

**SPACE LAUNCH AND  
REENTRY ACTIVITIES  
AFFECTING THE MARINE  
TRANSPORTATION SYSTEM**



**COMDTINST 16601.11A  
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U.S. Department of  
Homeland Security

United States  
Coast Guard



Commandant  
United States Coast Guard

US Coast Guard Stop 7101  
2703 Martin Luther King Jr Ave SE  
Washington, DC 20593-7101  
Staff Symbol: CG-5P  
Phone: (202) 372-1009  
Email: cgwwm@uscg.mil

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## COMMANDANT INSTRUCTION

Subj: SPACE LAUNCH AND REENTRY ACTIVITIES AFFECTING THE MARINE  
TRANSPORTATION SYSTEM

- Ref:
- (a) United States Space Priorities Framework, December 2021
  - (b) The U.S. Coast Guard Addendum to the United States National Search and Rescue Supplement (NSS) to the International Aeronautical and Maritime Search and Rescue Manual (IAMSAR), COMDTINST M16130.2 (series)
  - (c) Marine Planning to Operate and Maintain the Marine Transportation System (MTS) and Implement National Policy, COMDTINST 16003.2 (series)
  - (d) Memorandum of Understanding between the Federal Aviation Administration Office of Commercial Space Transportation and the United States Coast Guard Regarding Commercial Space Transportation of 05 February 2020
  - (e) Title 14, Code of Federal Regulations: Aeronautics and Space
  - (f) Risk Management (RM), COMDTINST 3500.3 (series)
  - (g) Memoranda of Understanding/Agreement, COMDTINST 5216.18 (series)
  - (h) National Search and Rescue Plan of the United States, 2016
  - (i) United States National Search and Rescue Supplement to the International Aeronautical and Maritime Search and Rescue Manual, April 23, 2018
  - (j) Navigation Safety Risk Assessments Tactics, Techniques, and Procedures, CGTTP 3-71.4

1. **PURPOSE.** This Instruction prescribes policy and reporting requirements for all units assessing and mitigating the risks related to space launch and reentry activities occurring in or adjacent to the marine environment of the United States (U.S.), as defined in 46 U.S.C. § 70031.
2. **ACTION.** All Coast Guard unit commanders, commanding officers, officers-in-charge, Area and District Operational Commanders, Deputy/Assistant Commandants, and chiefs of headquarters staff elements must comply with the provisions of this Instruction. Requests for policy support or interpretation should be sent to Commandant (CG-5PW).
3. **AUTHORIZED RELEASE.** Internet release is authorized.

4. DIRECTIVES AFFECTED. Space Launch and Reentry Activities Affecting the Marine Transportation System, COMDTINST 16601.11 is cancelled.
5. DISCUSSION.
  - a. The Marine Transportation System (MTS) includes waterways, ports, and landside connections, moving people and goods to and from the water. Space launch and reentry activities have the potential to impact the MTS and increase the risk to the maritime community through launch and reentry activities associated with hazardous debris, jettisoned objects, potential collision between space vehicles and vessels, rocket anomalies, Limited Access Areas (LAA), warning areas, and disrupting waterway users. Spaceport development along the coastal areas also increase the geographic footprint, cadence of operations, and navigational risk associated with launch and reentry activities on the MTS.
  - b. Hazardous debris and jettisoned objects impact the MTS because launch activities may result in components of the launch vehicle being jettisoned into U.S. waters during operations or landing and recovery of boosters on remote or autonomously controlled vessels. Jettisoned objects or debris have the potential to impact the marine environment, activities, and users, which could extend beyond the launch activity timeframe, including but not limited to:
    - (1) Direct strike from jettisoned objects with persons, marine wildlife, vessels or other watercraft, or offshore installations and infrastructure;
    - (2) Marine pollutants from jettisoned objects;
    - (3) Floating debris impacting shipping and safe navigation;
    - (4) Changes to seabed topography reducing vessel under keel clearance; and
    - (5) Re-routing of vessel traffic to avoid a space launch or reentry hazard area.
  - c. In accordance with 14 U.S.C. § 102, the Coast Guard has general authority to safeguard the MTS and is responsible for doing so to facilitate commerce and use of these waters for all stakeholders. Because of the potential risks to navigation, public safety, or the marine environment space launch and reentry activities present, the Coast Guard has a responsibility to understand, engage, and support these activities in a manner that promotes their safe execution and simultaneously enables other waterways uses. The Service's support of space activities along our Nation's coasts advances Administration priorities as detailed in Reference (a). This Commandant Instruction is intended, in part, to implement these priorities.
  - d. The Coast Guard maintains partnerships with several federal agencies to mitigate the risks and minimize the negative impacts space launch and reentry activities may have on the MTS.

- (1) Federal Aviation Administration (FAA) Office of Commercial Space Transportation (FAA-AST): FAA-AST is charged with the regulation of commercial space transportation and is the licensing authority for commercial space activities. FAA-AST licensing regulations require commercial operators to have agreements with the Coast Guard.
  - (2) National Aeronautics and Space Administration (NASA): Since the Space Shuttle program, the Coast Guard has partnered with NASA to ensure the safety and security of launch and reentry activities, which continues today for contract and other NASA missions.
  - (3) National Geospatial-Intelligence Agency (NGA): NGA issues notice to mariners and navigational warnings outside of 150 nautical miles using information provided by the Coast Guard.
  - (4) U.S. Space Force (USSF): The USSF oversees the Federal ranges. Coast Guard personnel have been detailed to the USSF to conduct maritime range surveillance and clearance during launch operations since its origins in the U.S. Air Force (USAF).
- e. The Coast Guard has adapted existing policies related to the assessment and mitigation of risk and incident response to better assess and address the effects of space transportation activities occurring in or adjacent to the marine environment. Disruptions to the MTS, risks to public safety, and the potential for disaster response operations all fall within the scope of operations already familiar to Coast Guard units. However, some unique challenges include a 12 nautical mile limit for LAAs, requests for unmanned operations, and Search and Rescue (SAR) support for Commercial Space Flight Participants. This Instruction places space launch and reentry activities in context within the MTS and enables units to identify relevant factors necessary for risk-based decision-making and mission execution.
6. DISCLAIMER. This guidance is not a substitute for applicable legal requirements, nor is it itself a rule. It is intended to provide administrative guidance for Coast Guard personnel and is not intended to nor does it impose legally binding requirements on any party outside the Coast Guard.
7. MAJOR CHANGES. Major changes in this update are as follows:
- a. Background: Abridged section by removing policy-based statements and relabeled Discussion.
  - b. Para 13: New section providing general policy. Provided language prioritizing Coast Guard support for space launch and reentry mission types.
  - c. Para 13.b.(2): Added language prohibiting reimbursement directly from commercial operators. Added language for commercial operations at a government site may require a Letter of Intent.

