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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 91

[Docket No.: FAA-2015-3304; Notice No. 15-07]

RIN 2120-AK66

Temporary Flight Restrictions in the Proximity of Launch and Reentry Operations

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: This proposed rulemaking would expand the temporary flight restriction provisions for launch, reentry, and amateur rocket operations and make such temporary flight restrictions applicable to all aircraft—including non-U.S. registered aircraft. The FAA also proposes revised language for consistency with other temporary flight restriction provisions and commercial space regulations and definitions. This proposed action would enhance safety in the affected airspace and would improve the readability of temporary flight restriction requirements.

DATES: Send comments on or before [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: Send comments identified by docket number FAA-2015-3304 using any of the following methods:

- **Federal eRulemaking Portal:** Go to <http://www.regulations.gov> and follow the online instructions for sending your comments electronically.

- Mail: Send comments to Docket Operations, M-30; U.S. Department of Transportation (DOT), 1200 New Jersey Avenue, SE., Room W12-140, West Building Ground Floor, Washington, DC 20590-0001.
- Hand Delivery or Courier: Take comments to Docket Operations in Room W12-140 of the West Building Ground Floor at 1200 New Jersey Avenue, SE., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.
- Fax: Fax comments to Docket Operations at 202-493-2251.

Privacy: In accordance with 5 USC 553(c), DOT solicits comments from the public to better inform its rulemaking process. DOT posts these comments, without edit, including any personal information the commenter provides, to www.regulations.gov, as described in the system of records notice (DOT/ALL-14 FDMS), which can be reviewed at www.dot.gov/privacy.

Docket: Background documents or comments received may be read at <http://www.regulations.gov> at any time. Follow the online instructions for accessing the docket or go to the Docket Operations in Room W12-140 of the West Building Ground Floor at 1200 New Jersey Avenue, SE., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

FOR FURTHER INFORMATION CONTACT: For technical questions concerning this action, contact Paul Eure, Airspace Regulations Team, AJV-113, Federal Aviation Administration, 800 Independence Avenue SW., Washington, DC 20591; telephone (202) 267-8745; e-mail paul.eure@faa.gov.

For legal questions concerning this action, contact Robert Frenzel, Operations Law Branch, AGC-220, Federal Aviation Administration, 800 Independence Avenue SW., Washington, DC 20591; telephone (202) 267-3073; e-mail Robert.Frenzel@faa.gov.

SUPPLEMENTARY INFORMATION:

Authority for this Rulemaking

The FAA's authority to issue rules on aviation safety is found in Title 49 of the United States Code. Subtitle I, Section 106, describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the agency's authority.

This rulemaking is promulgated under the authority described in Subtitle VII, Part A, Subpart I, Section 40103, Sovereignty and use of airspace, and Subpart III, Section 44701, General requirements. Under section 40103, the FAA is charged with prescribing regulations to ensure the safety of aircraft and the efficient use of the navigable airspace. Under section 44701, the FAA is charged with prescribing regulations to ensure safety in air commerce.

This proposed regulation is within the scope of sections 40103 and 44701 because restricting aircraft operations from the area in which launch, reentry, and amateur rocket operations occur supports aviation safety and the efficient use of navigable airspace.

The Commercial Space Launch Act of 1984, as codified and amended at 51 U.S.C. Subtitle V—Commercial Space Transportation, Ch. 509, Commercial Space Launch Activities, 51 U.S.C. 50901-50923 (Chapter 509), authorizes the Department of Transportation and thus the FAA, through delegations, 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. 51 U.S.C. 50904, 50905. Chapter 509 directs the FAA to exercise 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. The FAA is also responsible for encouraging, facilitating, and promoting commercial space launches by the private sector. 51 U.S.C. 50903.

I. Executive Summary

14 CFR 91.143 authorizes the FAA to issue Notices to Airmen (NOTAM) prohibiting a person from operating any aircraft of U.S. registry in areas designated in the NOTAM for space flight operations. The FAA proposes to amend this provision to apply to all aircraft.

At the time of the promulgation of § 91.143, recovery operations were conducted outside of U.S. territorial boundaries, and therefore, the FAA could only restrict U.S. registered aircraft or aircraft flown by pilots using a FAA pilot certificate. This regulation, clarified in 1984, included launches (and potential emergency recovery operations) in support of the National Aeronautics and Space Administration (NASA) Space Shuttle program.

