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

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1. PURPOSE AND SCOPE

1.1. This new Memorandum of Understanding (MOU) explains the respective roles and responsibilities of the Federal Aviation Administration (FAA) and the Department of the Air Force (DAF), (collectively referred to as the “Parties,” and individually as “Party”) regarding the Environmental Review Process for commercial space launch and reentry operations. The FAA's Federal actions under this MOU that are subject to environmental review include the issuance of launch and reentry site operator licenses, launch and reentry licenses, and experimental permits to Commercial Launch/Reentry Operators. The DAF’s Federal actions include the issuance of leases, licenses, and approvals to Commercial Launch/Reentry Operators for the utilization of real property where commercial launch or reentry operations would occur. DAF’s actions also may include the issuance of funds for commercial launch or reentry operations from Federal or non-Federal launch/reentry sites.

1.2. The purpose of this MOU is to streamline and simplify the Parties’ Environmental Review Processes and minimize the regulatory burden on the U.S. commercial space industry by clearly delineating, but not superseding, each Federal agency’s environmental-related requirements and oversight responsibilities, thereby minimizing overlap and duplication. This MOU applies to potential FAA-licensed and permitted launch/reentry operations and launch/reentry site operations that occur on, originate from, or return to the DAF Cape Canaveral Space Force Station (CCSFS) or Vandenberg Space Force Base (VSFB) for which DAF has a corresponding or related major Federal action. This MOU is not intended to memorialize all roles and responsibilities of the respective agencies. Rather, it focuses on those roles and responsibilities that are unique to the relationship between the Parties and consistent with the goal of interagency cooperation detailed in 40 CFR § 1500.5(d) of the Council on Environmental Quality’s (CEQ) National Environmental Policy Act (NEPA) Implementing Regulations.

1.3. This MOU does not document, provide for, or commit to the exchange of funds or personnel between the Parties. Each party is responsible for ensuring its requirements are fully funded.

2. AUTHORITIES

2.1. The DAF is authorized to enter into this MOU in the exercise of its responsibility to conduct the affairs of the DAF in support of commercial launch and reentry activity as authorized by 10 U.S.C. § 2276, Commercial Space Launch Cooperation, and Department of Defense Instruction (DoDI) 3100.12, Space Support. In addition, as the owner and operator of CCSFS and VSFB, the DAF has authority over space-related operations, to include ground-based operations on those installations.

2.2. The FAA is authorized to enter this MOU in the exercise of its responsibility to license and regulate commercial space transportation activities established by 51 U.S.C., Chapter 509. The Office of Commercial Space Transportation (AST) within the FAA acts on behalf of the Secretary of Transportation

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1 Major Federal action is defined in 40 CFR § 1508.1(q).

2 To ensure coordinated and timely reviews, CEQ’s Implementing Regulations for NEPA also allow, “to the extent practicable,” agencies to consider issuing a joint decision document under 40 CFR § 1501.7(g). Consistent with this Agreement, the lead and cooperating agencies may consider issuing a joint decision document as appropriate under 40 CFR § 1501.7(g).
in carrying out the Department of Transportation’s statutory responsibilities regarding the regulation of commercial launches and reentries, as well as operation of commercial launch and reentry sites.

3. DEFINITIONS

The following terms are defined in 51 U.S.C. § 50902: launch, person, reentry, and reentry site.

Additional terms used in this MOU are defined as follows:

3.1. **Commercial Launch/Reentry Operator**: Any person who conducts or proposes to conduct a launch or reentry under 51 U.S.C. Chapter 509.

3.2. **Cooperating Agency**: Any Federal agency (and a State, Tribal, or local agency with agreement of the Lead Agency) other than a Lead Agency that has jurisdiction by law or special expertise with respect to any environmental impact involved in a proposal (or a reasonable alternative) for legislation or other major Federal action that may significantly affect the quality of the human environment.

