§ 1430.211 [Amended]

■ 9. Amend § 1430.211 in paragraph (a) by removing the words ''September 30, 2007'' and adding, in their place, the words ''September 30, 2012.''

■ 10. Amend § 1430.212 by revising the section heading and adding paragraph (c) to read as follows:

§ 1430.212 Contract Modifications and Statutory Changes in Program.

* * * * *

(c) Payments otherwise due under this subpart or the program will be adjusted or denied to the extent provided for by a statutory change in program eligibilities or requirements of any kind irrespective of whether the program contract preceded the statutory change. Operations will be given the option of accepting the changes or terminating the contract.

■ 11. Amend § 1430.213 by revising paragraph (a) to read as follows:

§ 1430.213 Reconstitutions.

(a) A dairy operation receiving MILC benefits may reorganize or restructure such that the constitution or makeup of its operation is reconstituted in another organizational framework. However, any operation that reorganizes or restructures after October 1, 2007, is subject to a review by FSA to determine if the operation was reorganized or restructured for the sole purpose of receiving multiple or additional MILC payments.

* * * * *

Signed in Washington, DC, on December 1, 2008.

Teresa C. Lasseter,

Executive Vice President, Commodity Credit Corporation.

[FR Doc. E8–28710 Filed 12–1–08; 4:15 pm]

BILLING CODE 3410–05–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Parts 1, 101, 400, 401, and 420

[Docket No. FAA–2007–27390; Amendment Nos. 1–62, 101–8, 400–2, 401–6, and 420–4]

RIN 2120–2120–AI88

Requirements for Amateur Rocket Activities

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: This final rule amends amateur rocket regulations to preserve the level of safety associated with amateur rocketry and to reflect current industry practice. The new regulations update and align FAA regulations with widely used advances in the amateur rocket industry, specify the required information collected from operators of advanced amateur rocket launches, and define amateur rocket classifications. This action also corrects minor inconsistencies in the current rule.

DATES: These amendments become effective February 2, 2009.

FOR FURTHER INFORMATION CONTACT: For technical questions concerning this final rule contact Charles P. Brinkman, Licensing and Safety Division (AST–200), Commercial Space Transportation, Federal Aviation Administration, 800 Independence Avenue, Washington, DC 20591, telephone (202) 267–7715, e-mail *Phil.Brinkman@faa.gov*. For legal questions concerning this final rule contact Gary Michel, Office of the Chief Counsel, Federal Aviation Administration, 800 Independence Avenue, Washington, DC 20591, telephone (202) 267–3148.

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 III, Sections 40102, 40103, 40113–40114, and 44701–44702. Under those sections, the FAA is charged with prescribing regulations that govern air traffic rules on the flight of aircraft (which include unmanned rockets). This regulation is within the scope of that authority because it defines classes of unmanned rockets and details the information the FAA would require to issue a certificate of waiver or authorization to allow launching of an amateur rocket.

Background

Historically, the FAA relied on State and local regulation, voluntary self-regulation, and its own analysis to fulfill its oversight responsibility for unmanned rocket operations under part 101. Until now, the voluntary self-regulation and State and local regulations adequately protected the public and ensured safe operation of amateur rockets. Amateur rocket performance continued to improve and participation in amateur rocket launches increased significantly.

The FAA believes these activities need appropriate regulation for continued safe operation. This rulemaking is intended to preserve the safety record of amateur rocket activities, address inconsistencies, and clarify existing amateur rocket regulations.

Summary of the NPRM

The Requirements for Amateur Rocket Activities notice of proposed rulemaking (NPRM) published in the **Federal Register** on June 14, 2007 (72 FR 32816).

The proposal added two new categories of amateur rocket operations and amended the definitions of the existing two categories. The new category structure would be numbered from Class 1 to Class 4. The two new categories would be Class 3—High-Powered Rocket and Class 4—Advanced High-Power Rockets. These two new categories would capture amateur rockets that require significant FAA analyses to determine whether they can be safely operated within the National Air Space (NAS). The Class 1 and Class 2 rocket categories, meanwhile, would be slightly modified to incorporate current definitions of model rocket and large model rocket, respectively.