However, the initial applicability of this regulation does not adequately address present day space launch and recovery operations that are increasingly conducted within the boundaries of U.S. territory. Therefore, the agency proposes to amend this rule to better address present day operations to ensure that all aircraft—not only U.S. registered aircraft or aircraft flown by pilots using a FAA pilot certificate—are restricted from operating in airspace designated for launch, reentry, or amateur rocket operations.

Additionally, this amendment would allow the FAA to issue a NOTAM to

designate a temporary flight restriction (TFR) for launch, reentry, or amateur rocket operations involving Class 2 or 3 amateur rockets when it determines a TFR is necessary to maintain safety.

Lastly, the FAA proposes other language changes that would align the language used in § 91.143 with the terminology used in Chapter 509 and the FAA space transportation regulations and definitions. For example, the terms “launch” and “reentry” are defined in 14 CFR § 401.5 and are normally used to broadly categorize these types of operations. The FAA, therefore, proposes to replace “space flight operations” with “launch, reentry, or amateur rocket operation.”

The FAA believes these revisions would strengthen the understandability of these requirements while enhancing safety in the affected airspace.

II. Background

The language of “flight limitations in the proximity of space flight operations” as utilized in 14 CFR 91.143 was first promulgated in 1964 to support NASA’s Gemini and Apollo space operations. By restricting non-essential aircraft from the designated recovery area, the FAA intended to ensure the safe recovery of spacecraft while mitigating the risk of an aircraft collision. At the time this rule was promulgated most of these recovery operations occurred outside of U.S. territorial airspace and the FAA could restrict only U.S. registered aircraft or aircraft piloted under an FAA-issued airman certificate. These expanded regulations were clarified in 1984, to include launch operations (and potential emergency recovery operations) in support of NASA’s space shuttle program.

The FAA now issues TFRs only for the airspace over the territory of the United States extending out to 12 nautical miles from the coastline. Since rule promulgation in

1984, an increasing number of rocket launches now occur over U.S. territorial airspace. The FAA therefore believes it is necessary to update regulations to align them with current practice.

In recent years, because technological changes have resulted in an increased growth of larger amateur rockets with greater power, the FAA has issued NOTAMs under § 91.143 to designate TFRs to segregate Class 2 and 3 amateur rockets from all other users of the National Airspace System (NAS). Class 2 and 3 amateur rockets operated under 14 CFR part 101 are capable of operating up to 93.2 miles with multiple stages. Persons intending to operate a Class 2 or 3 rocket in a manner that requires a waiver to 14 CFR part 101 subpart C, must submit a proposal for waiver or authorization to the FAA. This includes proposals to launch a Class 2 or 3 amateur rockets into controlled airspace, which may require the FAA to implement a TFR to ensure safety.

The process for the development of a TFR is extensive. For example, commercial space operators are required to file an application for a permit or license in order to conduct commercial space operations. The FAA reviews the application to determine ground and airborne hazard areas. The FAA then analyzes these proposals for safety impact, and then issues a permit or license for the operation. This license or permit application includes a letter of agreement between the operator and Air Traffic Control that may include special provisions that determine the area covered by a TFR along with detailed operational directives. Accordingly, in these circumstances, the FAA issues a NOTAM to designate a TFR that encompasses the hazardous areas necessary to avoid collisions with other NAS users.

While TFRs may impose an inconvenience to NAS users, they are necessary to provide the highest level of safety. From an efficiency standpoint, the FAA strives to integrate all operations into the NAS. The operations of most launch vehicles could result in scenarios that are hazardous to other NAS users that may be in the vicinity of the operation. The use of a TFR for the segregation of other NAS users from commercial space operations and Class 2 and 3 amateur rockets is key to ensuring safety—when it is determined that a TFR is required.

Therefore, by expanding the applicability of the TFR provision to amateur rocket operations, this proposed rulemaking would codify the FAA’s ability to establish a TFR for a Class 2 or 3 amateur rocket operation, when it determines a TFR is necessary to maintain safety.

III. Discussion of the Proposal

A. Applicability

The FAA has frequently used, without incident or accident, TFRs to segregate hazardous launch, reentry, and amateur rocket operations from all other NAS users (operating by visual and instrument flight rules). While § 91.143 was intended to support NASA and DOD space operations outside U.S. airspace (over the ocean), in recent years commercial space and amateur rocket operations have increased over U.S. territorial airspace. The FAA issues TFRs only for the airspace over the territory of the U.S. extending 12 nautical miles from the coastline. Applying restrictions to all aircraft within this area is within the FAA’s statutory authority and is consistent with the purpose of these restrictions (i.e., to mitigate the risk of aircraft collision by segregating launch, reentry and amateur rocket operations from other NAS users).

