



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

# Advisory Circular

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**Subject:** Applying for FAA Determination on  
Policy or Payload Reviews

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**Date:** August 10, 2023

**AC No:** 450.31-1

**Initiated By:** AST-1

This Advisory Circular (AC) provides guidance that may be used to demonstrate compliance with the requirements for policy and payload reviews in accordance with Title 14 of the Code of Federal Regulations (14 CFR) §§ 450.41 and 450.43. Sections 450.31(a)(2) and (a)(3) require an applicant to obtain a policy approval from the Administrator in accordance with § 450.41 and a favorable payload determination from the Administrator in accordance with § 450.43.

The Federal Aviation Administration (FAA) considers this AC an accepted means of compliance for complying with the regulatory requirements of §§ 450.41 and 450.43. This guidance is not legally binding in its own right and will not be relied upon by the FAA as a separate basis for affirmative enforcement action or other administrative penalty. Conformity with the guidance is voluntary only and nonconformity will not affect rights and obligations under existing statutes and regulations.

If you have suggestions for improving this AC, you may use the Advisory Circular Feedback form at the end of this AC.

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## 1 **PURPOSE.**

- 1.1 This AC provides guidance on demonstrating compliance with the requirements for policy and payload reviews in accordance with Title 14 of the Code of Federal Regulations (14 CFR) § 450.31. Sections 450.31(a)(2) and (a)(3) require an applicant to obtain a policy approval from the Administrator in accordance with § 450.41 and a favorable payload determination from the Administrator in accordance with § 450.43.

### 1.2 **Level of Imperatives.**

This AC presents one, but not the only, acceptable means of compliance with the associated regulatory requirements. The FAA will consider other means of compliance that an applicant may elect to present. In addition, an operator may tailor the provisions of this AC to meet its unique needs, provided the changes are accepted as a means of compliance by the FAA. Throughout this document, the word “must” characterizes statements that directly follow from regulatory text and therefore reflect regulatory mandates. The word “should” describes a requirement if electing to use this means of compliance; variation from the provisions of this AC is possible, but must satisfy the regulation to constitute an alternative means of compliance. The word “may” describes variations or alternatives allowed within the accepted means of compliance set forth in this AC.

## 2 **APPLICABILITY.**

- 2.1 The guidance in this AC is for applicants for a vehicle operator license under part 450 and payload operators. The guidance in this AC is for those seeking a launch or reentry vehicle operator license under part 450, licensed operators seeking to renew or modify existing vehicle operator licenses, and payload owners or operators requesting a payload review independent of an application for a vehicle operator license.
- 2.2 The material in this AC is advisory in nature and does not constitute a regulation. This guidance is not legally binding in its own right, and the FAA will not rely upon this guidance as a separate basis for affirmative enforcement action or other administrative penalty. Conformity with this guidance document (as distinct from existing statutes and regulations) is voluntary only, and nonconformity will not affect rights and obligations under existing statutes and regulations.
- 2.3 The material in this AC does not change or create any additional regulatory requirements, nor does it authorize changes to, or deviations from, existing regulatory requirements.

### 3 APPLICABLE REGULATIONS AND RELATED DOCUMENTS.

#### 3.1 Applicable United States Code (U.S.C.) Statute.

- 51 U.S.C. Subtitle V, Chapter 509, *Commercial Space Launch Activities*.

#### 3.2 Related FAA Commercial Space Transportation Regulations.

The following 14 CFR regulations must be accounted for when showing compliance with 14 CFR §§ 450.41 and 450.43. The full text of these regulations can be downloaded from the [U.S. Government Printing Office e-CFR](#). A paper copy can be ordered from the Government Printing Office, Superintendent of Documents, Attn: New Orders, P.O. Box 371954, Pittsburgh, PA, 15250-7954.

- Section 401.7, *Definitions*.
- Section 450.31, *General*.
- Section 450.41, *Policy review and approval*.
- Section 450.43, *Payload review and determination*.
- Section 450.213(b), *Pre-flight reporting*.