- d. Para 13.d: Removed mandated use of Navigation Safety Risk Assessments (NSRA) to allow the use of risk tools better suited for space operations, including review of FAA flight safety analyses and unit-created risk tools.
  - e. Para 14: Distributed general roles and responsibilities to specific Headquarters Directorates, and Operational Commanders.
  - f. Para 14.h.(8): Added language on triggering events for marine event permits.
  - g. Para 15.b: Directed use of Space Operations utilization code for the Asset Logistics Management Information System (ALMIS).
  - h. Added samples of updated FAA regulations in Appendix A.
8. SCOPE AND AUTHORITIES. It is recommended the reader become familiar with the directives and publications noted throughout this Instruction. Applicable directives and publications are listed as references on the first page of this Instruction.
  9. ENVIRONMENTAL ASPECT AND IMPACT CONSIDERATIONS. The Office of Environmental Management, Commandant (CG-47) reviewed this Commandant Instruction and the general policies contained within and determined this policy falls under the Department of Homeland Security (DHS) categorical exclusion A3. This Commandant Instruction will not result in any substantial change to existing environmental conditions or violation of any applicable federal, state, or local laws relating to the protection of the environment. It is the responsibility of the action proponent to evaluate all future specific actions resulting from this policy for compliance with the National Environmental Policy Act (NEPA), other applicable environmental requirements, and the U.S. Coast Guard Environmental Planning Policy, COMDTINST 5090.1 (series).
  10. DISTRIBUTION. Electronic distribution in the Directives System Library. Intranet/Pixel Dashboard: Directives Pubs, and Forms - PowerApps (appsplatform.us) . If Internet released: Commandant Instructions (uscg.mil) , Coast Guard Forms (uscg.mil) .
  11. RECORDS MANAGEMENT CONSIDERATIONS. Records created as a result of this Instruction, regardless of format or media, must be managed in accordance with Records & Information Management Program Roles and Responsibilities, COMDTINST 5212.12 (series) and the records retention schedule located on the Records Resource Center Microsoft SharePoint site at: <https://uscg.sharepoint-mil.us/sites/cg61/SitePages/CG-611-RIM.aspx> .
  12. DEFINITIONS. The following terms appear throughout this Instruction and associated tactics, techniques, and procedures.
    - a. Agreement. A Memorandum of Agreement (MOA) or Memorandum of Understanding (MOU) in accordance with Reference (d).
    - b. Commercial Provider. Any person providing space transportation services or other space-related activities, primary control of which is held by persons other than Federal, State, local, and foreign governments as referenced in 51 U.S. Code § 50101.

- c. Federal Launch Range. A launch site, from which launches routinely take place, that is owned and operated by the government of the United States in accordance with Reference (e).
- d. Government. For reference in this Instruction means the Government of the United States.
- e. Launch. To place or try to place a launch vehicle or reentry vehicle and any payload from Earth in a suborbital trajectory, in Earth orbit in outer space, or otherwise in outer space. This includes launches from offshore sites, including the preparation of such sites for the launch activity. The waterborne delivery of a space vehicle to an offshore site is part of the launch activity, as is the return to port of any waterborne, mobile launch platform following the launch. The return to Earth of booster rocket stages and equipment associated with launch are also elements of a launch in accordance with Reference (e).
- f. Letter of Intent (LOI). Correspondence used to communicate the Coast Guard's intent to exercise its authorities and responsibilities to safeguard the maritime transportation system, public safety, and marine environment in response to space activities, and to indicate its intent, consistent with its statutory authority, to issue Notices to Mariners at its discretion in accordance with Reference (e).
- g. Marine Safety Information (MSI). Information the Coast Guard transmits to notify the public of activities or incidents in the marine environment, including information disseminated via the following methods:
  - (1) *Notice to Mariners*, including *Local Notice to Mariners*, *Marine Broadcast Notice to Mariners*, and *Notice to Mariners* as defined in 33 CFR § 72.01.
  - (2) *Marine Assistance Request Broadcasts* and *Urgent Marine Information Broadcasts* per Sections 2.6 and 4.1 of Reference (b), inform the public of maritime requests for assistance and potential or actual maritime distress situations.
  - (3) Additional methods of communication: *Marine Safety Information Bulletins* and other electronic, verbal, or physical means of informing the public, including Automated Identification System broadcasts, social media notices, news reports, flyers, and direct communication with mariners.
- h. Operator. A holder of a license or permit under 51 U.S.C. § 509.
  - (1) *Launch operator* means to place or try to place a launch vehicle or reentry vehicle and any payload or human being from Earth in a suborbital trajectory, in Earth orbit in outer space, or otherwise in outer space, including activities involved in the preparation of a launch vehicle or payload for launch, when those activities take place at a launch site in the United States in accordance with Reference (e).
  - (2) *Reentry operator* means a person responsible for conducting the reentry of a reentry vehicle as specific in a license issued by the FAA in accordance with Reference (e).

- i. Launch site. The location on Earth from which a launch takes place including the necessary facilities at that location in accordance with Reference (e).
- j. Reentry site. The location on Earth where a reentry vehicle is intended to return. It includes the area within three standard deviations of the intended landing point in accordance with Reference (e).
- k. Reentry. To return or attempt to return, purposefully, a reentry vehicle and its payload, if any, from Earth orbit or from outer space to Earth. The term “reenter; reentry” includes activities conducted in Earth orbit or outer space to determine reentry readiness and that are critical to ensuring public health and safety and the safety of property during reentry flight. The term “reenter; reentry” also includes activities conducted on the ground after vehicle landing on Earth to ensure the reentry vehicle does not pose a threat to public health and safety or the safety of property. Returning the space vehicle from an offshore reentry site to an onshore servicing facility is part of the reentry activity in accordance with Reference (e).
- l. Risk assessment.
  - (1) *Operational risk assessments* address the effects of risk factors to Coast Guard personnel and assets and comply with Reference (f).
  - (2) *Navigation Safety Risk Assessments* (NSRA) address the effects of risk factors on the marine transportation system in accordance with Reference (j).
  - (3) *Environmental risk assessments* address effects of risk factors to the marine environment to inform the development of Area Contingency Plan sections for space transportation in accordance with the National Contingency Plan (40 CFR part 300).
- m. Space Flight Participant. An individual, who is not crew, carried aboard a launch or reentry vehicle in accordance with Reference (e).