3.3 **DAF Installation**: Any property or facility, and corresponding air and sea space, subject to the jurisdiction of the DAF identified in Section 1.2.

3.4 **Environmental Review Process**: All coordination, planning, analysis, consultation and documentation activities that are necessary for compliance with the following, and must be completed before the Parties’ actions can be implemented: NEPA (42 U.S.C. § 4321 et seq.); CEQ NEPA Implementing Regulations (40 CFR §§1500–1508); FAA Order 1050.1F and DAF Environmental Impact Analysis Process (EIAP) (32 CFR § 989); other Federal laws, including but not limited to, certain special purpose laws such as Section 7 of the Endangered Species Act (16 U.S.C. §1536), Section 106 of the National Historic Preservation Act (54 U.S.C. § 306108), and Section 4(f) of the Department of Transportation Act of 1966 (49 U.S.C. § 303); and other applicable authorities such as those cited in Section 4.4, executive orders (EOs), and administrative directives.

3.5 **Launch/Reentry Site Operator**: Any person who operates or proposes to operate a launch/reentry site on or outside a DAF Installation using facilities under its ownership or control and offers use of the site to launch/reentry operators other than itself under a license issued by the FAA in accordance with 51 U.S.C. Chapter 509.

3.6 **Lead Agency**: The agency or agencies, in the case of joint lead agencies, preparing or having taken primary responsibility for the Environmental Review Process, as defined in Section 3.4.

4. TERMS OF AGREEMENT

4.1. Regardless of where launch/reentry operations occur, originate, or return, Federal environmental requirements apply when a major Federal action is taken. To eliminate unnecessary duplication, reduce paperwork, and reduce delay, the Parties will develop environmental documentation to comply with such requirements. Documentation will be developed and processed in
accordance with applicable agency NEPA-implementing orders, instructions, or directives and other written requirements.

4.2. Unless the agencies agree otherwise for launch/reentry operations occurring on a DAF Installation, DAF will act as the Lead Agency for the Environmental Review Process. The FAA will act as a Cooperating Agency pursuant to 40 CFR § 1501.8 when responsible for issuing a license or permit for the launch/reentry operations. For launch/reentry operations occurring outside DAF Installations, the FAA will act as the Lead Agency when responsible for issuing a license or permit for the launch/reentry operations.

4.3. The Lead Agency will coordinate with the Cooperating Agency to ensure the Cooperating Agency’s NEPA and public notice requirements are satisfied. The Cooperating Agency will take responsibility for ensuring that the Lead Agency is aware of requirements unique to the Cooperating Agency. The Cooperating Agency must provide the information to satisfy such unique requirements or assist the Lead Agency in ensuring the Commercial Launch/Reentry Operator provides the information necessary to meet those requirements. In some situations, the Lead Agency or Cooperating Agency may require the Commercial Launch/Reentry Operator to conduct the analyses, under the oversight of the agency requesting the analyses, to satisfy the requirements.

4.4. The Lead Agency will take responsibility for complying with all applicable special purpose laws and EOs, including but not limited to the Coastal Zone Management Act (16 U.S.C. § 1451 et seq.); Endangered Species Act (16 U.S.C. § 1531 et seq.); EO 11988, Floodplain Management; EO 11990, Protection of Wetlands; Magnuson-Stevens Fishery Conservation and Management Act (16 U.S.C. § 1801 et seq.); Marine Mammal Protection Act (16 U.S.C. § 1361 et seq.); Section 106 of the National Historic Preservation Act (54 U.S.C § 306108); General Air Conformity Planning IAW 42 USC §§ 7401-7671q, and Conformity Determinations promulgated as follows: 40 CFR Part 51, Subpart W, Determining Conformity of General Federal Actions to State or Federal Implementation Plans and 40 CFR Part 93, Subpart B, Determining Conformity of General Federal Actions to State or Federal Implementation Plans. The Lead Agency will provide the Cooperating Agency full opportunity to participate in the consultations with resource agencies to ensure that the Cooperating Agency’s actions are fully covered in both the consultation and the resulting NEPA document.