#### 3.3 Related FAA Advisory Circulars.

FAA Advisory Circulars (are available through the FAA website, <http://www.faa.gov>).

- AC 413.5, *Pre-Application Consultation*, when published.

#### 3.4 Related Industry Documents.

- Title 49 CFR Part 172, (DOT) *Transportation of Hazardous Materials*.
- Federal Aviation Administration (FAA), "Licensing Process," dated April 6, 2020, available from:  
[https://www.faa.gov/space/streamlined\\_licensing\\_process/licensing\\_process/](https://www.faa.gov/space/streamlined_licensing_process/licensing_process/).
- *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*, dated June 15, 2021,  
[https://www.faa.gov/sites/faa.gov/files/space/legislation\\_regulation\\_guidance/MOA\\_DAF\\_FAA\\_Launch\\_and\\_Reentry\\_Activity\\_FINAL\\_SIGNED\\_6\\_15\\_2021.pdf](https://www.faa.gov/sites/faa.gov/files/space/legislation_regulation_guidance/MOA_DAF_FAA_Launch_and_Reentry_Activity_FINAL_SIGNED_6_15_2021.pdf).
- National Aeronautics and Space Administration (NASA), *NASA Examples of Information to Expedite Review of Commercial Operator Applications to Regulatory Agencies*, dated July 16, 2021, <https://www.nasa.gov/recommendations-commercial-space-operators/>.
- National Institute of Standards and Technology (NIST) *Advanced Encryption Standard (AES-256)* <https://www.nist.gov/publications/advanced-encryption-standard-aes>.
- NIST *Federal Information Processing Standard FIPS 140-2 and 140-3*.

- Presidential Memorandum on Space Policy Directive – 5 – *Cybersecurity Principles for Space Systems*; <https://history.nasa.gov/SPD-5.pdf>.
- United Nations Treaty on *Principles Governing the Activities of States in the Exploration and Use of Outer Space*, including the Moon and Other Celestial Bodies, Resolution 222, dated 1966, <https://www.unoosa.org/oosa/en/ourwork/spacelaw/treaties/introouterspacetreaty.html>.
- United States Code, 42 U.S.C. Chapter 4321, *Congressional Declaration of Purpose*. (Pub. L. 91–190, § 2, Jan. 1, 1970, 83 Stat. 852).

**Note:** The industry documents referenced in this chapter refer to the current revisions or regulatory authorities' accepted revisions.

#### 4 **DEFINITION OF TERMS.**

For this AC, the definitions from § 401.7 apply.

**5 ACRONYMS.**

AC – Advisory Circular

AES – Advanced Encryption Standard

ARP – Office of the Associate Administrator for Airports

AST – Office of Commercial Space Transportation

ATO – Air Traffic Organization

AVS – Office of Aviation Safety

CFR – Code of Federal Regulations

COSPAR – Committee on Space Research

DOD – Department of Defense

DOS – Department of State

DOT – Department of Transportation

FAA – Federal Aviation Administration

FCC – Federal Communications Commission

FIPS – Federal Information Processing Standard

MOA – Memorandum of Agreement

NASA – National Aeronautics and Space Administration

NEPA – National Environmental Policy Act

NOAA – National Oceanic and Atmospheric Administration

OMB – Office of Management and Budget

SPD – Space Policy Directive

SSA – Space Situational Awareness

SSN – Space Surveillance Network

U.S.C. – United States Code

U.S.G. – United States Government

U.S. – United States

## 6 POLICY AND PAYLOAD REVIEWS AND APPROVALS.

### 6.1 General.

In order to obtain a vehicle operator license under part 450, an applicant must receive a policy approval in accordance with § 450.41 and, for all launches or reentries involving a payload, a favorable payload determination under § 450.43. An applicant may request a policy or payload review, or both, independent of a complete license application. Pursuant to § 450.43(d), a payload owner or operator may request a payload review, independent of an application for a vehicle operator license under part 450.

