.filcek@spaceforce.mil. For day-to-day activities, please contact Ms. Molly Thrash at (480) 740-1234 or sherry.thrash@us.af.mil.

Sincerely,

MORIARTY.ROBE (Digitally signed by  
MORIARTY.ROBERT E 1012283  
RT.E 1013267584  
DN: cn=2024.05.15.20:08:17-04:00)

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

Attachment:  
Memorandum of Understanding between FAA and DAF dated 31 Jan 2023

cc:  
SAF/GCN  
AF/A4C  
SF/A4C/A3I  
AF/JAOE  
AFCEC/CI  
AFIMSC/Det 1  
CCSFS/45th

### A.3.6 Government-to-Government Tribal Correspondence

The FAA initiated government-to-government coordination with the following federally recognized Native American tribal governments:

- Seminole Tribe of Florida
- Miccosukee
- Muscogee (Creek) Nation
- Seminole Nation of Oklahoma

Letters were sent to initiate this coordination on January 24, 2025. An example letter is provided on the following pages. Although the tribes did not submit a formal written response to the FAA letter, they did indicate in subsequent coordination that their engagement in the Section 106 consultation was sufficient and they were not requesting formal government-to-government consultation for this project.





U.S. Department  
of Transportation  
**Federal Aviation  
Administration**

Office of Commercial Space Transportation

800 Independence Ave., SW  
Washington, DC 20591

January 17, 2025

David Hill  
Muscogee (Creek) Nation, Oklahoma  
Principal Chief  
P.O. Box 580  
Okmulgee, OK 74447  
dhill@mcn.nsn.gov

**RE: Government-to-Government Consultation for SpaceX Starship-Super Heavy Launch and Reentry Vehicles at Launch Complex 39A at the Kennedy Space Center, Merritt Island, Florida**

Dear Principal Chief Hill:

The purpose of this letter is to initiate government-to-government consultation with the Muscogee (Creek) Nation, Oklahoma for the above-referenced project. An additional purpose of this letter is to determine whether the Muscogee (Creek) Nation, Oklahoma would like to consult on the National Environmental Policy Act (NEPA) analysis.

Space Exploration Technologies Corporation (SpaceX) is proposing to launch, land, and construct associated infrastructure at and in proximity to Launch Complex 39A (LC-39A) for Starship-Super Heavy (SSH) operations at the National Aeronautics and Space Administration (NASA) Kennedy Space Center (KSC) in Brevard County, Florida (see Attachment 1 and Attachment 2). To conduct SSH launch and landing operations at LC-39A, SpaceX must obtain a Vehicle Operator License from the Federal Aviation Administration (FAA). Issuing a Vehicle Operator License is considered a major federal action under the NEPA and requires an environmental review. Under the supervision of the FAA Office of Commercial Space Transportation, SpaceX is preparing a draft Environmental Impact Statement (EIS) to evaluate the potential impacts of associated infrastructure and ground, launch, and reentry operations associated with SSH at LC-39A. The EIS will conform to the FAA's NEPA implementing policy, FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures*. The FAA is acting as the lead federal agency for development of the EIS and government-to-government coordination. NASA is the lead federal agency for Section 106 consultation which will be covered in a separate letter sent from NASA. The completion of the environmental review process does not guarantee that the FAA will issue a Vehicle Operator License to SpaceX for SSH at LC-39A. SpaceX's license application must also meet FAA safety, risk, and financial responsibility requirements under 14 Code of Federal Regulations Chapter III, Subchapter C.

Please let us know if your Tribe would like to consult regarding the broader range of impacts assessed under NEPA. Early identification of Tribal concerns will allow the FAA to consider ways to avoid and minimize potential impacts to Tribal resources and practices.

If you have any questions or need further information on the project, please contact Stacey Zee at 202-267-9305 or via email at [Stacey.Zee@faa.gov](mailto:Stacey.Zee@faa.gov). Information is also available on the project website: [https://www.faa.gov/space/stakeholder\\_engagement/spacex\\_starship\\_ksc/](https://www.faa.gov/space/stakeholder_engagement/spacex_starship_ksc/).

Your timely response will greatly assist us in incorporating your comments into project planning. Please respond to Ms. Zee at your earliest convenience.