We proposed to re-classify the existing information requirements and operating limitations currently required before a proposed launch for the more advanced amateur rocket activities. Low risk Class 1—Model Rocket operators would continue to be exempt from information requirements. Operators of Class 2—Large Model Rockets would continue to provide their names, addresses, highest anticipated altitude, location of the launch, date, time, and duration of the launch event. This information enables us to take appropriate action to ensure safe operation in the NAS.

The notice also proposed to specify reporting practices for the new category Class 3 and Class 4 rockets. Operators of rockets with these characteristics generally file for a certificate of waiver or authorization to conduct their operations. They are exempt from launch license regulations in part 400. Operators are often contacted for additional information when the FAA receives their waiver application. As proposed, most, if not all, information would be submitted on the initial waiver application, which would save the FAA and the operator's time and expense.

Amateur rocket regulations were written when the amateur rocket community used mainly solid rocket motors. Now the amateur rocket

community also uses liquid propellants. We proposed to redefine amateur rocket activity to reflect this advanced rocket environment and codify safe practices being used by the amateur rocket community.

Summary of Comments

The FAA received comments from 33 entities including rocketry associations, a pilot association, and individuals. Associations commenting on behalf of their memberships include the National Association of Rocketry (NAR), Tripoli Rocketry Association (TRA), Rocketry Association of California (ROC), Rocketry of Central Carolina, and the Aircraft Owners and Pilots Association (AOPA). Many individual commenters also identified themselves as members of these organizations.

In general, commenters supported the proposed requirements and suggested several changes. The comments fall into the following categories:

- Definition of classes for amateur rockets;
- Prohibition of amateur rocket activities within 5 miles of an airport;
- Separation distances from amateur rocket activities and participants, and persons or property not associated with the activities;
- Need for the presence of someone at least 18 years old;
- Need to take measures to control any fire caused by amateur rocket activities; and
- Specific information and notice requirements.

Discussion of the Final Rule

Below is a more detailed discussion of the rule as it relates to the comments we received.

Amateur Rocket Definitions

The FAA proposes to define *amateur rocket* as an unmanned rocket propelled by a motor or motors having a combined total impulse of 889,600 Newton-seconds (200,000 pound-seconds) or less, and cannot reach an altitude greater than 150 km (93.2 statute miles) above the earth's surface.

The ROC commented that the value of 889,600 Newton-seconds falls in the middle of the ''T'' impulse range, using the values in common usage by amateur rocket hobbyists. As a result, the value in the NPRM definition does not correspond with any natural dividing line between impulse levels.

The ROC recommended the FAA increase the total impulse limit for amateur rockets from 889,600 Newton-seconds to 1,310,720 Newton-seconds. The FAA believes the current total impulse limit represents a reasonable boundary based on the potential performance of a rocket with that total impulse.

The FAA adopts the definition language in § 1.1, as proposed.

Proposed § 101.22 would require an amateur rocket be launched on a suborbital trajectory. Two individual commenters suggested the FAA begin to consider rulemaking for amateur rockets that may go into Earth orbit. One addressed the limit of 150 km specified in § 1.1. The second suggested the FAA re-examine the requirement that amateur rockets be suborbital, as proposed in § 101.22. The FAA believes that 150 km is the best limit for amateur rocket launch operations. Any rocket that goes above the 150 km altitude limit will involve licensing issues, i.e., foreign policy, national security, and safety concerns.

Location of Amateur Rocket Regulations

The FAA proposed to move the rules governing operation of model rockets from Subpart A—General (§ 101.1) to Subpart C—Unmanned Rockets (§ 101.21). This proposal would align all definitions and operating requirements for unmanned rockets in a single subpart. We would continue to allow model rockets to operate without FAA oversight. We received no comments on this action. The FAA adopts this proposal without change.