Although current practice restricts all aircraft from areas designated by TFRs for launch, reentry and amateur rocket operations, this proposed change would ensure the applicability of the flight restrictions to U.S. and non-U.S. registered aircraft from entering into areas designated by TFR for launch, reentry, and amateur rocket operations.

Accordingly, the FAA proposes to expand the applicability of § 91.143 to all aircraft in order to mitigate the safety risk of aircraft operations in proximity to launch, reentry, and Class 2 or 3 amateur rocket operations.

B. Title and Regulatory Change

The FAA proposes revisions to the title and content of § 91.143 for: (1) consistency with other TFR provisions in 14 CFR part 91, (2) consistency with the commercial space regulations in 14 CFR chapter III, and (3) to include Class 2 and 3 amateur rockets.

Specifically, the FAA proposes replacing the title of § 91.143 “Flight limitation in the proximity of space flight operations” with “Temporary Flight Restrictions in the Proximity of Launch and Reentry Operations,” a title that more accurately reflects current practice and includes the use of the terms “temporary flight restrictions” and “launch and reentry operations.”

The FAA also proposes replacing terms in the content of § 91.143, such as “space flight operations” with “launch, reentry, or amateur rocket operations.” “Launch” and “reentry” are defined in 14 CFR § 401.5 and are normally used to describe launch or reentry vehicles going to or returning from orbit or outer space, or operations associated with orbital and suborbital flight. Current references to “space operations” encompass both launch and reentry.

Finally, to align regulatory language with current practice, the FAA proposes the inclusion of Class 2 and 3 amateur rockets for TFR issuance when the FAA determines the proposed operation presents a safety risk. A certificate of waiver or authorization for Class 2 or 3 amateur rocket launch would identify the designated hazard area used to determine the area to be covered by the TFR.

Although these revisions address commercial space and amateur rocket operations, TFR provisions would continue to be used for DOD and NASA space operations as originally intended.

IV. Regulatory Notices and Analyses

A. Regulatory Evaluation

Changes to Federal regulations must undergo several economic analyses. First, Executive Order 12866 and Executive Order 13563 direct that each Federal agency shall propose or adopt a regulation only upon a reasoned determination that the benefits of the intended regulation justify its costs. Second, the Regulatory Flexibility Act of 1980 (Public Law 96-354) requires agencies to analyze the economic impact of regulatory changes on small entities. Third, the Trade Agreements Act (Public Law 96-39) prohibits agencies from setting standards that create unnecessary obstacles to the foreign commerce of the United States. In developing U.S. standards, the Trade Act requires agencies to consider international standards and, where appropriate, that they be the basis of U.S. standards. Fourth, the Unfunded Mandates Reform Act of 1995 (Public Law 104-4) requires agencies to prepare a written assessment of the costs, benefits, and other effects of proposed or final rules that include a Federal mandate likely to result in the expenditure by State, local, or tribal governments, in the aggregate, or by the private sector, of \$100 million or more

annually (adjusted for inflation with base year of 1995). This portion of the preamble summarizes the FAA's analysis of the economic impacts of this proposed rule.

Department of Transportation Order DOT 2100.5 prescribes policies and procedures for simplification, analysis, and review of regulations. If the expected cost impact is so minimal that a proposed or final rule does not warrant a full evaluation, this order permits that a statement to that effect and the basis for it to be included in the preamble if a full regulatory evaluation of the cost and benefits is not prepared. Such a determination has been made for this proposed rule. The reasoning for this determination follows.

This proposed rule would expand the TFR provisions for launch, reentry, and amateur rocket operations. This proposed rule would formalize the current practice and apply the TFR to non-U.S. registered aircraft. No actions are required for U.S. entities. Since this proposed rule would merely amend language to improve the readability of the TFR requirements, formalize that current practice, and apply these restrictions to non-U.S. registered aircraft. The expected outcome would be a minimal impact with positive net benefits, and a regulatory evaluation was not prepared. The FAA requests comments with supporting justification about the FAA determination of minimal impact.

The FAA has therefore, determined that this proposed rule is not a "significant regulatory action" as defined in section 3(f) of Executive Order 12866, and is not "significant" as defined in DOT's Regulatory Policies and Procedures.