### 13. SPACE LAUNCH AND REENTRY ACTIVITIES PRIORITIES AND POLICIES.

- a. Space launch and reentry activities have the potential to affect the MTS, including impact on ports, shipping, navigation safety, the freedom of navigation, and emergency response. To support economic, social, and environmental objectives, a balance will need to be struck minimizing the negative impacts to the MTS while maximizing the contribution of space activities supporting the economy and missions of significant national interest. Recognizing the Coast Guard may not be able to support every launch and reentry activity, the following priority order for service and support is established:
  - (1) **Missions of Significant National Interest:** Missions deemed highest priority because the space vehicle occupants, payload, or mission have a critical nexus with the national security interests of the U.S. These missions may have a government or commercially contracted launch provider, and will involve participation by U.S. government agencies, astronauts, or sponsored crew. Examples include launch and reentry activities with NASA astronauts to or from the International Space Station,



the moon, or other celestial bodies; and deployment of USSF security satellites to outer space.

- (2) **Government Supported Missions:** Missions of substantial national interest, which are representative of the advancement of the U.S. Space Program, or sustainment of U.S. presence in space. These missions may have a government or commercial launch provider and are sponsored by a U.S. government agency. Examples include deployment of meteorological or position, navigation, and timing satellites; experimental space vehicles under contract with the U.S. government; and payloads launched in support of international space agency partners.
- (3) **Commercial Missions:** Missions of a wholly commercial nature with no direct nexus to national security interests of the U.S. Examples include space tourism, deployment of private telecommunication satellites, and testing and evaluation of experimental launch or reentry vehicles not in direct support of contracted USSF/NASA activities.

b. With respect to operators:

- (1) *Government operators.* The Coast Guard has established agreements with NASA, USAF, and USSF for cooperation on federal launch ranges and government sites, which typically support Missions of Significant National Interest. The Coast Guard provides the following support for government operators upon request and subject to agreement and resource availability:
  - (a) Advise on navigation safety risk and public safety risk;
  - (b) Provide or coordinate patrol assets, as needed, to improve an agency's operational capabilities;
  - (c) Supplement first responder capabilities; and
  - (d) Establish Regulated Navigation Areas (RNA) and/or LAAs.
- (2) *Commercial operators.* Commercial operators have specific responsibilities assigned to them by Reference (e) and should coordinate all activities that affect the MTS with the Coast Guard through FAA-AST. Commercial operators using government sites with which the Coast Guard has an existing agreement may still be subject to an LOI. Some commercial operators have entered contractual agreements with the U.S. Government as launch providers for Missions of Significant National Interest or Government Supported Missions. Judicious use of authorities based on mission type and asset availability is necessary. The commercial operator bears the burden of assuring the safety of their operations. The Coast Guard is under no obligation to provide operational assets in support of Commercial Missions. Assets deployed to support commercial space activities are at the discretion of the Operational Commander. The Coast Guard does not have statutory authority to seek reimbursement directly from commercial operators for deployed assets. Depending on the mission type, the Coast Guard may provide some or all of the following support for commercial operators:

- (a) Advise on navigation safety risk and public safety risk;
  - (b) Provide or coordinate patrol assets, as needed, to improve an agency's operational capabilities;
  - (c) Supplement first responder capabilities; and
  - (d) Establish RNAs and/or LAAs.
- (3) *Amateur rocket launch operators.* These operators are subject to FAA authority when operating from a site also used for U.S. Government or commercial space activities. If these activities occur in or adjacent to the marine environment, an amateur rocket operator is subject to the same Coast Guard authority as any other vessel operator or waterway user. The Coast Guard should evaluate each launch activity independently, on a case-by-case basis.
- c. In accordance with Reference (e), commercial operators are required to establish a written agreement with the Coast Guard regarding procedures for the issuance of a Notice to Mariners and other measures necessary to protect public health and safety prior to launch or reentry. This agreement shall be documented via an LOI. LOIs are typically issued by the cognizant Area or District Commander and should be coordinated through the servicing legal office. The most current template can be found in the Space Policy Library located on Commandant (CG-WWM-1) SharePoint site. Reasons for a new LOI include:
    - (1) The renewal of an expired FAA license;
    - (2) When the operations specified in the given LOI substantially change; and
    - (3) If the Coast Guard revokes an LOI after determining that a commercial operator is not providing sufficient and timely information necessary for the Coast Guard to fulfill its duties identified in this Instruction. In such cases, FAA-AST shall be notified and a new LOI will be required.
  - d. To inform risk mitigation measures, the Coast Guard should request, through FAA-AST, commercial operators prepare a NSRA in accordance with Reference (c). These assessments provide critical information related to launch and reentry, and the risks associated with hazardous debris and jettisoned objects, potential collision between space vehicles and vessels, and disruption to waterway users. Completion of the NSRA would be used to supplement the applicant's risk analysis submissions to FAA-AST for licensing in accordance with Reference (d). Furthermore, this information can serve to facilitate USCG notifications to the public and other measures required to mitigate the risk of commercial space launch and reentry activities affecting the MTS.
  - e. The Coast Guard may, as needed, enter into agreements in accordance with Reference (g) with NASA, USSF, and FAA-AST to coordinate federal responses related to space launch and reentry.

- f. Space launch and reentry activities may require the Coast Guard to exercise its statutory authority to conduct SAR as contained in 14 U.S.C. §§ 102 and 521, and further delineated in References (b), (h), and (i). Per Reference (i), the Department of Defense (DOD) may assume SAR Mission Coordinator (SMC) for any incidents, regardless of location, involving government-sponsored space launch or reentry activities. The DOD will have designated assets specifically staged for SAR support of these missions. If the need arises, the DOD may request additional Coast Guard SAR support in the form of assets or personnel or to assume the role of SMC. The Coast Guard will otherwise carry out its role as SAR Coordinator and SMC as prescribed in References (g), (h), and (i) for all other space transportation activities within the U.S. SAR region.