Amateur Rocket Definitions

We proposed two new classes of amateur rockets. We defined Class 1 as an amateur rocket using less than 125 grams (4.4 ounces) of slow-burning propellant and weighing no more than 454 grams (16 ounces) including the propellant. We defined Class 2 as an amateur rocket using less than 125 grams (4.4 ounces) of slow-burning propellant and weighing no more than 1,500 grams (53 ounces) including propellant.

The NAR, ROC, and 13 individual commenters noted that the only difference between Class 1 and Class 2 is weight. The NAR conducted computer flight simulations of these two classes of amateur rockets to demonstrate the ''heavier models have far less velocity and altitude potential.'' The NAR's flight experience with rockets meeting the specifications of both classes indicates that both types can be flown using the operating limitations proposed for Class 1. The NAR, as well as the other commenters on this section, recommended combining Class 1 and Class 2 into a single classification—Class 1. The other classes would be renumbered. Therefore, requirements specified in the NPRM for Class 3 and Class 4 now apply to Class 2.

The FAA created the two classes, model rocket and large model rocket, in 1994. Since that time amateur rocket hobbyists have established a history of safe operation for large model rockets. We have analyzed the performance of proposed large model rockets, in light of NAR's suggestion, and found they can cause more significant damage to persons or property than model rockets. However, neither model rockets nor large model rockets can affect air traffic if operated in accordance with this regulation. Since local ordinances cover hazards due to the reckless use of model and large model rockets on ground-based property and persons, the FAA agrees that combining these two classes is appropriate. Therefore, the FAA combines the proposed Class 1—Model Rocket and Class 2—Large Model Rocket into a single Class 1—Model Rocket. We have decided the operating limitations contained in § 101.24 of the NPRM are not necessary for the combined Class 1 Model Rockets, and, therefore, proposed § 101.24 is removed.

We proposed a new Class 3—High-Power Rocket as an amateur rocket other than a model rocket or large model rocket propelled by a motor or motors having a combined total impulse of 163,840 Newton-seconds (36,818 pound-seconds) or less.

Several commenters recommended the upper limit for Class 3 be reduced from 163,840 Newton-seconds to 40,960 Newton-seconds. They stated this reduction would place the upper limit at the ''O'' class, as documented in the TRA safety code. Some commenters noted that a rocket carrying a motor above the ''O'' class, or 40,960 Newton-seconds, could reach altitudes greater than 7,620 meters (25,000 feet). These commenters suggest any rocket with the ability to reach greater altitudes belongs in Class 4—Advanced High-Power Rockets.

The FAA agrees. In addition to creating a class of rocketry that is inconsistent with the TRA safety code, the proposal, if adopted, would be inconsistent with the 2008 National Fire Protection Association (NFPA) 1127 Code for High-Power Rockets. This code also addresses rockets having total impulse up to 40,960 Newton-seconds (9,208 pound-seconds) or ''O'' motor class. Further, most amateur rocket activities involve rockets with a total impulse of 40,960 Newton-seconds or less. The FAA has reconsidered this proposal and revises the criteria and class for high-power rockets. The Class 2—High Power Rocket is defined as having a combined total impulse of

40,960 Newton-seconds (9,208 pound-seconds).

Operating Limitations

We proposed the following general operating limitations for amateur rocket activities:

An amateur rocket must be:

- Launched on a suborbital trajectory,
- Unmanned, and
- Not cross into the territory of a foreign country unless there is an agreement between the United States and the country of concern.

We further included a condition that we may specify additional operating restrictions necessary to ensure that air traffic is not adversely affected, and public safety is not jeopardized.

We received no comments on this section. These requirements are adopted, as proposed, although the section is renumbered as § 101.23.

We proposed an additional operating limitation for Class 1 model rockets in proposed § 101.23. Specifically, persons operating this class of rocket must do so in a manner that does not create a hazard to persons, property, or other aircraft.

No comments were received on this proposal. However, after further review, we realize our intent was to apply this requirement to all classes of amateur rockets. We have removed any specific reference to Class 1 model rockets. These requirements now apply to amateur rockets in general.