B. Regulatory Flexibility Determination

The Regulatory Flexibility Act of 1980 (Public Law 96-354) (RFA) establishes "as a principle of regulatory issuance that agencies shall endeavor, consistent with the objectives

of the rule and of applicable statutes, to fit regulatory and informational requirements to the scale of the businesses, organizations, and governmental jurisdictions subject to regulation.” To achieve this principle, agencies are required to solicit and consider flexible regulatory proposals and to explain the rationale for their actions to assure that such proposals are given serious consideration.” The RFA covers a wide-range of small entities, including small businesses, not-for-profit organizations, and small governmental jurisdictions.

Agencies must perform a review to determine whether a rule will have a significant economic impact on a substantial number of small entities. If the agency determines that it will, the agency must prepare a regulatory flexibility analysis as described in the RFA.

However, if an agency determines that a rule is not expected to have a significant economic impact on a substantial number of small entities, section 605(b) of the RFA provides that the head of the agency may so certify and a regulatory flexibility analysis is not required. The certification must include a statement providing the factual basis for this determination, and the reasoning should be clear.

Since all U.S. entities are covered by current practice, this proposed rule would expand the applicability of TFR provisions for launch, reentry and amateur rocket operations to all aircraft, including non-U.S. registered aircraft. The expected outcome would have only a minimal impact on any small entity affected by this rulemaking action. Therefore, as provided in section 605(b), the head of the FAA certifies that this rulemaking will not result in a significant economic impact on a substantial number of small entities.

C. International Trade Impact Assessment

The Trade Agreements Act of 1979 (Public Law 96-39), as amended by the Uruguay Round Agreements Act (Public Law 103-465), prohibits Federal agencies from establishing standards or engaging in related activities that create unnecessary obstacles to the foreign commerce of the United States. Pursuant to these Acts, the establishment of standards is not considered an unnecessary obstacle to the foreign commerce of the United States, so long as the standard has a legitimate domestic objective, such as the protection of safety, and does not operate in a manner that excludes imports that meet this objective. The statute also requires consideration of international standards and, where appropriate, that they be the basis for U.S. standards. The FAA has assessed the potential effect of this proposed rule and determined that it would respond to a domestic safety objective and not considered an unnecessary obstacle to trade.

D. Unfunded Mandates Assessment

Title II of the Unfunded Mandates Reform Act of 1995 (Public Law 104-4) requires each Federal agency to prepare a written statement assessing the effects of any Federal mandate in a proposed or final agency rule that may result in an expenditure of \$100 million or more (in 1995 dollars) in any one year by State, local, and tribal governments, in the aggregate, or by the private sector; such a mandate is deemed to be a "significant regulatory action." The FAA currently uses an inflation-adjusted value of \$155 million in lieu of \$100 million. This proposed rule does not contain such a mandate; therefore, the requirements of Title II of the Act do not apply.

E. Paperwork Reduction Act

The Paperwork Reduction Act of 1995 (44 U.S.C. 3507(d)) requires that the FAA consider the impact of paperwork and other information collection burdens imposed on the

public. The FAA has determined that there would be no new requirement for information collection associated with this proposed rule.

F. International Compatibility and Cooperation

(1) In keeping with U.S. obligations under the Convention on International Civil Aviation, it is FAA policy to conform to International Civil Aviation Organization (ICAO) Standards and Recommended Practices to the maximum extent practicable. The FAA has determined that there are no ICAO Standards and Recommended Practices that correspond to these proposed regulations.

G. Environmental Analysis

FAA Order 1050.1F identifies FAA actions that are categorically excluded from preparation of an environmental assessment or environmental impact statement under the National Environmental Policy Act in the absence of extraordinary circumstances. The FAA has determined this rulemaking action qualifies for the categorical exclusion identified in paragraph 312f and involves no extraordinary circumstances.

V. Executive Order Determinations

A. Executive Order 13132, Federalism

The FAA has analyzed this proposed rule under the principles and criteria of Executive Order 13132, Federalism. The agency has determined that this action would not have a substantial direct effect on the States, or the relationship between the Federal Government and the States, or on the distribution of power and responsibilities among the various levels of government, and, therefore, would not have Federalism implications.