#### 14. ROLES AND RESPONSIBILITIES.

- a. Assistant Commandant for Prevention Policy (CG-5P).
  - (1) The Director of Marine Transportation Systems (CG-5PW) is responsible for overseeing Vessel Traffic Services (VTS), managing the federal regulations related to vessel navigation, enforcing the procedures related to MSI, and any Aids to Navigation (ATON) associated with space launch and reentry activities. This includes the development and oversight of procedures to conduct risk assessments. Commandant (CG-5PW) shall periodically review this Instruction and coordinate updates to risk assessments and relevant policy activities associated with this Instruction, as necessary, with input from other Assistant Commandants, Areas, Districts, and field units. Offices within this Directorate should:
    - (a) Collaborate with offices within the Assistant Commandant for Response Policy Directorate (CG-5R) to coordinate and develop risk assessment procedures and standards for agreements with NASA, USAF, FAA, USSF, and any other U.S. Government agency or entity involved in space launch and reentry activities;
    - (b) Identify elements of space launch and reentry activities that are relevant for marine planning activities such as risk assessment and ATON administration, for inclusion in any related procedures;
    - (c) Develop procedures and analytics related to risk assessment that enable Area, District, and Sector Commanders to gauge the risk to the MTS posed by space launch and reentry activities, and to communicate Coast Guard intentions with operators. This includes the identification of elements that are common between risk assessments and LOIs, and methods to coordinate with commercial and government operators. These elements may be suitable for forming the basis of standardized forms, information systems, and a generalized assessment of the navigation safety risks posed by space transportation activities. All procedures should include data entry requirements for the MSI for Safety and Law Enforcement (MISLE) or applicable database;
    - (d) Develop procedures for the use of COTP/VTS authorities, dissemination of MSI, and ATON services to control and notify vessel traffic as necessary, and within

the scope of statutory authorities and obligations, during space launch and reentry activities occurring in or adjacent to the marine environment. All procedures should include data entry requirements for the U.S. Aids to Navigation Information Management System (USAIMS) or applicable database;

- (e) Maintain a central, digital library of relevant Coast Guard policy, procedures (including job aids and guides), NSRA, agreements with U.S. government partners, and LOIs with commercial space operators. This library should be accessible to operational and unit commanders and appropriate staff at Coast Guard Headquarters, Areas, and Districts;
  - (f) Coordinate meetings as necessary with FAA-AST, USSF, or other government agencies to facilitate efficient and timely responses to Coast Guard operational and policy concerns;
  - (g) Monitor Port Access Route Studies or Ports and Waterways Safety Assessments to address maritime stakeholder and space industry concerns regarding future developments that may also affect the Coast Guard's risk assessments, agreements, or LOIs;
  - (h) Coordinate with FAA-AST regarding amateur rocket launch authorization requests, and ensure these activities are communicated to the appropriate District;
  - (i) Lead the Headquarters Space Advisory Council, a cross-directorate group that works to address policy issues spanning multiple Coast Guard missions impacted by commercial space operations; and
  - (j) Coordinate all inquiries to commercial space operators from Areas, Districts, and Sectors through FAA-AST.
- (2) The Director of Inspections and Compliance (CG-5PC) is responsible for procedures to conduct regulatory oversight of vessels and commercial waterfront facilities associated with space launch and reentry activities. Offices within this Directorate should:
- (a) Share information with other Commandant (CG-5P) Directorates, FAA-AST, and other relevant federal stakeholders in accordance with established processes regarding developments with Coast Guard directives and procedures related to vessel and commercial waterfront facilities associated with space launch and reentry activities;
  - (b) Ensure field units apply current inspection regulations and policies to vessels and waterfront facilities associated with space launch and reentry activities;
  - (c) Ensure affected COTP zones follow their respective Area Maritime Security Plan guidance to update as appropriate through NVIC 09-02 (series), enclosure 2 (for example, sections 1600, 1640, and 3300);

- (d) Include data entry guidance for MISLE as necessary;
  - (e) Issue guidance for OCMI responsibilities and document equivalencies; and
  - (f) As appropriate, contribute materials to the central, digital library referenced in section 15(a)(1)(e) of this Instruction.
- (3) The Director of Commercial Regulations and Standards (CG-5PS) is responsible for regulations, standards, and policies to enhance maritime safety, security, and stewardship associated with space launch and reentry activities. Offices within this Directorate should:
- (a) Share information with the other Commandant (CG-5P) Directorates, FAA-AST, and other relevant federal stakeholders in accordance with established processes regarding developments related to vessel and commercial waterfront facilities associated with space transportation activities, pertaining to international regulations, domestic regulations, or both; policies; and third-party consensus standards;
  - (b) Apply policies and guidance for novel vessels/systems associated with space launch and reentry activities to ensure a degree of safety and security consistent with regulatory requirements for traditional vessels and waterfront facilities; and
  - (c) As appropriate, contribute materials to the central, digital library referenced in section 15(a)(1)(e) of this Instruction.
- b. Assistant Commandant for Response Policy (CG-5R).
- (1) The Director of Emergency Management (CG-5RI) is responsible for procedures to respond to incidents related to amateur, commercial, and government space transportation activities occurring in or adjacent to the marine environment. Offices within this Directorate should:
- (a) Provide updates to relevant Assistant Commandants, Areas, Districts, field units, FAA-AST, and other federal stakeholders of developments in Coast Guard directives and procedures related to space launch and reentry activities;
  - (b) Collaborate with Offices within Commandant (CG-5PW) and Areas to better coordinate risk assessment procedures and standards for agreements with NASA, USAF, FAA, USSF, and any U.S. Government agencies involved in space launch and reentry activities;
  - (c) Collaborate with Offices within Commandant (CG-5PW) and Areas to better coordinate risk assessment procedures and standards for LOIs with commercial operators involved in space launch and reentry activities;

- (d) Assess federal regulations to address response planning and actions in the event a space launch or reentry activity involves the release of pollutants into the marine environment, as necessary;
  - (e) Lead and support national and international SAR forums in assessing and mitigating the risks posed by space launch and reentry activities to the global SAR system. These may include collaboration with members of the National SAR Committee, State SAR Coordinators, or other groups, as necessary;
  - (f) Pursuant to the National Oil and Hazardous Substances Pollution Contingency Plan (40 C.F.R. 300), ensure affected Area Contingency Plans address oil or hazardous substance effects associated with space launch and reentry incidents, as applicable;
  - (g) Incorporate language into the Strategic Planning Direction requiring a Coast Guard representative to work directly with federal and commercial operators pre-coordinating the rescue of flight crews and commercial space flight participants. At a minimum, this representative will be the subject matter expert to the civil SAR system, support real-time coordination with Coast Guard or international Rescue Coordination Centers, and support Coast Guard crews with any quick reference cards capturing initial pollution response actions, communication procedures, etc., as needed; and
  - (h) As appropriate, contribute materials to the central, digital library referenced in section 15(a)(1)(e) of this Instruction.
- (2) The Director of Law Enforcement, Maritime Security, and Defense Operations (CG-5RE) is responsible for procedures that mitigate the risks associated with amateur, commercial, and government space launch and reentry activities occurring in or adjacent to the marine environment. This may include collaboration with other Assistant Commandants, Areas, Districts, and field units. Offices within this Directorate should:
- (a) Coordinate with FAA, NASA, USAF, USSF, and other government agencies involved in mitigating the risks to national security related to space launch and reentry activities occurring in or adjacent to the marine environment;
  - (b) Identify and catalog waterfront locations related to space launch and reentry activities that may qualify as maritime critical infrastructure or key resources;
  - (c) Maintain policy to deploy Coast Guard operational platforms for the enforcement of LAAs and other measures when the Operational Commander elects to employ this option to mitigate the risks associated with space launch and reentry activities; and
  - (d) As appropriate, contribute materials to the central, digital library referenced in section 15(a)(1)(e) of this Instruction.