Amateur Rocket Activities Within 5 Miles of an Airport

Proposed § 101.25(b) would prohibit operating High-Power Rockets within 8 kilometers (5 miles) of any airport boundary. We received comments from the NAR, ROC, Rocketry of Central Carolina, and 13 individual commenters stating the proposed rule does not provide flexibility for waiving this requirement. They commented further that the proposal does not consider airport size, frequency of flight operations, facilities, location, or history of safe operations, and maintained that it is unclear whether this requirement can be waived.

The FAA understands High-Power Rockets have a long history of safe operation within 5 statute miles of airport boundaries and agrees such operations should be allowed to continue, when appropriate, under a certificate of waiver or authorization.

Separation Distances From Amateur Rocket Activities

Proposed §§ 101.25 and 101.26 would stipulate that, no person may operate a high-power rocket or advanced high-power rocket within 457 meters (1,500 ft.) of any person or property not associated with the operation. The same separation distance exists in the current regulation. This distance from any person or property not associated with the operation also applies to Class 4—Advanced High-Power Rocket (§ 101.26).

Several commenters questioned the requirement regarding proposed separation distances. One commenter requested clarification regarding whether uninvolved public includes spectators. The commenters note the 2008 Edition of NFPA 1127, Code for High Power Rocketry, specifies differing minimum separation distances for spectators and participants that relate to the classifications of rocket motors. Commenters recommended the FAA adopt the NFPA standards that establish minimum separation distances between the launch point, spectators, and other exposed elements of the public. Commenters also noted that both NAR and TRA follow the safety requirements of the rocketry-related codes published by NFPA.

In developing this proposal, the FAA considered amateur rocketry events and participants involved, their families and friends, and a few casual spectators. Various rocketry groups do not include spectators in the 1,500 feet separation distance for persons or property not associated with the operations. In fact, the 2008 Edition of NFPA 1127 recognizes this disparity by providing separation distances for spectators and participants that are less stringent than the existing FAA requirement. However, we do not intend to encourage the presence of large crowds of spectators close to the launch because their presence would pose a significant threat to those spectators.

Most commonly launched amateur rockets are small and their hazards typically are also small. No serious accidents or incidents have been reported by NAR and TRA. While there have been no reported accidents associated with launches of larger amateur rockets, the risk associated with a large amateur rocket launch could be considerably greater. Participants and spectators, clearly associated with the activity, are not required to comply with the specified separation. We retain the provision in § 101.23(b) to specify additional operating limitations, as necessary, to ensure air traffic operations are not adversely affected, and public safety is not jeopardized. The FAA routinely attaches conditions to certificates of waiver or authorization for larger amateur rocket launches specifying separation distances greater than 1,500 feet applicable to spectators and persons not associated with the operation.

The FAA agrees, in principal, with the commenters' suggestion to adopt the NFPA standard. Generally, those engaged in amateur rocket activities have applied the 457 meters (1,500 ft.) distance requirement to the uninvolved public. As stated in the NPRM, the FAA seeks primarily to codify existing practice. Current amateur rocket activities, especially those under the auspices of various rocketry associations, have not resulted in harm to persons not associated with the operations. The FAA believes the 1,500 feet separation distance has served a useful purpose, and we retain this separation minimum in the final rule for High-Power Rockets and Advanced High-Power Rockets.

In consideration of the comments recommending the FAA adopt the NFPA 1127 separation distance requirements, we will require an additional separation distance from any person or property not associated with the operation. This decision is based on the minimum site dimensions provided in NFPA 1127. In the regulation, we instead specify this as an equivalent separation distance assuming the launch location is in the center of the site. This minimum separation distance is equal to one quarter of the expected maximum altitude or 457 meters (1,500 ft.), whichever is greater. Under normal conditions, this requirement will be adequate to protect public safety. When greater separation distances are required to protect spectators, the FAA will specify additional operating limitations in any certificate of waiver or authorization it may grant.

