

INTERAGENCY ANNEX
BETWEEN
THE NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER
AND
UNITED STATES DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
UNDER
NONREIMBURSABLE UMBRELLA INTERAGENCY AGREEMENT
FOR
COMMERCIAL LAUNCH AND REENTRY ACTIVITY ON NASA RANGES AND
INSTALLATIONS

ARTICLE 1. PURPOSE AND AUTHORITIES

The purpose of this Annex is to implement and clarify the range safety authorities, responsibilities, and roles of National Aeronautics and Space Administration (NASA) Kennedy Space Center (KSC) and the Department of Transportation (DOT) Federal Aviation Administration (FAA) Office of Commercial Space Transportation (AST) (collectively, the “Parties”) for commercial launch and reentry activities at KSC, in implementation of the Nonreimbursable Umbrella Interagency Agreement Between the National Aeronautics and Space Administration and Federal Aviation Administration for Commercial Launch and Reentry Activity On NASA Ranges and Installations (hereinafter referred to as “Umbrella IAA” or “IAA”). The goal of this Annex is to eliminate duplicative requirements placed on commercial launch and reentry operators who conduct launch or reentry activities on KSC property. There is no research or testing associated with this Annex.

Consistent with the Umbrella IAA, KSC enters into this Annex in accordance with the National Aeronautics and Space Act, Other Transactions Authority (OTA), 51 United States Code (U.S.C.) § 20113(e), and FAA enters into this Annex in accordance with 49 U.S.C. § 106(l)(6) and 106(m).

ARTICLE 2. RESPONSIBILITIES

A. FAA Authority and Responsibilities:

1. In accordance with 51 U.S.C. § 50907, the FAA may place an officer or employee of the United States Government or another individual as an observer at a launch site or reentry site the licensee uses.

B. NASA KSC Authority and Responsibilities:

1. The KSC Center Director is responsible and accountable for the safety and health aspects of all activities assigned to their Center as defined in (NPD) NASA Policy Directive 1000.3 (The NASA Organization) (*IAA Article 4 C(2)(b)*). Activities conducted under this responsibility shall not conflict or supersede IAA Article 4 B, C and F(2).

C. FAA will:

1. Accept the use of NASA KSC's ground safety processes, requirements, and oversight by operators conducting licensed activities from the NASA KSC federal site and commercial spaceports on NASA KSC property in accordance with FAA regulations, guidance, and policy, including 14 CFR 450.37, 14 CFR 450.179(b), and the Federal Register Notice at 90 FR 19776 (*IAA Article 4 E(1)*).
2. Through its Safety Authorization Division (ASA-100), expeditiously inform NASA KSC Safety and Mission Assurance Technical Integration Branch (SA-E3) concerning FAA licensed or permitted operations or applications that could operate from NASA KSC property, use NASA KSC property, or could negatively affect NASA KSC property, including instances in which (*IAA Article 4 E(2)*):
 - a. A prospective applicant who intends to operate from KSC enters into pre-application consultation with the FAA;
 - b. An applicant who intends to operate from KSC submits an application for a license or permit; or
 - c. FAA accepts an application for review from an applicant who intends to operate from KSC.
3. Ensure the (ASA-200) flight safety analysis evaluation process verifies NASA KSC site specific data (population, meteorological, building structures, critical assets, etc.) are the latest available from NASA KSC SA-E3 for each license determination and subsequent modification (*IAA Article 4 H(3)*).
4. Provide SA-E3 the scope of license determination for launches and reentries at NASA KSC within 72 hours of determination of the scope of license, such that NASA KSC can understand when FAA oversight begins and ends for licensed activities conducted on NASA KSC property.

D. FAA will use reasonable efforts to:

1. Encourage operators to draft an agreement, or chain of agreements, for requested services from NASA KSC Spaceport Development Division (SI-A2) prior to application acceptance.
2. Coordinate directly with the licensee for FAA access to the licensee's facilities on KSC.