- c. The Assistant Commandant for Capability (CG-7) is responsible for identifying and providing capabilities, competencies, capacity and developing standards for the staffing, training, equipping, sustaining, maintaining, and employing Coast Guard forces to meet mission requirements as these efforts relate to space launch and reentry activities occurring in or adjacent to the marine environment. This should include collaboration with other Assistant Commandants, Areas, Districts, and field units.
- d. The Assistant Commandant for Resources (CG-8) is responsible for ensuring required interagency agreements are in place with U.S. Government operators, in accordance with Financial Resource Management Manual – Procedures, COMDTINST M7100.4 (series) and the Department of Treasury Interagency Agreement Guide, to support any necessary reimbursement for Coast Guard operations related to space launch and recovery activities. Funds transferred under these agreements will be overseen by the Reimbursable Management Division under Commandant (CG-8). This may include collaboration with other Assistant Commandants, Areas, Districts, and field units.
- e. The Judge Advocate General (CG-094) is responsible for providing counsel to all relevant program offices and Operational Commanders and conducting legal review of instructions, policy, and associated documents developed by the Assistant Commandant Offices and operational planning undertaken by field units. Commandant (CG-094) will also assist with development of interagency agreements and provide support to international engagements, such as delegations to the International Maritime Organization.
- f. Area Commanders are responsible for ensuring alignment of local policies with national guidelines and established agreements with interagency partners where applicable. Working with or through Districts, Areas must ensure coordination of risk assessments, agreements, LOIs, and operational deployments in response to space launch and reentry activities occurring in or adjacent to the marine environment. Area Commanders should sign agreements and LOIs that span multiple Districts within their Area. Area staff should:
  - (1) Inform the Headquarters offices within Commandants (CG-5P), (CG-5R), (CG-7), (CG-8), and (CG-094) of developments in government, commercial, and amateur space launch and reentry activities occurring in or adjacent to the marine environment within their areas of responsibility;
  - (2) Collaborate with NASA, FAA, USAF, USSF, and other government agencies to understand the scope and variety of their missions and delineate Federal On-Scene Coordinator authority for each;
  - (3) Engage relevant internal stakeholders when the planning or execution of space launch and reentry activities involves multiple Districts or spans both Areas;
  - (4) Coordinate with government and commercial operators designing plans for the rescue of spaceflight crews and commercial space flight participants. This activity may be

- delegated to District Commanders if the launch or reentry activity is confined to a specific geographic area;
- (5) Coordinate the deployment of Area and District operational platforms, as necessary;
  - (6) Coordinate agreements in instances where space activity spans multiple Districts within the Area. For those space launch and reentry activities spanning both Areas, coordinate agreements or LOIs with Commandant (CG-5PW);
  - (7) Maintain detailed records that quantify resource allocations for space launch and reentry activities in support of U.S. Government operators, and submit these records to Commandant (CG-8); and
  - (8) As operational units become more adept at evaluating risk, document best practices and share them with Commandant (CG-5PW) to help shape future risk evaluation methodologies.
- g. District Commanders are responsible for evaluating risk assessments and determining the appropriate mitigation tools and strategy. District Commanders may sign LOIs that cover operations solely in their District. District staff should:
- (1) Inform Area Commanders of developments in space launch and reentry activities within their Districts as necessary;
  - (2) Serve as primary points of contact to relevant space launch and reentry activity stakeholders for specific activities within their District;
  - (3) In coordination with Commandant (CG-5PW), review license applications submitted to the AST for impacts to the MTS;
  - (4) Conduct or evaluate any risk assessments associated with space launch and reentry activities occurring in or adjacent to the marine environment;
  - (5) Working with government or commercial operators, identify necessary information and actions required to mitigate navigation safety risks. Such information and actions would include ascertaining anomalies and stand-off distances, timely development of MSI, and the need for initial or additional agreements or LOIs for launch or reentry activities that occur within the District;
  - (6) Engage with space launch and reentry activity stakeholders for activities within their District. This includes establishing agreements with U.S. Government or LOIs with commercial operators, as appropriate. These engagements should account for notification of hazardous material and pollution potential, timelines, and anomaly procedures. For those space launch and reentry activities reaching outside District's area of responsibility, coordinate agreements or LOIs with Area;
  - (7) Pass relevant information via the appropriate Area component to the correct Headquarters directorates or offices;



- (8) Work with Sectors to ensure the Coast Guard meets its commitments specified in agreements with other U.S. Government agencies. This includes establishing LAAs and other access control measures supporting operations control centers; patrolling locations to reduce emergency response times or support for the requesting agency's area access control measures; and conducting such exercises as necessary to ensure that operational commitments reflect operational needs;
  - (9) Verify documentation in MISLE, ALMIS, and USAIMS of Coast Guard activities associated with space launch and reentry activities occurring in or adjacent to the marine environment;
  - (10) Coordinate and oversee marine inspection and regulatory compliance for vessels involved in space launch and reentry operations;
  - (11) Coordinate the establishment and enforcement of RNAs, LAAs, or other access control measures as necessary;
  - (12) Develop appropriate sections in the District Contingency Plans to reflect space flight activity;
  - (13) Develop appropriate sections in their District SAR plans with relevant information for their SSR for space flight operations; and
  - (14) District Waterways staff should consult the Navigation Center's Waterways Risk Assessment and Support Division for assistance in reviewing any formal NSRAs: The contact information is: TIS-DG-NAVCEN-Waterways@uscg.mil.
- h. Captains of the Port (COTPs) are responsible for mitigating the risks to waterways users posed by space launch and reentry activities occurring in or adjacent to the marine environment. COTPs should:
- (1) Independently evaluate each launch or reentry operation;
  - (2) Identify and assess risks to the MTS during the proposed launch or reentry, incorporating hazard data and other information provided by the commercial operator in a NSRA or FAA flight safety assessment;
  - (3) If the commercial operator does not provide an NSRA or FAA flight safety assessment, and in accordance with Reference (c), assess the risk to the MTS using an appropriate level of NSRA or other risk management tools developed for space launch and reentry activities;
  - (4) Leverage a variety of tools to mitigate risk and provide notice of space activities occurring in or adjacent to the marine environment. These tools include Broadcast Notices to Mariners, AIS ATON, Local Notices to Mariners, Marine Safety Information Bulletins, LAAs, deployment of Coast Guard or Coast Guard Auxiliary assets, and coordination with interagency partners;