4.5. The Lead Agency will ensure that the party to this MOU that may act as the Cooperating Agency is provided an opportunity for early involvement in the Environmental Review Process. The Lead Agency will host a program introduction meeting with the Cooperating Agency prior to determining the level of environmental review required for the project. In addition, to help avoid unnecessary delay in the Environmental Review Process, the agencies will establish a mutually agreed-upon schedule that reflects appropriate time limits to ensure that required actions are taken on a timely basis. The schedule will set milestones for all environmental reviews and authorizations required for implementation of the action, and will accommodate all agencies’ requirements (e.g., agencies’ NEPA-implementing procedures). Each agency will promptly notify the other agency of any difficulty with meeting scheduled deadlines or any need to revise the schedule.

4.6. Under this MOU, the Lead Agency is responsible for working with the Commercial Launch/Reentry Operator or Launch/Reentry Site Operator to prepare and circulate environmental documentation to the party to this MOU that is acting as a Cooperating Agency. Timelines for Cooperating Agency review will
be agreed to prior to the Cooperating Agency review. As an initial task, the Lead Agency will recommend to the Cooperating Agency its preferred path to NEPA compliance and provide a date no sooner than 14 business days by which the Lead Agency must receive the Cooperating Agency’s concurrence or proposal for an alternative path to NEPA compliance. If the Cooperating Agency proposes an alternative path to NEPA compliance, the Lead Agency must respond with either a rejection or acceptance within 7 business days. If the Lead Agency rejects the alternative path forward or does not respond within 7 business days, either agency may elevate the matter in accordance with Section 6 of the MOU. To ensure that the Parties and the affected Commercial Launch/Reentry Operator or Launch/Reentry Site Operator have a clear understanding of each agency’s Environmental Review Process requirements, any final communication to the affected Commercial Launch/Reentry Operator or Launch/Reentry Site Operator regarding the required level(s) of NEPA review must be coordinated between both Parties. Either Party may hold preliminary discussions with the Commercial Launch/Reentry Operator or Launch/Reentry Site Operator but shall make clear that any final decisions are subject to coordination between the Parties.

4.7. In determining the appropriate level of NEPA review, the Parties will consider the availability of Categorical Exclusions (CATEXs) for actions falling under this MOU. Prior to applying a CATEX, the Lead Agency must consult with the Cooperating Agency to determine whether both agencies can make a similar determination with their own CATEXs or if a CATEX determination can be adopted by either agency. If the Cooperating Agency cannot make a similar determination with its own CATEX or a CATEX determination cannot be adopted, the Lead Agency will consider developing the level of NEPA review necessary to satisfy the Cooperating Agency’s NEPA-implementing order or directive. If the Lead Agency decides to rely on a CATEX for its action and the Cooperating Agency cannot rely on its own CATEX or adopt a CATEX determination for its action, the Cooperating Agency may be required to lead its own separate Environmental Review Process to satisfy its environmental obligations.

4.8. The Lead Agency may require a Commercial Launch/Reentry Operator or Launch/Reentry Site Operator to prepare, with Lead Agency oversight, initial environmental documentation or provide information for the Lead Agency to prepare an Environmental Assessment (EA) and Finding of No Significant Impact (FONSI), or Draft and Final EIS and Record of Decision (ROD), with associated mitigation plans. The Lead Agency may also require a Commercial Launch/Reentry Operator or Launch/Reentry Site Operator to fund and prepare, with Lead Agency oversight, documentation or provide information for the Lead Agency to process and obtain relevant environmental permits and otherwise demonstrate compliance with other environmental laws, regulations, EOs, and environmental commitments made in associated NEPA documents.

4.9. The Lead Agency will ensure that the party to this MOU that acts as a Cooperating Agency is notified of any substantial changes to the proposed launch/reentry operations and the environmental impacts of the launch/reentry operations.