Sincerely,

**DANIEL P  
MURRAY**

Digitally signed by DANIEL P  
MURRAY  
Date: 2025.01.17 12:17:37  
-05'00'

Daniel P. Murray  
Executive Director, Office of Operational Safety

Enclosures:

**Attachment 1:** Supplemental Background Information for the SpaceX Starship Super Heavy Launch and Reentry Vehicles Proposed Action at Launch Complex 39A, Kennedy Space Center

**Attachment 2:** LC-39A Figures

cc: Turner Hunt, Tribal Historic Preservation Officer  
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**Attachment 1 – Supplemental Background Information for the SpaceX Starship-Super Heavy Launch and Reentry Vehicles Proposed Action at Launch Complex 39A, Kennedy Space Center**

The FAA is currently evaluating SpaceX's proposal to operate the Starship-Super Heavy launch vehicle at the National Aeronautics and Space Administration (NASA) Kennedy Space Center (KSC). To conduct Starship-Super Heavy launch and landing operations at LC-39A, SpaceX must obtain a Vehicle Operator License from the FAA Office of Commercial Space Transportation. LC-39A is a KSC-owned, SpaceX-leased launch site located on northern KSC property, approximately 3 miles east of NASA's Vehicle Assembly Building (Figure 1). LC-39A currently supports Falcon 9 and Falcon Heavy launches. In 2019, NASA completed the *Final Environmental Assessment for the SpaceX Starship and Super Heavy Launch Vehicle at Kennedy Space Center (KSC)* (NASA, 2019) (referred to as "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. Since the 2019 NASA EA, SpaceX has undertaken infrastructure improvements at LC-39A (e.g., construction of a launch mount) and has begun developing a site within the perimeter of LC-39A for Starship-Super Heavy launch operations intended for future Starship-Super Heavy missions. However, the Starship-Super Heavy concept of operations has been updated which includes additional launch infrastructure, evolved launch vehicle design, higher launch tempo, and return to launch site booster recovery. Currently, SpaceX is planning to conduct up to 44 Starship-Super Heavy launches per year from LC-39A. SpaceX would continue to launch Falcon missions at LC-39A while Starship-Super Heavy is operational.

The fully integrated launch vehicle is comprised of two stages: Super Heavy is the first stage (or booster), and Starship is the second stage. Pre-flight operations could include ground testing activities, tanks testing, spin-prime tests, mission rehearsals (i.e., dry and wet dress rehearsals) and static fire engine tests. Starship-Super Heavy would launch from LC-39A up to 44 times per year and occur at any time of day or night. Each Starship-Super Heavy orbital launch would include landing Super Heavy at LC-39A, downrange in the Atlantic Ocean on a droneship (mobile vessel not attached to the sea floor), or expended in the Atlantic Ocean, no closer than approximately 5 nautical miles off the coast. Starship could land at LC-39A or on a droneship in the broad open ocean between 55 degrees south latitude and 55 degrees north latitudes. While SpaceX continues to prove accuracy and capability, SpaceX could require expending Starship during early program launches in the broad open ocean. Starship could be expended by a controlled descent that would result in Starship's intact impact with the ocean's surface (hard or soft landing) or an uncontrolled descent resulting in breakup during atmospheric reentry.

SpaceX is proposing to construct an additional tower within the LC-39A fence line to support landing operations. SpaceX would construct onsite facilities for propellant generation and propellant storage. Storage tanks for LOX and liquid methane are under construction as approved under the 2019 NASA EA. SpaceX is also proposing to construct additional stormwater/deluge ponds, if needed, to manage water associated with deluge and stormwater within LC-39A.