**Note:** Policy and payload reviews are not required for safety element approvals under part 414.

### 6.2 Starting a Policy Review or Payload Review.

The FAA uses the full and complete information provided by the applicant during the application process to make the necessary policy approval and payload determination. In accordance with § 413.7, an applicant must file an application with the FAA either by paper, by use of physical electronic storage, or by email. For the Office of Commercial Space Transportation (AST) to be able to conduct the policy and payload reviews, an applicant should submit all of the required data as final and as complete as possible. If it is incomplete, or if it changes once submitted, it could significantly delay the review process since interagency consultations take significant time and effort during the evaluation process. An applicant may begin the application process by accessing the Commercial Space Transportation page of the FAA website at [https://www.faa.gov/space/streamlined\\_licensing\\_process/licensing\\_process/](https://www.faa.gov/space/streamlined_licensing_process/licensing_process/). A payload owner or a payload operator may request a payload review and determination in accordance with § 450.43(d).

### 6.3 Pre-Application Process.

#### 6.3.1 Pre-Application Initial Contact Information Form.

To request a policy and payload review in connection with a license application under part 450, an applicant should fill out the Pre-Application Initial Contact Information form<sup>1</sup> located at <https://www.faa.gov/space/licenses/pre-application-initial-contact-information>. Complete all applicable Pre-Application Checklists in final form and submit them to [ASTApplications@faa.gov](mailto:ASTApplications@faa.gov). These checklists can be found at: [https://www.faa.gov/space/licenses/operator\\_licenses\\_permits](https://www.faa.gov/space/licenses/operator_licenses_permits).

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<sup>1</sup> OMB Control # 2120-0608 | 2120-0643 | 2120-0644.



6.3.1.1 The FAA requires all prospective applicants to engage in pre-application consultation with the FAA before submitting an application to discuss the application process and possible issues relevant to the FAA's licensing decision.<sup>2</sup> Pre-application consultation prepares an applicant to submit a formal application, helps identify any unique issues with its proposal, and facilitates coordination with the applicable lines of business within the FAA (e.g., Air Traffic Organization (ATO), Office of Aviation Safety (AVS), and Office of the Associate Administrator for Airports (ARP)) and government agencies outside of the FAA (e.g., the Department of Defense (DOD), Department of State (DOS), and the National Aeronautics and Space Administration (NASA)). Payload owners seeking a payload review independent of a license application may, but are not required to, engage in pre-application consultation.

6.3.1.2 An applicant should provide a comprehensive list of expected types of payloads, including any known specific payloads during pre-application consultation. The FAA recognizes that applicants may not have identified all payload contents at the pre-application stage, but providing all available information on payload contents during pre-application consultation enables a swifter payload determination. Incomplete or missing information could result in a payload determination being delayed or denied. In accordance with § 413.17, an applicant may amend or supplement an application to ensure the continuing accuracy and completeness of information furnished to the FAA.

### 6.3.2 Purpose and Determination of Policy Reviews.

The purpose of a policy review is for the FAA to determine, in accordance with its statutory authority,<sup>3</sup> whether a proposed launch or reentry operation may present any issues that would jeopardize United States (U.S.) national security or foreign policy interests, or international obligations of the United States. If no such issues are found, the FAA will issue a policy approval to an applicant. The policy approval becomes part of the licensing record on which the FAA's licensing determination is based. The information that an applicant must submit in order to receive a policy approval is discussed in paragraph 8 of this AC.

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<sup>2</sup> 14 CFR § 413.5.

<sup>3</sup> Title 51 – National and Commercial Space Programs, Subtitle V, Chapter 509-Commercial Space Launch Activities, Section 50905, License applications and requirements.