The FAA believes its principal responsibility is to protect those individuals and property not associated with the launch. This approach differs somewhat from that taken under 14 CFR Chapter III where the FAA counts spectators as part of the public in its risk analysis. The rationale for this different approach reflects the good job rocketry associations do in protecting spectators. Usually, spectators viewing amateur rocket launches are more closely associated with the operations than those viewing FAA-licensed launches and do not have as great a potential for a catastrophic accident, such as loss of life or serious injury.

Need for Presence of Someone at Least 18 Years Old

Proposed § 101.25(f) stipulates that no person may operate a High-Power Rocket unless a person at least 18 years old is present; that person is charged

with ensuring the safety of the operation and has final approval authority for initiating high-power rocket flight. The NAR supported this requirement. We received no other comments on this proposal. The FAA adopts § 101.25(f) as proposed.

Measures To Control Fire Caused by Amateur Rocket Activity

The FAA proposed that no person may operate a High-Power Rocket unless reasonable precautions are provided to report and control a fire caused by rocket activity. The NAR supported the proposal and went on to reference the NFPA 1127 Code for High Power Rocketry. Conversely, the ROC does not believe this provision is necessary or appropriate for codification.

We disagree. This requirement is consistent with our mission to ensure the safety of any person or property not associated with the operations. In developing the proposed rule, our goal was to eliminate duplicate requirements imposed by other Federal agencies or state or local governments. For example, this proposal contains no explicit requirements concerning hazardous materials because other Federal and local laws are applicable. The proposal is intended to protect the ''uninvolved'' public, on the ground and in the air. It would not supersede any other laws or ordinances. Operators of high-power and advanced high-power rockets would be required to take reasonable precautions to control and report a fire. Additionally, operators would comply with local ordinances as applicable, because a fire in some of the remote areas where amateur rocket launches occur could have serious consequences. The FAA adopts § 101.25(g) as proposed.

Operating Limitations for Advanced High-Power Rockets

The FAA proposed additional operating limitations for Advanced High-Power Rockets to ensure air traffic is not adversely affected and public safety is not jeopardized. We received no comments on this section. Therefore, the FAA adopts § 101.26 as proposed.

Notice Requirements

We proposed that FAA Air Traffic Control (ATC) must receive notice requirement information no less than 24 hours before and no more than 3 days before the amateur rocket activities take place.

Three commenters expressed concern that this proposed rule means a temporary flight restriction (TFR) must be in place before an amateur rocket launch can occur. The Aircraft Owners and Pilots Association (AOPA) recommended adding clear guidance to prohibit the use of TFRs for amateur rocket activities. Two individual commenters urged that there be no change in the current NOTAM procedures. Another commenter questioned the necessity of collecting personal information about amateur rocket operators and requiring operators to apply for a certificate of waiver or authorization before conducting amateur rocket activities.

The FAA stresses that the only change proposed was to the timeline for giving information to ATC. Operators must still notify ATC no less than 24 hours before amateur rocket activities begin. We proposed to change the second half of the timeline from 'no more than 48 hours' to 'no more than 3 days' before amateur rocket activities begin. This change would synchronize FAA regulations with FAA Order 7930.2, Para. 4–1–1, Notice to Airmen. We did not propose changes to requirements for NOTAMs or TFR procedures. Because we did not propose any changes, any ban on the use of TFRs for amateur rocket activities is outside the scope of this rulemaking.

The information requested in the notice requirement is needed to ensure the safety and integrity of the NAS, to issue a NOTAM, or take other action. The FAA adopts the timeline requirements in § 101.27, as proposed. However, the title was changed to include ATC notification for all launches.

Latitude and Longitude, Information Required 45 Days Before Rocket Activities, and Estimated Number of Rockets

As proposed in the NPRM under § 101.27(d), no person may operate an unmanned rocket, other than a Class 1—Model Rocket, unless that person provides the FAA with the location of the center of the affected area in latitude and longitude coordinates. Proposed § 101.29(a)(7) lists the launch site latitude and longitude among the detailed information requirements a person operating a High-Power Rocket must submit to the FAA when requesting a certificate of waiver or authorization. The information must be provided at least 45 days before the proposed operation.