The area of potential effects (APE) considers any physical, visual, or auditory effects that the project may have on historic properties<sup>1</sup>. Ground-disturbing and landscape-altering actions are limited to LC-39A (8BR01686), a historic district listed on the National Register of Historic Places (NRHP) and subjected to Historic American Engineering Record (HAER) survey in 2010, and has been previously documented as adequately mitigated as described in Stipulation V.A.1 of the 2009 *Programmatic Agreement Among the National Aeronautics and Space Administration, John F. Kennedy Space Center, Advisory Council on Historic Preservation, and the Florida State Historic Preservation Officer: Regarding Management of Historic Properties at the Kennedy Space Center*. As such, the APE for the current project is predicated on the auditory effects of the SSH launch activity as well as the overpressure effects of the sonic boom generated during atmospheric reentry. FAA guidance stipulates an unweighted Lmax 130 decibel (dB) threshold for launch effects and a 2.0 pounds per square foot (psf) threshold for effects from the sonic boom. Based on this information, and previous research regarding rocket engine noise and vibration effects to structures, the APE was established as any area subjected to greater than or equal to 2.0 psf sonic booms (see Figure 2), an area that also encompasses the 130 dB threshold for launch effects.

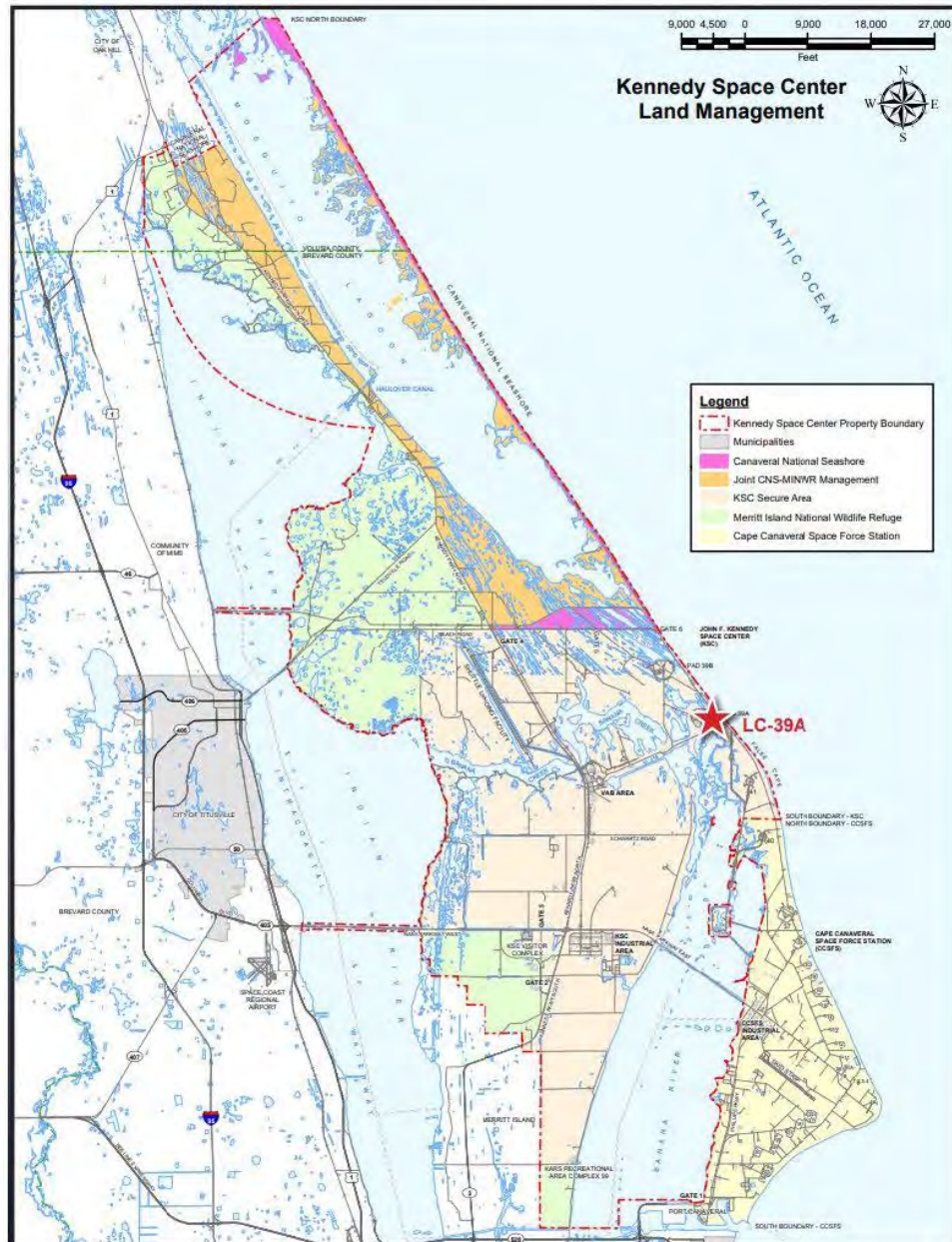
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<sup>1</sup> Historic property means any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the National Register criteria. 36 CFR 800.16(l)(1)