B. Executive Order 13211, Regulations that Significantly Affect Energy Supply, Distribution, or Use

The FAA analyzed this proposed rule under Executive Order 13211, Actions Concerning Regulations that Significantly Affect Energy Supply, Distribution, or Use (May 18, 2001). The agency has determined that it would not be a “significant energy action” under the executive order and would not be likely to have a significant adverse effect on the supply, distribution, or use of energy.

C. Executive Order 13609, Promoting International Regulatory Cooperation

Executive Order 13609, Promoting International Regulatory Cooperation, promotes international regulatory cooperation to meet shared challenges involving health, safety, labor, security, environmental, and other issues and to reduce, eliminate, or prevent unnecessary differences in regulatory requirements. The FAA has analyzed this action under the policies and agency responsibilities of Executive Order 13609, and has determined that this action would have no effect on international regulatory cooperation.

VI. Additional Information

A. Comments Invited

The FAA invites interested persons to participate in this rulemaking by submitting written comments, data, or views. The agency also invites comments relating to the economic, environmental, energy, or federalism impacts that might result from adopting the proposals in this document. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. To ensure the docket does not contain duplicate comments, commenters should send only one copy of written comments, or if comments are filed electronically, commenters should submit only one time.

The FAA will file in the docket all comments it receives, as well as a report summarizing each substantive public contact with FAA personnel concerning this proposed rulemaking. Before acting on this proposal, the FAA will consider all comments it receives on or before the closing date for comments. The FAA will consider comments filed after the comment period has closed if it is possible to do so without incurring expense or delay. The agency may change this proposal in light of the comments it receives.

Proprietary or Confidential Business Information: Commenters should not file proprietary or confidential business information in the docket. Such information must be sent or delivered directly to the person identified in the FOR FURTHER INFORMATION CONTACT section of this document, and marked as proprietary or confidential. If submitting information on a disk or CD ROM, mark the outside of the disk or CD ROM, and identify electronically within the disk or CD ROM the specific information that is proprietary or confidential.

Under 14 CFR 11.35(b), if the FAA is aware of proprietary information filed with a comment, the agency does not place it in the docket. It is held in a separate file to which the public does not have access, and the FAA places a note in the docket that it has received it. If the FAA receives a request to examine or copy this information, it treats it as any other request under the Freedom of Information Act (5 U.S.C. 552). The FAA processes such a request under Department of Transportation procedures found in 49 CFR part 7.

B. Availability of Rulemaking Documents

An electronic copy of rulemaking documents may be obtained from the Internet by—

1. Searching the Federal eRulemaking Portal (<http://www.regulations.gov>);
2. Visiting the FAA's Regulations and Policies web page at http://www.faa.gov/regulations_policies or
3. Accessing the Government Printing Office's web page at <http://www.gpo.gov/fdsys/>.

Copies may also be obtained by sending a request to the Federal Aviation Administration, Office of Rulemaking, ARM-1, 800 Independence Avenue SW., Washington, DC 20591, or by calling (202) 267-9677. Commenters must identify the docket or notice number of this rulemaking.

All documents the FAA considered in developing this proposed rule, including economic analyses and technical reports, may be accessed from the Internet through the Federal eRulemaking Portal referenced in item (1) above.

List of Subjects in 14 CFR Part 91

Air traffic control, Aircraft, Airmen, Aviation safety.

The Proposed Amendment

In consideration of the foregoing, the Federal Aviation Administration proposes to amend chapter I of title 14, Code of Federal Regulations as follows:

PART 91—GENERAL OPERATING AND FLIGHT RULES

1. The authority citation for part 91 is revised to read as follows:

Authority: 49 U.S.C. 106(f), 106(g), 1155, 40101, 40103, 40105, 40113, 40120, 44101, 44111, 44701, 44704, 44709, 44711, 44712, 44715, 44716, 44717, 44722, 46306, 46315, 46316, 46504, 46506-46507, 47122, 47508, 47528-47531, 47534, articles 12 and 29 of the Convention on International Civil Aviation (61 Stat. 1180), (126 Stat. 11).

2. Revise § 91.143 to read as follows:

§ 91.143 - Temporary flight restrictions in the proximity of launch and reentry operations.

No person may operate an aircraft contrary to a Temporary Flight Restriction established by the Administrator in a Notice to Airman (NOTAM) within an area designated for a launch, reentry, or amateur rocket operation, unless authorized by ATC.

Issued under authority provided by 49 U.S.C. 106(f), 40103(b), and 44701(a) in Washington, DC, on August 18, 2015.

Jodi S. McCarthy
Director, Airspace Services

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