E. NASA KSC will:

1. Identify to FAA (ASA-100) critical assets at KSC as well as identify if a more stringent risk criteria is necessary to protect the national interests of the United States, per 14 CFR 450.101(a)(4)(iii) (*IAA Article 4 F(3)*).
2. As soon as possible communicate with the FAA should any proposed FAA licensed activities create an issue that impacts public safety or the safety of property as determined by NASA KSC leadership. (*IAA Article 4 H(4)*). Communication under this paragraph and IAA Article 4 H(4) will occur between NASA KSC (SA-E3) (Range Flight Safety Lead) and FAA (ASA-300).

- a. When notified of an FAA commercial activity at KSC, provide to FAA (ASA-100) any applicable tenant lease agreements defining NASA KSC safety requirements and any related service.
2. Provide ground safety oversight for licensed or permitted activities on NASA KSC property IAW FAA regulations and policy, including 14 CFR 450.37, 14 CFR 450.179(b), Federal Register Notice at 90 FR 19776. NASA KSC ground safety oversight will be documented in established agreements with commercial launch providers. (*IAA Article 4 G(1),G(6)*).
3. During certain hazardous operations where a hazard may extend beyond the licensee's fence line, establish roadblocks, and access control at applicable locations consistent with the time, size, and shape as documented in the operator's license application. Access control points will be located on primary thoroughfares to ensure personnel do not enter the restricted zone associated with the hazardous operation (*IAA Article 4 G(3)*).
4. Coordinate hazard areas with FAA (ASA-100) application lead that are inconsistent with the time, size, and shape documented in an operator's license. (*IAA Article 4 G(3)*).
5. Make launch hazard announcements to personnel on KSC as deemed necessary by NASA KSC (*IAA Article 4 C(2)(b)*).
6. IAW IAA Article 4 H(6)(a), will lead an investigation for mishaps that occur as a result of an activity that was not licensed or permitted by the FAA (*IAA Article 4 H(6)(a)*).
7. Review crew family visitor requests within hazardous areas and document measures which codify the authorization including applicable restrictions prior to beginning of licensed activities (*IAA Article 4 C(2)(b)*).

F. NASA KSC will use reasonable efforts to:

1. Provide to the FAA (ASA-100) and CSWG any changes to NASA KSC safety procedures, analysis, and products at least 30 days prior to executing those changes (unless it is deemed an emergency requiring an immediate change) and will comply with the requirements contained in the updated FAA Determination Letter for Ground Safety (Appendix A), if applicable (*IAA Article 4 H(3)*).
2. Coordinate with FAA (ASA-100) and CSWG, no later than 20 days prior to publication of NASA KSC ground and range flight safety policy requirements relevant to licensed or permitted activities by NASA KSC (SA-E3) (*IAA Article 4 H(3)*).

G. NASA KSC and FAA will use reasonable efforts to:

1. Coordinate with respect to a launch or reentry operator's request for relief (i.e., equivalent level of safety or waiver) from a common launch or reentry safety requirement, as *(IAA Article 4 H(5))*:
 - a) The NASA KSC Safety and Mission Assurance Division Range Safety Lead (SA-E3) and the applicable (ASA-100) staff will forward relevant requests to each other, as notification, as soon as reasonably practicable (within 1-3 business days) and prior to responding to the launch or reentry operator.
 - b) Each party may request a meeting, as needed, to discuss the content of the relief request as it pertains to each party's authorities and responsibilities as defined in IAA Article 4 Sections B and C.
 - c) The FAA is the sole authority for approving public safety requests for relief applicable to licensed activities conducted on NASA KSC property.
 - d) The FAA does not have the authority to approve requests for relief to applicable NASA KSC safety requirements for launch or reentry operator activities conducted outside of the FAA's scope of license determination under 14 CFR 450.3 *(IAA Article 4 H(5))*.
2. Expeditiously exchange information between the Parties pursuant to IAA Article 4 H(3), to include the rationale concerning FAA determinations on operator compliance and determinations that pertain to the safety of NASA KSC workforce, tenants, and guests on NASA KSC property. To implement this, the FAA will provide NASA KSC (SA-E3) access (read/upload only) to the applicable FAA SharePoint site or subsequent platforms that ensures security and proprietary requirements *(IAA Article 4 H(3))*.
3. Share known facts regarding launch and reentry operations and mishaps that occur at the launch/reentry site and associated final reports; FAA (ASA-100/300). will notify NASA KSC (SA-E3) prior to notifying an operator of an FAA return to flight determination for flight operations on NASA KSC property *(IAA Article 4 H(6))*.
4. Share best practices and knowledge between Parties (NASA KSC (SA-E3) & FAA (ASA-100/300)) during established monthly meeting *(IAA Article 4 H(3))*.
5. Ensure disagreements related to an aspect of this Annex follows Article 17 of the Umbrella IAA.