The NAR, ROC, and eight individual commenters proposed a modification to this notice requirement. Previous sponsors of launch activities have submitted distances along a VOR radial to describe their location. An individual commenter noted that his organization has provided latitude and longitude coordinates in its certificate of waiver or authorization applications. According to this commenter, its organization has been asked to give the location as a VOR radial and distance. These commenters suggest there are other acceptable methods to locate a launch pad, such as checking distance along a VOR radial.

We find that latitude and longitude coordinates provide the most accurate method of fixing an exact location. Further, a latitude and longitude location is consistent with FAA charting practices. The FAA adopts the requirements of § 101.27(d) and § 101.29(a)(7), as proposed, except these requirements are located in § 101.29(a)(6).

The NAR, TRA, ROC, and 16 individual commenters questioned the need for the 45 days in advance of the rocket activity. An individual commenter noted that due to uncertainties in schedules and weather, among other things, participants in rocket launch events involving High-Power Rockets may not know if the event is really going to occur, if they are going to attend, and what rockets they are going to fly until shortly before the event, the day of the event, or even during the event. The commenter contends these last-minute changes occur for bona-fide reasons involving matters such as wind direction and speed and cloud cover that cannot be predicted with any assurance. The commenter further contends rocket launch events involve multiple participants who need to be able to have flexibility to lower their flight plans if weather deteriorates at the last minute or raise them if weather improves.

The NAR and ROC cite the current practice of completing one annual certificate of waiver or authorization for all their planned amateur rocket events for a calendar year. That certificate describes the types of amateur rockets typically launched at these events. The certificate of waiver or authorization requires notification to the local ATC facility 48 hours prior to each flight activity. The NAR and ROC recommend adoption of requirements that reflect current practice.

The FAA agrees. We intended to retain the current practice and have modified the language in the final rule to do so. When requesting a certificate of waiver or authorization, the FAA will require each person or organization to provide the requested information at least 45 days before the proposed operation. An organization can still submit an application for an annual certificate of waiver or authorization, detailing the events for the coming year.

As proposed in § 101.29(a)(1), a person operating a High-Power Rocket that requires a certificate of waiver or authorization must provide the information requested on each rocket to be flown. The NAR, TRA, ROC, and 12 individual commenters objected strenuously to this provision. The ROC noted that rocketry clubs typically file a single certificate of waiver or authorization application for the year. They detail the dates for the event and the types of amateur rockets they expect to be flown. What they actually fly will depend on how many people show up, what rockets they bring with them, what the weather conditions are, and other factors. They state that adopting the NPRM as written would require them to complete Form 7711–2 for each rocket they expect to fly. In the case of the ROC, this could mean deluging the FAA with ''multiple thousands of notices.'' One commenter calculated that for a typical weekend launch, he ''might bring 10 rockets, each of which can be flown with one of 10 different motors, and perhaps a similar number of pad and recovery choices, making 1,000 possible combinations. If there are 100 fliers at the event, the waiver documentation could be 100,000 pages.'' He then notes that Form 7711–2 requires the information to be in triplicate. All the commenters on this issue urge that the FAA require the current practice for these launch events—that is, an approximate number of rockets to be flown and an aggregate of information on those rockets. That would mean the maximum size, weight, and power to be flown, and the maximum altitude and radius expected for these rockets.

The FAA agrees and fully intended that current practice be reflected in the final rule. We now state that each person or organization must provide the information requested at least 45 days before the proposed operation and clarify that the 45-day requirement applies only when a certificate of waiver or authorization is necessary. Organizations may continue to aggregate the information and detail the maximum parameters they expect for a given event.

Information Requirement for Type of Propulsion, Fuel(s), Oxidizer(s), Manufacturer, and Certification

As proposed in the NPRM under § 101.29(a)(2), a person operating a Class 3—High-Power Rocket that requires a certificate of waiver or authorization must provide the FAA information on the type of propulsion, fuel(s), oxidizer(s), manufacturer, and certification, if any, for the rockets.