- (5) Participate in outreach meetings with relevant stakeholders, including commercial space operators and waterways users, to gauge changes in operational requirements. COTPs should coordinate information-sharing between all stakeholders, and coordinate with neighboring COTPs when space operations have cross-boundary impacts;
  - (6) At the discretion of the District Commander, assist in conducting risk assessments and identifying the level of communication with operators necessary to mitigate risks;
  - (7) At the discretion of the District Commander, fulfill operational commitments specified in agreements with government agencies, as appropriate;
  - (8) Establish and enforce LAAs or other access control measures and special local regulations as necessary to promote port safety and security in relation to space launch and reentry activities. If a large concentration of spectator craft is anticipated, determine if the launch or reentry will be a triggering event for marine event permitting;
  - (9) Inspect and ensure compliance with current regulations for U.S. inspected vessels used in the launch or reentry of space vehicles;
  - (10) Document, in MISLE, ALMIS, and USAIMS, all unit activities associated with space launch and reentry activities; and
  - (11) Ensure the Area Contingency Plan addresses oil or hazardous substance effects associated with space launch and reentry incidents. This includes incorporating space launch and reentry facilities and infrastructure within the Coastal Zone into risk assessments and area worst-case planning scenarios as applicable.
- i. Commanding Officers and Officers-in-Charge of underway resources should document unit activities and personnel hours associated with space transportation in MISLE and ALMIS.
15. **MEASUREMENTS.** Assistant Commandants (CG-5P), (CG-5R), and (CG-7) should analyze data entered in Coast Guard data systems to assess the overall risk of space launch and reentry activities occurring in or adjacent to the marine environment. These activities should be evaluated in terms of what was assessed (nature and location of the space transportation activity), the degree to which these activities affected the MTS and the marine environment, and the operational decision-making and resources allocated to implement LAAs and other risk mitigation efforts. The following data sources provide the inputs for data analysis.
- a. MISLE.
    - (1) Number of risk assessments conducted and the quantity of time, indicated by MISLE activity status dates, dedicated to conducting them;
    - (2) Number of agreements and LOIs between the Coast Guard and operators;

- (3) Number of Broadcast Notice to Mariner announcements, LAAs, RNAs, and other methods of controlling navigation, including COTP and VTS measures;
    - (a) For LAAs, record if the application is an individual, organization, or government entity; and the number of Coast Guard Auxiliary vessels used, if any, and their patrol hours.
  - (4) Number of violations of any Coast Guard rule or regulation established for or enforced during space operations;
  - (5) Number of inspections on vessels that are used in the launch or reentry of space vehicles, and the types of vessels that are being used for this operation;
  - (6) Number and extent of services provided for launch or reentry activities requiring Coast Guard SAR services (whether Coast Guard assumed SMC for a commercial launch or supported DOD as the designated SMC for U.S. Government launches and reentries); and
  - (7) Number and hours dedicated to National Environmental Policy Act (NEPA) reviews.
- b. ALMIS. Total cutter and boat hours dedicated to enforcement of LAAs and other deployable resource operations related to mitigating the risks associated with space transportation. Units must document resource hours with the utilization code 4999 under Marine Safety for Space operations.
- c. Measurements derived from stakeholder outreach:
- (1) From AST, NASA, USAF, and USSF, number of sites nationwide, using these categories:
    - (a) Launch site, reentry site (and indication if the site functions as both);
    - (b) Federal range.
  - (2) From AST, number, and type of commercial space operators nationwide; and
  - (3) Trend analysis of the above measures to determine sector growth.

16. FORMS. None.

17. REPORTS.

- a. Annual District Report. Districts engaging in risk assessments and mitigations of space launch and reentry activities should submit a "Space Launch and Reentry Activities Risk Report" memorandum through Area Commanders to Commandant (CG-5PW) for each fiscal year, no later than 15 November each year. The format and contents of this report will be developed over time given the rapidly changing nature of space launch and

reentry activities; Commandant (CG-5PW) should provide Districts the format of this report each year no later than 1 September.

- b. MISLE, ALMIS, and USAIMS Reports. The Commandants (CG-5P) and (CG-5R) staff should ensure that reports specific to space transportation activities are available in the Coast Guard Business Intelligence (CGBI) system.

18. SECTION 508. This policy is created to adhere to accessibility guidelines and standards as promulgated by the U.S. Access Board with consideration of Information and Communications Technology (ICT) requirements. If accessibility modifications are needed for this artifact, please communicate with the Section 508 Program Management Office (PMO) at [Section.508@uscg.mil](mailto:Section.508@uscg.mil). Concerns or complaints for non-compliance of policy and/or artifacts may be directed to the Section 508 PMO, the Civil Rights Directorate (<https://www.uscg.mil/Resources/Civil-Rights/>) for the Coast Guard, or to the U.S. Department of Homeland Security at [accessibility@hq.dhs.gov](mailto:accessibility@hq.dhs.gov).

19. REQUEST FOR CHANGES. Units and individuals may recommend changes via the chain of command to: [cgwwm@uscg.mil](mailto:cgwwm@uscg.mil).

/W. R. ARGUIN/  
Rear Admiral, U.S. Coast Guard  
Assistant Commandant for Prevention Policy

Appendix A. Applicable Excerpts from Title 14 CFR

Appendix B. FAA LOI Policy

## **Appendix A. Applicable Excerpts From Title 14 C.F.R.**

The following sections of Title 14, U.S. Code of Federal Regulations are applicable to this Instruction.

Note\* The regulations in parts 417 and 431 that are referenced in this section will be removed from the CFR in 2026 as per 85 FR 79566 (10 Dec 2020).

### **Amateur Rockets**

§ 1.1. (*excerpted*) “Amateur rocket” means an unmanned rocket that:

- (1) Is propelled by a motor or motors having a combined total impulse of 889,600 Newton-seconds (200,000 pound-seconds) or less; and
- (2) Cannot reach an altitude greater than 150 kilometers (93.2 statute miles) above the earth's surface.

§ 101.21(b). A person operating an unmanned rocket other than an amateur rocket as defined in § 1.1 of this Chapter must comply with 14 CFR Chapter III.

§ 420.3. Applicability. This part [“License to operate a launch site”] applies to any person seeking a license to operate a launch site or to a person licensed under this part. A person operating a site that only supports amateur rocket activities as defined in 14 CFR § 1.1, does not need a license under this part to operate the site.