ARTICLE 3. FINANCIAL OBLIGATIONS

There will be no transfer of funds between the Parties under this Annex and each Party will fund its own participation. All activities under or pursuant to this Annex are subject to the availability of funds, and no provision of this Annex shall be interpreted to require obligation or payment of funds in violation of the Anti-Deficiency Act (31 U.S.C. § 1341).

ARTICLE 4. INTELLECTUAL PROPERTY RIGHTS - DATA RIGHTS – PROPRIETARY
DATA HANDLING

Notwithstanding Article 10 of the IAA, if FAA or KSC provide Launch or Reentry Operator Proprietary Data or Controlled Government Data to the other party, the disclosing party must identify the data as proprietary data or controlled government data at the time the data is disclosed accordance with paragraph C of Article 10 of the IAA

ARTICLE 5. TERM OF ANNEX

This Annex becomes effective upon the date of the last signature below ("Effective Date") and shall remain in effect until such times as terminated by either party in accordance with Article 6 or the expiration or termination of the IAA. The term of this Annex shall not exceed the term of the IAA.

ARTICLE 6. TERMINATION

Either Party may unilaterally terminate this Annex by providing thirty (30) calendar days written notice to the other Party. This Annex may also be terminated at any time upon the mutual written consent of the Parties.

To verify the currency and accuracy of this Annex, the Parties will review every two years within 2 months of the Annex's final signature - or sooner should the need arise. An electronically signed email exchange between the Parties will provide required documentation of this review.

ARTICLE 7. POINTS OF CONTACT

Apart from POCs for certain activities specifically identified in Article 3 above, the following personnel are designated as the Points of Contact between the Parties in the performance of this Annex.

Management Points of Contact:

NASA John F. Kennedy Space Center
Steven Vandercook
Partnership Integration Manager
Mail Stop: (SI-A2)
Kennedy Space Center, FL 32899
Phone: 321-394-1873
steven.h.vandercook@nasa.gov

DOT Federal Aviation Administration
James A. Hatt (ASZ-200)
Manager, Space Policy Division
800 Independence Avenue SW
Washington, DC 20553-0001
Phone: 202-549-2325
james.a.hatt@faa.gov

Technical Points of Contact:

NASA John F. Kennedy Space Center
Daniel Robinson
Commercial Partnership Safety
Mail Suite: (SA-E3)
Kennedy Space Center, FL 32899
Phone: 321-292-9597
daniel.g.robinson@nasa.gov

NASA John F. Kennedy Space Center
Eric Kirby
KSC Range Flight Safety Lead
Mail Suite: (SA-E3)
Kennedy Space Center, FL 32899
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DOT Federal Aviation Administration
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ansel.collins@faa.gov

DOT Federal Aviation Administration
Jeffrey Holmes (ASA-200)
Manager, Safety Analysis Division
800 Independence Avenue SW
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jeffrey.a.holmes@faa.gov

DOT Federal Aviation Administration
Marcus Ward (ASA-300)
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800 Independence Avenue SW
Washington, DC 20553-0001
Phone: 202-267-8308
Marcus.Ward@faa.gov

ARTICLE 8. MODIFICATIONS

Any modification to this Annex shall be executed, in writing, and signed by an authorized representative of NASA and the FAA. Modification of an Annex does not modify the terms of the IAA.