The NAR, TRA, ROC, and 11 individual commenters noted that requiring information on propulsion systems, fuels, oxidizers, manufacturers, and certifications does not contribute to preserving safety. The commenters recommended that this requirement be stricken entirely from the final rule. In lieu of striking the requirement, the NAR would note that the NFPA has established standards for the certification and production of amateur rocket motors in NFPA Code 1125, ''Code for the Manufacture of Model Rocket and High Power Rocket Motors, 2007 Edition.'' The NAR's Standards and Testing Committee tests motors to this standard, and NAR members can only use engines on its ranges that have been tested and passed these standards.

The FAA conducted more research into whether having knowledge of these elements has an impact on safety. We found that having information about the manufacturer and any certification of a rocket does not increase the FAA's ability to determine the safe operation of amateur rocket activities. However, we do need to know the type of propulsion, fuels, and oxidizers involved because some of them are highly explosive or toxic. Therefore, the FAA removes the manufacturer and certification information requirement from the final rule. We retain the propulsion, fuels, and oxidizers information requirement, as proposed.

Description of the Launcher(s)

As proposed in the NPRM under § 101.29(a)(3), operators must provide a description of the launcher(s) planned for their amateur rocket activities, including any airborne platform(s).

The NAR, TRA, ROC, and 11 individual commenters noted that requiring a description of the launcher does not contribute to preserving safety. They state there is no record of launcher-related failures resulting in an unsafe flight condition, life threatening injury, or property damage.

The FAA disagrees because there are documented incidents where a balloon launcher failure occurred and started a fire on the ground. In addition, we find that having a description of the launcher adds a safety benefit to amateur rocket activities. A launcher failure could cause the rocket to veer in a different direction than intended. The FAA adopts § 101.29(a)(3), as proposed.

Description of the Recovery System

As proposed in the NPRM under § 101.29(a)(4), operators must provide a description of their recovery system. The NAR, TRA, ROC, and 12 individual commenters propose this requirement be removed from the final rule. They maintain the FAA did not explain why such information is necessary for flight safety.

The FAA disagrees with these comments. This information allows the FAA to calculate the hazard area for an amateur rocket launch event. The FAA adopts § 101.29(a)(4), as proposed.

Additional Safety Procedures

As proposed in the NPRM under § 101.29(a)(8), operators must provide any additional safety procedures that will be followed. The NAR, TRA, ROC, and 11 individual commenters found this section to be vague and unnecessary. Several commenters proposed this section should be modified to make clear that flying on NAR safety codes is an acceptable method to report this information.

While the FAA believes the NAR and TRA safety codes contribute to the safety of amateur rocket activities, we cannot make a blanket requirement accepting these safety codes. The codes may change in the future. The FAA would then be bound to whatever those changes might be. We must have the ability to require additional information as circumstances or technology changes might demand. The FAA adopts § 101.29(a)(8), as proposed.

Miscellaneous Comments

One commenter suggested that § 101.29 be changed to require the information listed only for those flights that exceed 25,000 feet. TRA noted they have a precise procedure for reviewing and approving all flights held at TRA-sanctioned events that will exceed 24,000 feet in apogee. Since their criteria are similar to the information requirements detailed in the NPRM, they see no need to change the rule. The FAA disagrees because these requirements also apply to operations not sanctioned by TRA. The FAA adopts § 101.29, as proposed.

One commenter suggested that the rule exempt Class 1 Model Rockets from U.S. Postal Service (USPS) restrictions to allow mailing these ''common goods'' without special labeling and papers. The commenter suggested a number of other changes to the rule to facilitate shipping model rockets. These suggestions are outside the scope of this rulemaking. The FAA has no authority to release amateur rocket enthusiasts from USPS regulations, nor can we impose regulations not associated with aviation on the USPS.