### 6.3.3 Purpose and Determination of Payload Reviews.

In accordance with § 450.43(a)(2), the FAA issues a favorable payload determination to a license applicant, or payload owner or operator, if the license applicant or payload owner or operator has 1) obtained all required licenses, authorizations, and permits, and 2) demonstrated the launch or reentry of the payload would not jeopardize public health and safety, the safety of property, U.S. national security or foreign policy interests, or the international obligations of the United States.<sup>4</sup>

### 6.3.4 Relationship to other Executive Agencies.

In accordance with § 450.43(b), the FAA does not make the determination required by § 450.43(a)(2) for those aspects of payloads subject to regulation by the Federal Communications Commission (FCC) or the Department of Commerce, or for payloads owned or operated by the U.S. Government. Payloads include satellites, cargo, or hosted payloads on a spacecraft, which may be reviewed separately from the host payload. The payload determination becomes part of the licensing record on which the FAA's licensing decision is based. The information requirements for a favorable payload determination are discussed in chapter 9, *Payload Reviews* of this AC.

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<sup>4</sup> Title 14 CFR § 450.43(a).

## **7 INTERAGENCY CONSULTATION DURING POLICY AND PAYLOAD REVIEWS.**

### **7.1 General.**

In conducting a policy or payload review, the FAA generally consults with the Federal agencies listed in Table 1 of this AC to determine whether a proposed launch, reentry, or payload raises issues in those agencies' areas of authority. The FAA may elect to consult with other agencies, as appropriate. Usually, an interagency consultation combines the policy and payload reviews for a license application as a concurrent effort. Although the FAA consults with Federal agencies, the authority to issue a favorable determination or a denial of a payload or policy review resides with the Secretary of Transportation.

**Table 1 – U.S. Government Partner Agencies and Areas of Responsibility during Policy or Payload Reviews**

<b>Agency</b>	<b>Primary Area of Responsibility</b>
Department of Commerce, National Oceanic and Atmospheric Administration	U.S. commercially-owned remote sensing satellites
Department of Defense	Issues related to U.S. national security
Department of Energy	Verifies nuclear material is sourced from the Department of Energy for payloads containing exposure levels of nuclear materials
Department of Homeland Security, United States Coast Guard	Overflight of navigable waterways
Department of State	Issues related to U.S. foreign policy or international obligations
Federal Communications Commission	U.S. commercially-owned communications satellites and frequency issues involving FCC licensing of transmitters, including those on launch or reentry vehicles for telemetry
National Aeronautics and Space Administration	The effect of commercial space activities on NASA interests
National Nuclear Security Administration	Checks to see if material in the system poses a nuclear proliferation concern for payloads containing exposure levels of nuclear materials
Nuclear Regulatory Commission	Examines commercial use or possession of nuclear material for payloads containing exposure levels of nuclear materials
Office of the Director of National Intelligence	Issues related to U.S. national security

## 7.2 **Consultation with the Department of Defense and the State Department.**

As part of its review and in accordance with 51 United States Code (U.S.C.) § 50918, the FAA consults with the DOS and DOD prior to issuing a policy or payload determination. In accordance with §§ 450.41(b)(1) and 450.43(e)(1), the FAA consults with the DOD to determine whether a proposed launch or reentry, or the launch or reentry of a payload or class of payloads presents any issues affecting U.S. national security. In accordance with §§ 450.41(b)(2) and 450.43(e)(2), the FAA consults with the DOS to identify any issues affecting U.S. foreign policy interests or international obligations.

## 7.3 **Consultation with Other Federal Agencies.**

In accordance with §§ 450.41(b)(3) and 450.43(e)(3), the FAA also consults with NASA, the Department of Commerce's National Oceanic and Atmospheric Administration (NOAA), the FCC, the Office of the Director of National Intelligence, the Department of Energy, and the U.S. Coast Guard to address U.S. national security or foreign policy interests, or international obligations of the U.S., associated with the proposed launch, reentry, or payload. The FAA may also coordinate with DOD and NASA on matters related to the safety of their assets in space.