### **Commercial Space Launch and Reentry activities**

§ 413.3. Who must obtain a license or permit.

- (a) A person must obtain a license in accordance with this section, unless eligible for an experimental permit under Paragraph (f) of this section.
- (b) A person must obtain a license to—
  - (1) Launch a launch vehicle from the United States;
  - (2) Operate a launch site within the United States;
  - (3) Reenter a reentry vehicle in the United States; or
  - (4) Operate a reentry site within the United States.
- (c) A person who is a U.S. citizen or an entity organized under the laws of the United States or any State must obtain a license to—
  - (1) Launch a launch vehicle outside the United States;
  - (2) Operate a launch site outside the United States;
  - (3) Reenter a reentry vehicle outside the United States; or
  - (4) Operate a reentry site outside the United States.
- (d) A foreign entity in which a United States citizen has a controlling interest must obtain a license to launch a launch vehicle from or to operate a launch site in—
  - (1) Any place that is outside the territory or territorial waters of any nation, unless there is an agreement in force between the United States and a foreign nation providing that such foreign nation has jurisdiction over the launch or the operation of the launch site; or

- (2) The territory of any foreign nation, including its territorial waters, if there is an agreement in force between the United States and that foreign nation providing that the United States has jurisdiction over the launch or the operation of the launch site.
- (e) A foreign entity in which a U.S. citizen has a controlling interest must obtain a license to reenter a reentry vehicle or to operate a reentry site in—
  - (1) Any place that is outside the territory or territorial waters of any nation, unless there is an agreement in force between the United States and a foreign nation providing that such foreign nation has jurisdiction over the reentry or the operation of the reentry site; or
  - (2) The territory of any foreign nation if there is an agreement in force between the United States and that foreign nation providing that the United States has jurisdiction over the reentry or the operation of the reentry site.
- (f) A person, individual, or foreign entity otherwise requiring a license under this section may instead obtain an experimental permit to launch or reenter a reusable suborbital rocket under part 437 of this Chapter.

## **2020 Updated Launch and Reentry License Requirements**

### § 450.3. Scope of Vehicle Operator License

- (a) **General.** A vehicle operator license authorizes a licensee to conduct one or more launches or reentries using the same vehicle or family of vehicles. A vehicle operator license identifies the scope of authorization as defined in paragraphs (b) and (c) of this section or as agreed to by the Administrator.
- (b) **Scope of launch.** A vehicle operator license authorizes launch, which includes the flight of a launch vehicle and pre- and post-flight ground operations as follows:
  - (1) Launch begins when hazardous pre-flight operations commence at a U.S. launch site that may pose a threat to the public. Hazardous pre-flight operations that may pose a threat to the public include pressurizing or loading of propellants into the vehicle, operations involving a fueled launch vehicle, the transfer of energy necessary to initiate flight, or any hazardous activity preparing the vehicle for flight. Hazardous pre-flight operations do not include the period between the end of the previous launch and launch vehicle reuse, when the vehicle is in a safe and dormant state.
  - (2) At a non-U.S. launch site, launch begins at ignition or at the first movement that initiates flight, whichever occurs earlier.
  - (3) Launch ends when any of the following events occur:
    - (i) For an orbital launch of a vehicle without a reentry of the vehicle, launch ends after the licensee's last exercise of control over its vehicle on orbit, after vehicle component impact or landing on Earth, after activities necessary to return the vehicle or component to a safe condition on the ground after impact or landing, or after activities necessary to return the site to a safe condition, whichever occurs latest;

(ii) For an orbital launch of a vehicle with a reentry of the vehicle, launch ends after deployment of all payloads, upon completion of the vehicle's first steady-state orbit if there is no payload deployment, after vehicle component impact or landing on Earth, after activities necessary to return the vehicle or component to a safe condition on the ground after impact or landing, or after activities necessary to return the site to a safe condition, whichever occurs latest;

(iii) For a suborbital launch that includes a reentry, launch ends after reaching apogee;

(iv) For a suborbital launch that does not include a reentry, launch ends after vehicle or vehicle component impact or landing on Earth, after activities necessary to return the vehicle or vehicle component to a safe condition on the ground after impact or landing, or after activities necessary to return the site to a safe condition, whichever occurs latest.

(c) **Scope of reentry.** A vehicle operator license authorizes reentry. Reentry includes activities conducted in Earth orbit or outer space to determine reentry readiness and that are critical to ensuring public health and safety and the safety of property during reentry flight. Reentry also includes activities necessary to return the reentry vehicle, or vehicle component, to a safe condition on the ground after impact or landing.

### **Flight Safety Analyses**

§ 450.113 Flight safety analysis requirements - scope.

(a) An operator must perform and document a flight safety analysis for all phases of flight, except as specified in paragraph (b) of this section, as follows -

(1) For orbital launch, from liftoff through orbital insertion, and through all component impacts or landings;

(2) For suborbital launch, from liftoff through all component impacts or landings;

(3) For disposal, from the initiation of the deorbit through final impact; and

(4) For reentry, from the initiation of the deorbit through all component impacts or landing.

(b) An operator is not required to perform and document a flight safety analysis for a phase of flight if agreed to by the Administrator based on demonstrated reliability. An operator demonstrates reliability by using operational and flight history to show compliance with the risk criteria in § 450.101(a) and (b).

450.115 Flight safety analysis methods.

(a) **Scope of the analysis.** An operator's flight safety analysis method must account for all reasonably foreseeable events and failures of safety-critical systems during nominal and non-nominal launch or reentry that could jeopardize public safety.

(b) Level of fidelity of the analysis. An operator's flight safety analysis method must have a level of fidelity sufficient to -

(1) Demonstrate that any risk to the public satisfies the safety criteria of § 450.101, including the use of mitigations, accounting for all known sources of uncertainty, using a means of compliance accepted by the Administrator; and

(2) Identify the dominant source of each type of public risk with a criterion in § 450.101(a) or (b) in terms of phase of flight, source of hazard (such as toxic exposure, inert, or explosive debris), and failure mode.

(c) Application requirements. An applicant must submit a description of the flight safety analysis methodology, including identification of:

(1) The scientific principles and statistical methods used;

(2) All assumptions and their justifications;

(3) The rationale for the level of fidelity;

(4) The evidence for validation and verification required by § 450.101(g);

(5) The extent to which the benchmark conditions are comparable to the foreseeable conditions of the intended operations; and

(6) The extent to which risk mitigations were accounted for in the analyses.

§ 450.147. Agreements.