ARTICLE 9. SIGNATORY AUTHORITY

Approved and authorized on behalf of each Party by:

NATIONAL AERONAUTICS AND
SPACE ADMINISTRATION
JOHN F. KENNEDY SPACE CENTER

UNITED STATES DEPARTMENT OF
TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

BY: _____
Janet Petro
Director, Kennedy Space Center

BY: _____
_ Minh A. Nguyen, Ph.D.
Deputy Associate Administrator for
Commercial Space Transportation

DATE: _____

DATE: _____

Appendix A

FAA Determination that National Aeronautics and Space Administration (NASA) Kennedy Space Center (KSC) Ground Safety Processes, Requirements, and Oversight are not Inconsistent with FAA Ground Safety Requirements and May Be Used by Launch and Reentry Operators to Satisfy FAA Ground Safety Requirements at NASA KSC Revision 1



U.S. Department
of Transportation
Federal Aviation
Administration

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

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 450

FAA Determination that National Aeronautics and Space Administration (NASA) Kennedy Space Center (KSC) Ground Safety Processes, Requirements, and Oversight are not Inconsistent with FAA Ground Safety Requirements and May Be Used By Launch and Reentry Operators to Satisfy FAA Ground Safety Requirements at NASA KSC Revision 1.

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

ACTION: Notice of Determination

SUMMARY: This action provides notice that the FAA, in accordance with 14 CFR §§ 450.179(b)(3) and (c), has determined that the NASA KSC ground safety processes, requirements, and oversight are not inconsistent with the FAA's statutory authority over commercial space activities conducted at NASA KSC.

DATE: The date of this notice is 12 December 2024.

FOR FURTHER INFORMATION CONTACT: For additional information concerning this action, contact Executive Director, Office of Operational Safety, via letter: 800 Independence Ave SW, Washington, DC 20591; via email: 9-AST-Inquiries@faa.gov.

SUPPLEMENTARY INFORMATION: The Commercial Space Launch Act of 1984, as amended and codified at 51 U.S.C. §§ 50901-50923, authorizes the Department of Transportation, and the FAA through delegation, to oversee, license, and regulate commercial launch and reentry activities, and the operation of launch and reentry sites as carried out by U.S. citizens or within the United States. The FAA, through regulations, exercises this responsibility consistent with public health and safety, safety of property, and the national security and foreign policy interests of the United States. 51 U.S.C. 50905.

I. Background

In order to reduce duplicative government requirements, the FAA has historically relieved operators from having to demonstrate compliance with FAA ground safety requirements¹ when conducting licensed activities at a Federal site if a launch operator has an agreement with a Federal site, which includes performance of ground safety services, and the FAA through its launch site safety assessment (LSSA) found that the Federal site's ground safety process satisfies the FAA requirements.

For activities licensed under 14 CFR part 450, an operator need not comply with the ground safety requirements of §§ 450.181 through 450.189 if the following conditions in § 450.179(b) are met:

- (1) The launch or reentry is being conducted from a Federal launch or reentry site;
- (2) The operator has a written agreement with the Federal launch or reentry site for the provision of ground safety services and oversight; and
- (3) The Administrator has determined that the Federal launch or reentry site's ground safety processes, requirements, and oversight are not inconsistent with the Secretary's statutory authority over commercial space activities.

The FAA limits the applicability of § 450.179(b) to certain Federal sites, such as Cape Canaveral Space Force Station (CCSFS), NASA Goddard Space and Flight Center's Wallops Flight Facility (WFF), NASA's Kennedy Space Center (KSC), and Vandenberg Space Force Base (VSFB), that have a long history of conducting launches and reentries in a manner consistent with FAA regulations.² In general, when the FAA finds that a site meets the conditions in § 450.179(b), the FAA will develop a Memorandum of Agreement (MOA) or similar agreement with the approved site and publish on the FAA's website.³ It should be noted that, even where § 450.179(b) is satisfied, the FAA preserves its statutory jurisdiction over those ground safety activities that are part of launch and reentry but recognizes certain Federal processes and procedures as sufficient to meet the FAA's mandate.

To make the determination specified in § 450.179(b)(3), the Administrator considers the nature and frequency of launch and reentry activities conducted from the Federal launch or reentry site, coordination between the FAA and the Federal launch or reentry site personnel, and the Administrator's knowledge of the Federal launch or reentry site's requirements.⁴ The FAA's assessment of a Federal site's ground safety processes and procedures under § 450.179(b)(3) is substantively equivalent to LSSAs under Part 415, through which the FAA determines whether the Federal site's requirements and practices satisfy FAA safety regulations.