## 7.4 **Interagency Consultation Considerations for Policy and Payload Reviews.**

During the FAA policy and payload reviews, the FAA evaluates the application and determines which other government entities need to be involved to determine whether the launch, reentry, or payload presents any issues affecting U.S. national security or foreign policy interests, or international obligations of the United States. Table 1 indicates the FAA's primary partner agencies and their primary areas of responsibility. Operators seeking a policy or payload review under §§ 450.41 or 450.43 should be cognizant that Federal agencies have raised concerns over the following matters during past interagency consultations.

### 7.4.1 **Foreign Involvement.**

DOS or DOD may have concerns over foreign involvement in the U.S. launch or reentry industry when it involves the transfer of sensitive technologies. Consequently, the FAA requires license applicants to identify any foreign ownership of their entities in accordance with §§ 450.41(e)(3) and 450.43(i)(1)(iv). These provisions enable the FAA, DOS, and DOD to adequately assess the implications of the proposed licensed launch, reentry, or payload. In cases where there is foreign ownership, providing details of that foreign ownership, such as percentages of any foreign ownership, will facilitate the interagency consultation.

#### 7.4.2 International Agreements.

The DOS reviews proposed launches or reentries for conformity with international agreements such as the Outer Space Treaty of 1967. For missions with the potential of reaching a solar system body, this includes a review by the DOS and often a technical assessment by NASA of an operator's planned measures for compliance with the U.S. international obligation to avoid harmful contamination of solar system bodies.

#### 7.4.3 Planetary Protections.

If any element of the launch vehicle, primary spacecraft, or secondary payload that has sufficient propulsion to leave Earth orbit and reach the Moon or a more distant solar system body, an operator should indicate any planetary protection measures it will implement. The operator should use reasonable efforts to implement planetary protection measures generally consistent with the Committee on Space Research Planetary Protection Policy and Guidelines (COSPAR) including harmful contamination. COSPAR guidelines are an accepted approach for the United States Government (U.S.G.) to comply with harmful contamination obligations under Article IX of the Outer Space Treaty. The following information should be provided by the operator to facilitate review of a proposed operation:

1. Missions to the Surface of the Moon:
  - a. An inventory of propulsion products released into the lunar environment,
  - b. Additionally, for missions to permanently shadowed regions or the lunar poles, an inventory of organic substances since there may be water or ice there.
2. Missions to other Solar System Bodies:
  - a. Description of the energetic potential of the primary launch vehicle, second stage, cruise stage, and additional independent propulsion systems on primary and secondary payloads.
  - b. Description of trajectory including flybys or gravity assists of celestial objects and orbital insertion or landing at the destination.
  - c. Assessment of forward planetary protection contamination (i.e., biological contamination to other celestial bodies) and associated mitigation strategy for celestial objects along the trajectory and at the orbiting or landed destination.
3. Missions with Earth Return:
  - a. From the Moon, an inventory of Moon materials during planned or unplanned Earth reentry.
  - b. From all other solar system bodies, an applicable risk assessment for backward planetary protection (risk to public health and safety) during planned or unplanned Earth reentry or entry into the Earth-Moon system.

## 8 **POLICY REVIEWS.**

### 8.1 **Information Requirements for Policy Reviews.**

In accordance with § 450.41(e), an applicant must:

1. Identify the model, type, and configuration of any vehicle proposed for launch or reentry by the applicant;
2. Describe the vehicle by characteristics that include individual stages, their dimensions, type and amounts of all propellants, and maximum thrust.
3. Identify foreign ownership of the applicant as follows:
  - a. For a sole proprietorship or partnership, identify all foreign ownership;
  - b. For a corporation, identify any foreign ownership interests of 10 percent or more;
  - c. For a joint venture, association, or other entity, identify any participating foreign entities;
4. Identify the proposed vehicle flight profile, including:
  - a. Launch or reentry site, including any contingency abort locations;
  - b. Flight azimuths, trajectories, and associated ground tracks and instantaneous impact points for the duration of the licensed activity, including any contingency abort profiles;
  - c. Sequence of planned events or maneuvers during flight;
  - d. Normal impact or landing areas for all mission hardware; and
  - e. For each orbital mission, the range of intermediate and final orbits of each vehicle upper stage and their estimated orbital lifetimes.