(a) **General.** An operator must establish a written agreement with any entity that provides a service or property that meets a requirement in this part, including:

(1) **Launch and reentry site use agreements.** A Federal launch or reentry site operator, a licensed launch or reentry site operator, or any other person that provides services or access to or use of property required to support the safe launch or reentry under this part.

(2) **Agreements for notices to mariners.** Unless otherwise addressed in agreements with the site operator, for overflight of navigable water, the U.S. Coast Guard or other applicable maritime authority is to establish procedures for the issuance of a Notice to Mariners prior to a launch or reentry and other measures necessary to protect public health and safety.



## Appendix B. FAA LOI Policy



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 Parts 417, 420, 431, 433, 435, 437, and 450

**Statement of Policy on Use of Letter of Intent (LOI) Between United States Coast Guard (USCG) and a Commercial Space Operator<sup>1</sup> to Establish Procedures for Issuance of Notice to Mariners (NOTMAR) and Other Measures Necessary to Protect Public Health and Safety for a Launch or Reentry.**

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

**ACTION:** Policy Statement

**SUMMARY:** This action establishes the FAA's policy for accepting the attached LOI as a means of compliance with FAA regulations that require a written agreement between the operator and the USCG establishing procedures for the issuance of a NOTMAR prior to a launch or reentry. If additional measures beyond NOTMAR issuance are necessary to protect public health and safety, as specified in FAA regulations, the FAA will accept an LOI including those additional measures as an equivalent level of safety.

**DATES:** The policy described herein will be effective 19 October 2022.

**FOR FURTHER INFORMATION CONTACT:** For additional information concerning this action, contact Daniel Murray, Executive Director, Office of Operational Safety, via letter: 800 Independence Ave, SW, Washington, DC 20591; via email: [9-AST-Inquiries@faa.gov](mailto:9-AST-Inquiries@faa.gov); via phone: (202) 267-7793.

**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. To satisfy the FAA regulations, operators may use a means of compliance that has already been accepted by the FAA or propose an alternate

<sup>1</sup> An operator is a holder of a license or permit under 51 U.S.C. Subtitle V, chapter 509, but in this document it may also refer to an applicant applying for a license or permit.

approach. For flexibility, the FAA regulations<sup>2</sup> allow an operator to demonstrate that an alternative approach provides an equivalent level of safety to a regulatory requirement.

### **I. Background**

Unless otherwise addressed in agreements with the site operator, for overflight of navigable water, 14 CFR § 450.147(a)(2) requires an operator to provide a written agreement with the USCG or other applicable maritime authority establishing procedures for the issuance of a NOTMAR prior to a launch or reentry and other measures necessary to protect public health and safety. Section 450.147(b) requires the agreement to clearly delineate the roles and responsibilities of each party to support a safe launch or reentry. The FAA requires a similar agreement between the applicant and USCG in §§ 420.31(a), 431.75(b)(1), and 437.63(b)(1) that establishes procedures for the issuance of a NOTMAR.<sup>3</sup> Furthermore, under part 417, which sets forth the safety requirements for launch of an expendable launch vehicle, § 417.111(i)(5) requires an operator to describe its procedures to provide hazard information and communicate with the local USCG office to ensure that a NOTMAR is issued.

In the past, operators complied with this requirement by entering into a Memorandum of Agreement (MOA) with the USCG for the issuance of a NOTMAR. The USCG recently advised the FAA that it will no longer enter into MOAs with commercial entities due to restrictions on its legal authority. In order to ensure that operators can continue to meet the requirement for an agreement with the USCG regarding procedures for NOTMAR issuance, the FAA and USCG have developed an LOI template that will serve as a means of compliance with the FAA regulations requiring such an agreement between the applicant and USCG.

### **II. Discussion of the Policy**

The FAA's policy with respect to use of the template LOI to satisfy the requirement for an agreement with the USCG for NOTMAR issuance is as follows:

- (1) The LOI is a means of compliance with FAA regulations requiring a written agreement for issuance of a NOTMAR<sup>4</sup> because it expressly provides for NOTMAR issuance by the USCG and contains the same information and coordination requirements previously required of operators under MOAs. The LOI template delineates the roles and

<sup>2</sup> Sections 417.1, 420.1, 431.1, 435.1, 437.1, and 450.37 of title 14 of the Code of Federal Regulations provide applicants an option to demonstrate an equivalent level of safety to the requirements in parts 417 (Launch Safety), 420 (License to Operate a Launch Site), 431 (Launch And Reentry Of A Reusable Launch Vehicle), 435 (Reentry Of A Reentry Vehicle Other Than A Reusable Launch Vehicle), 437 (Experimental Permits), and 450 (Launch and Reentry License Requirements). An applicant for a license or permit to conduct a launch or reentry or to operate a launch or reentry site must demonstrate compliance with the requirements of the aforementioned parts of 14 CFR unless the applicant clearly and convincingly demonstrates that an alternative approach provides an equivalent level of safety to the requirement.

<sup>3</sup> Section 431.75(b)(1) also applies to a reentry per § 435.51. In addition to the requirements of part 433, per § 413.13, the FAA identified additional information necessary (similar to § 420.31(a)) for a determination that public health and safety, safety of property, and national security and foreign policy interests of the United States are protected during operation of a reentry site.

<sup>4</sup> 14 CFR § 417.111(i)(5), § 420.31(a), § 431.75(b)(1), § 437.63(b)(1), and § 450.147(a)(2).

responsibilities of the operator and USCG to support safe launch or reentry to the same extent as the MOAs previously used to meet this requirement.

(2) If additional measures beyond NOTMAR issuance are deemed necessary to protect public health and safety under 14 CFR § 450.147(a)(2), § 420.31(a), or § 431.75(b)(1), the FAA may accept a version of this LOI specifying all such additional measures as a separate means of compliance or make an equivalent level of safety determination as necessary. The template also contains the language embodied in past MOAs regarding the USCG's intent to conduct a risk assessment to determine what, if any, assets are appropriate to ensure public safety during a launch or reentry.

An applicant may submit an LOI that follows the attached template to demonstrate compliance with the following regulations requiring a written agreement with the USCG that establishes procedures for NOTMAR issuance: 14 CFR § 417.111(i)(5), § 420.31(a), § 431.75(b)(1), § 437.63(b)(1), and § 450.147(a)(2). If additional measures beyond NOTMAR issuance are necessary to protect public health and safety under 14 CFR § 450.147(a)(2), § 420.31(a), or § 431.75(b)(1), the FAA may accept an LOI that follows the attached LOI template and includes such additional measures as an alternate means of compliance or as an equivalent level of safety to those regulations as appropriate.

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.



Kelvin B. Coleman  
Associate Administrator for Office of Commercial Space Transportation