The FAA completed its LSSA of NASA KSC's ground safety processes, requirements, and oversight, which the FAA found not to be inconsistent with the FAA's ground safety requirements

¹ 14 CFR §§ 417.402(b) and 415.31(a).

² 85 FR 79592.

³ *Id.* at 79593. See Memorandum of Agreement Between the Department of the Air Force and the Federal Aviation Administration for Launch and Reentry Activity on Department of the Air Force Ranges and Installations, Agreement Number: FAA-DAF-SLR-2021.01.

⁴ § 450.179(c).

in §§ 450.181 through 450.189 as long as NASA applies the FAA definitions outlined in § 401.7, to include the definition of public, when executing their services.

II. Discussion of the Determination

This notice documents and announces that the FAA, per § 450.179(b)(3), has determined that NASA KSC ground safety processes, requirements, and oversight are not inconsistent with the FAA's statutory authority over commercial space activities as long as NASA provides services that meet its requirements policies, and standards.

The specific KSC ground safety requirements⁵ that were used in this determination are detailed in:

- 1) KNPR 8715.3-2, KSC Safety Procedural Requirements Volume 2, Safety Procedural Requirements for Partner Organizations Operating in Joint-Use Facilities; and
- 2) KNPR 8715.3-3, KSC Safety Procedural Requirements Volume 3, Safety Procedural Requirements for Partners Operating in Exclusive-Use Facilities.

KNPR 8715.3-2 and KNPR 8715.3-3 establish safety requirements and oversight for Partner operations at KSC, which apply to commercial operators.

Consequently, an operator with a written agreement to use NASA KSC ground safety services and oversight in accordance with Volume 2 and 3 need not comply with FAA ground safety requirements during licensed operations at KSC as long as those services are performed in a manner that meets NASA KSC's requirements, policies, and standards. Per § 450.179(c), the FAA in making this determination for KSC, considered the nature and frequency of launch and reentry activities conducted from the site, coordination between the FAA and the Federal site safety personnel, and the FAA's knowledge of the Federal site's requirements.

The FAA has pursued an Interagency Umbrella Agreement with NASA, to include a site-specific Annex for KSC, similar to the MOA with the Department of the Air Force (DAF) for CCSFS and VSF. When complete, this document will be published on the FAA's website. The FAA will not continue to update the LSSAs for ground safety at CCSFS, VSF, WFF, and KSC.⁶ However, the FAA will continue to work with the DAF and NASA through the Common Standards Working (CSWG)⁷ to maintain insight into the ground safety requirements and practices at these sites to ensure that these requirements and processes satisfy the FAA's statutory mandate to protect the public.

III. Implementation

An applicant seeking to not comply with the ground safety requirements of §§ 450.181 through

⁵ KNPR 8715.3-2 and KNPR 8715.3-3 define a *Partner* as a non-KSC organization that has a formal agreement with NASA KSC for use of KSC property, facilities, or both, to do operations. That includes at least: commercial Partners, international Partners, and tenants. A commercial Partner is a commercial operator who does launch and reentry activities—including ground operations—that would be licensed by the FAA. Furthermore, although the NASA KSC requirements go beyond public safety, the FAA ground safety requirements pertain just to safety of the public.

⁶ See Statement of Policy on Waiving Ground Safety Regulations at Cape Canaveral Air Force Station, Vandenberg Air Force Base, Wallops Flight Facility, and Kennedy Space Center, effective 3 November 2020 (86 FR 20627).

⁷ The CSWG, which is tri-chaired by FAA, DAF, and NASA, is comprised of range safety personnel from CCSFS, VSF, WFF, and KSC.

450.189 should request a determination under § 450.179(b) during pre-application consultation. In order for § 450.179(b) to apply, an applicant must provide a written agreement with NASA KSC for the provision of ground safety services and oversight by KSC for the proposed activities at this site. With regard to § 450.179(b)(3), an applicant may use this Notice to document the FAA's determination that the NASA KSC ground safety processes, requirements and oversight are not inconsistent with the FAA's statutory authority over commercial space activities. The contents of this document do not have the force and effect of law and are not meant to bind the public in any way. It is intended only to provide clarity to the public regarding existing requirements under the law and agency policies.



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Katie Cranor
Safety Authorization Division Manager (ASA-100)
Office of Commercial Space Transportation