### 8.2 **Identification of Launch and Reentry Details.**

For the FAA to conduct a policy review, an applicant must describe the launch or reentry vehicle and its proposed flight profile and describe the vehicle by characteristics that include individual stages and their dimensions, the type and amounts of all propellants, and maximum thrust, in accordance with § 450.41(e). The information required in § 450.41(e) should provide the FAA and its interagency partners with the scope of the proposed activity.

### 8.3 **Identification of Flight Azimuths, Trajectories, and Details.**

In accordance with § 450.41(e)(4), the FAA requires the applicant to provide flight azimuths, trajectories, and associated ground tracks and instantaneous impact points, and contingency abort profiles, if any, for the duration of the licensed activity (e.g., lift off to the end of launch).

#### 8.4 **Issues Impeding Approval, Denial of a Policy Approval.**

In accordance with § 450.41(c), the FAA will advise an applicant, in writing, of any issues raised during a policy review that would impede issuance of a policy approval. The applicant may respond to the FAA, in writing, or amend its license application as required by § 413.17. In accordance with § 450.41(d), the FAA will notify an applicant, in writing, if it has denied a policy approval for a license application. The notification will state the reasons for the FAA's determination. The applicant may seek further review of the determination in accordance with § 413.21.

### 9 **PAYLOAD REVIEWS.**

The FAA consults with partner agencies within the U.S. Government when conducting a payload review. An interagency consultation combines the policy and payload reviews when possible. Part 450 regulations contain informational requirements for policy and payload reviews. The criteria within FAA regulations for policy or payload approvals are not detailed. Rather, criteria are rooted in over-arching considerations.

#### 9.1 **Information Requirements for Payload Reviews.**

##### 9.1.1 In accordance with § 450.43(i) for the launch of a payload, the applicant must submit the following payload information to the FAA:

1. Payload name or class of payload, and function;
2. Description, including physical dimensions, weight, composition, and any hosted payloads;
3. Payload owner and payload operator, if different from the person requesting payload review and determination, to include if the payload owner and/or operator changes from that which was initially reported;
4. Any foreign ownership of the payload or payload operator, as specified in § 450.41(e)(3);
5. Hazardous materials as defined in § 401.7, radioactive materials, and the amounts of each;
6. Explosive potential of payload materials, alone and in combination with other materials found on the payload;
7. For orbital launches, parameters for parking, transfer and final orbits, and approximate transit times to final orbit;
8. Delivery point in flight at which the payload will no longer be under the licensee's control;
9. Intended operations during the lifetime of the payload, including anticipated life span and any planned disposal;
10. Any encryption associated with data storage on the payload and transmissions to or from the payload; and



11. Any other information necessary to make a determination based on public health and safety, safety of property, U.S. national security or foreign policy interests, or international obligations of the United States.
- 9.1.2 In accordance with § 450.43(i)(2), for the reentry of a payload, the applicant must submit the following payload information to the FAA:
1. Payload name or class of payload, and function;
  2. Physical characteristics, dimensions, and weight of the payload;
  3. Payload owner and payload operator, if different from the person requesting the payload review and determination;
  4. Type, amount, and container of hazardous materials and radioactive materials in the payload;
  5. Explosive potential of payload materials, alone and in combination with other materials found on the payload or reentry vehicle during reentry; and
  6. Designated reentry site.
- 9.2 **Additional information needed under § 450.43(i)(1)(xi).**  
Pursuant to § 450.43(i)(1)(xi), the FAA may require operators to submit additional information for unique missions to allow the FAA to properly evaluate the implications of the payload under § 450.43(a).
- 9.3 **Payloads Having Toxic Hazards Risk.**  
An operator anticipating toxic hazards on its vehicle or payload should reference AC 450.139-1, *Toxic Release Hazards Analysis* for means of compliance on identifying hazard areas, flight commit criteria, and mitigations or controls for toxics.
- 9.4 **Conducting Safe Ground Operations.**  
When handling payloads at a launch or reentry site and while conducting safe ground operations, a ground hazard analysis must be performed in accordance with § 450.185 and the pre-flight and post-flight ground hazard controls must be defined and documented in accordance with § 450.189 unless § 450.179(b) is met. At a U.S. launch or reentry site where § 450.179(b) is not met, an operator must comply with §§ 450.181 through 450.189. An operator should include a list of defined pre-flight and post-flight operations that include all systems and operations involving the vehicle or its payload. Doing so facilitates a thorough identification and assessment of system and operational hazards to the public and property associated with licensed ground operations at the launch or reentry site. Further information can be found in AC 450.179-1, *Ground Safety*.