4.10. For launch/reentry operations on a DAF Installation, the DAF will be the agency responsible for coordinating access to the installation for Federal, State, and local environmental regulatory agencies to verify compliance with environmental requirements. The Parties will be responsible for ensuring that launch/reentry operations are consistent with the provisions of and the environmental commitments
made in the associated NEPA document(s) pursuant to each agency's oversight responsibilities and authorization.

4.11. For launch/reentry operations occurring outside a DAF Installation, the FAA, when responsible for issuing a license for the launch/reentry operations, will be the agency responsible for ensuring that operation of the launch/reentry site and launch/reentry operations are consistent with the provisions of and the environmental commitments made in the associated NEPA documents.

5. IMPLEMENTATION

5.1. The Parties should use this MOU as a basis for any subsequent written implementing procedures to carry out their respective responsibilities in interacting with Commercial Launch/Reentry Operators and Launch/Reentry Site Operators regarding the Environmental Review Process. The primary point of contact (POC) for the DAF and the Senior Agency Official (SAO) shall be the Acting Assistant Secretary of the Air Force, Energy, Installations, and Environment (SAF/IE), Edwin Oshiba, with delegated day-to-day authorities to the Deputy Assistant Secretary of the Air Force (Installations) SAF/IEI), Mr. Robert Moriarty. The primary POC for the FAA shall be the Associate Administrator for Commercial Space Transportation, Kelvin Coleman, and the alternate POC for the FAA shall be the Deputy Associate Administrator for Commercial Space Transportation, Michael O'Donnell. Together, the POCs shall be mutually responsible for the successful execution of this agreement. All correspondence to be sent and notices to be given pursuant to this MOU will be addressed, if to the DAF, to Mr. Devin Scherer and, if to the FAA to the Executive Director of the Office of Operational Safety, Daniel Murray, or as may from time to time otherwise be directed by the Parties.

6. RESOLUTION OF DISAGREEMENTS

6.1. The Parties to this MOU will seek to resolve any issues or disputes related to the Environmental Review Process at the earliest possible time at the project level through staff who have day-to-day involvement in the project. If the Parties fail to reach agreement or cannot align paths to compliance, the project level staff will elevate the issue or dispute to their immediate supervisors. Unless the immediate supervisors from both agencies agree that a resolution is forthcoming, if no resolution has been reached at the end of 30 calendar days following the elevation of the issue or dispute to the immediate supervisors, then the agencies will elevate the issue to the signatories of this MOU. At any time, the FAA Office of Chief Counsel, DAF Office of the General Counsel, and the Office of the Judge Advocate General may be consulted for assistance with disputes. The Lead Agency may continue the fulfillment of Environmental Review Process requirements but may not complete the Environmental Review Process during the resolution process. The Lead Agency will notify the Cooperating Agency if the Lead Agency continues with the Environmental Review Process during the resolution process.

7. PERSONNEL

7.1. Each Party is responsible for all costs of its personnel, including pay and benefits, support, and travel. Each Party is responsible for supervision and management of its personnel.
8. **EFFECTIVE DATE, AMENDMENT, AND TERMINATION**

8.1. This MOU takes effect beginning on the day after the last Party signs and expires ten years from the date of the last signature. It will be reviewed every five years in its entirety by the assigned points of contact or designee.

8.2. If either Party determines that it is necessary to amend this MOU, it will notify the other Party in writing of the specific change(s) desired, with proposed language and the reason(s) for the amendment. The proposed amendment will become effective upon written agreement of both Parties, duly signed by their authorized representatives.

8.3. This MOU may be terminated by either Party by giving written notice of least 60 calendar days to the other Party. The MOU may also be terminated at any time upon the mutual written consent of the Parties.

8.4. This MOU is not transferable except with the written consent of the Parties.

**SIGNED:**

[KELVIN B. COLEMAN]
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Commercial Space Transportation

[EDWIN H. OSHIBA, SES, DAF]
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Energy, Installations & Environment