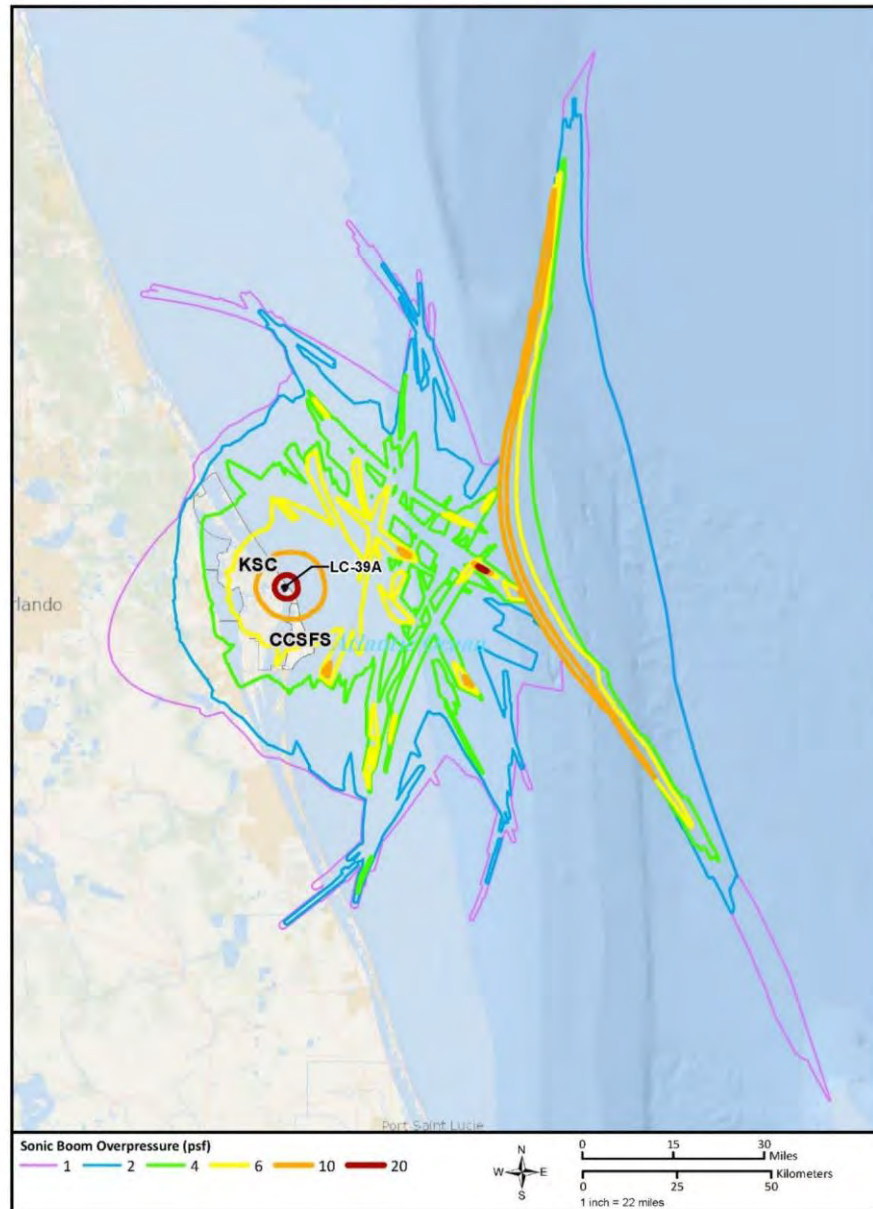


**Attachment 2 – LC-39A Figures**

Figure 1. Location of LC-39A



**Figure 2. Sonic Boom Overpressure map for the Project area. The APE is defined as the area within the 2 psf contour.**



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