## 9.5 **Tracking Considerations.**

Ensuring an operator can track a payload following launch enables space situational awareness (SSA) and provides safety for other space operations. The FAA's interagency partners have expressed concerns whether payloads can be tracked. Payloads in low earth orbit that are 10 centimeters and larger in diameter can be tracked using the Space Surveillance Network (SSN). Payloads that contain radar retroreflectors or other appendages facilitate tracking.

## 9.6 **Encryption.**

Information on the encryption used for both spacecraft and associated supporting systems will enable U.S.G. stakeholders to assess potential cyber risks. In accordance with § 450.43(i)(1)(x), applicants must provide the type of space encryption or authentication procedures (or lack thereof) used to protect the spacecraft, subsystems, and mission data during the entire mission lifetime, including safeguarding command control and telemetry links, to inform the payload review. Applicants should describe any encryption associated with data storage on the payload and transmissions to or from the payload. Encryption helps ensure against cyber intrusion, loss of spacecraft control, and potential debris causing events. Many operators already use the 256-bit Advanced Encryption Standard (AES-256)<sup>5</sup> developed by the National Institute of Standards and Technology (NIST) or NIST Federal Information Processing Standard FIPS 140-2 and 140-3<sup>6</sup> to protect commercial telemetry, tracking, and control data links and mission data transmission or storage. In this case, an operator would only need to state that it uses AES-256. NASA and the DOD frequently request this information during the consultation process in reviewing payloads to determine whether a proposed payload would jeopardize the safety of government employees or property in outer space, or U.S. national security.

## 9.7 **Issues Impeding Approval, Denial of a Payload Determination.**

- 9.7.1 In accordance with § 450.43(f), the FAA will advise an applicant, in writing, of any issues raised during a payload review that would impede issuance of a favorable payload determination. The applicant may respond to the FAA, in writing, or amend its license application as required by § 413.17.
- 9.7.2 In accordance with § 450.43(g), the FAA notifies an applicant, in writing, if it has denied a favorable payload determination. The notification should state the reasons for the FAA's determination. The applicant may seek further review of the determination in accordance with § 413.21.

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<sup>5</sup> <https://www.nist.gov/publications/advanced-encryption-standard-aes>.

<sup>6</sup> <https://csrc.nist.gov/projects/cryptographic-module-validation-program/validated-modules/search>.

## Advisory Circular Feedback Form

**Paperwork Reduction Act Burden Statement:** A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a currently valid OMB Control Number. The OMB Control Number for this information collection is 2120-0746. Public reporting for this collection of information is estimated to be approximately 5 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. All responses to this collection of information are voluntary per FAA Order 1320.46D Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to: Information Collection Clearance Officer, 800 Independence Ave, Washington, D.C. 20590.

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- ☐ In a future change to this AC, please cover the following subject:  
(Briefly describe what you want added.)  
  
[Click here to enter text.](#)
- ☐ Other comments:  
  
[Click here to enter text.](#)
- ☐ I would like to discuss the above. Please contact me.

Submitted by: \_\_\_\_\_

Date: \_\_\_\_\_