Paperwork Reduction Act

Information collection requirements associated with this final rule have been

approved previously by the Office of Management and Budget (OMB) under the provisions of the Paperwork Reduction Act of 1995 (44 U.S.C. 3507(d)), and have been assigned OMB Control Number 2120–0027. There is no increase in paperwork required as a result of this rulemaking.

International Compatibility

In keeping with U.S. obligations under the Convention on International Civil Aviation, it is FAA policy to comply with 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 regulations.

Regulatory Evaluation, Regulatory Flexibility Determination, International Trade Impact Assessment, and Unfunded Mandates Assessment

Changes to Federal regulations must undergo several economic analyses. First, Executive Order 12866 directs 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 (Pub. L. 96–354) requires agencies to analyze the economic impact of regulatory changes on small entities. Third, the Trade Agreements Act (Pub. L. 96–39) prohibits agencies from setting standards that create unnecessary obstacles to the foreign commerce of the United States. In developing U.S. standards, this 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 (Pub. L. 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 final 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 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 final rule. The reasoning for this determination follows.

We will first discuss the non-quantified benefits and then discuss the quantified cost-savings benefits of this final rule.

Benefits

General

This final rule provides several benefits. General benefits provided include the updating, streamlining, and modernizing of the existing regulations for amateur rocket activities. More specific benefits are discussed below.

Maximum Altitude Definition

This final rule defines a maximum altitude of 150 kilometers or 492,120 feet for amateur rockets. This allows a prospective amateur rocket operator to determine if the proposed rocket can be classified as an amateur rocket and thus avoid the necessity and expense of obtaining a license. This altitude limit also provides a reasonable margin of safety for objects that are already in orbit. Although this final rule defines a maximum altitude for amateur rockets, for practical purposes, it is not imposing a new altitude limit on amateur rocket activities because the requirements of the existing rule for burn time and ballistic coefficient, which will be eliminated under this final rule, make it virtually impossible for an amateur rocket launched under the existing regulations to reach the altitude defined in this final rule.

Suborbital Requirement

This final rule requires that amateur rockets be launched in such a manner that they will not become orbital. The current rule has no such specific restriction. By specifically prohibiting orbital launches of amateur rockets, this provision of this final rule provides the benefit of protecting existing orbital objects, such as the International Space Station (ISS) and orbiting civil and military satellites, from a possible collision with an amateur rocket.

Not Cross International Boundary Requirement

The final rule requires that an amateur rocket not cross an international boundary unless an international treaty exists that permits such activity. We do not know of an amateur rocket sent from the United States that crossed an international boundary. Although, the rule will make this specific to the amateur rockets, it is generally necessary to have some kind of international agreement in order to cross international borders. The benefit provided by this provision of this final rule is that it helps prevent international incidents.

Elimination of Burn Time and Ballistic Coefficient Requirements

This final rule eliminates the existing requirements for a burn time of less than 15 seconds and a ballistic coefficient requirement of less than 12 pounds per square inch. The elimination of these requirements allows amateur rocket activities to operate in accordance with current industry practice and recognizes technological changes since the establishment of the existing regulations. In particular, the elimination of the burn time requirement allows for the optimum operation of liquid rockets.

Revision of Amateur Rocket Classes

Table B–1 shows a comparison of the existing amateur rocket classes and this final rule's rocket classes.

The existing amateur rocket rule has three classes of rockets: Model rockets, large model rockets, and others. These classes were categorized by weight of propellant, type of propellant, property of rocket, and operation as detailed in Table B–1. The term ''other'', as discussed in the NPRM, captures unmanned launches other than amateur launches. These would include FAA-licensed or permitted launches, as well as U.S. government launches.

This final rule provides for four classes of rockets: Class 1—Model Rockets; Class 2—High-Power Rockets; Class 3—Advanced High-Power Rockets; and a fourth non-numbered Class—Other. The detailed definition of these classes is shown in Table B–1.

The benefit of this final rule's classifications is that the new definitions are more closely aligned with current practices than are the existing classifications. In addition, for this final rule's Class 1 rockets, the FAA is removing the notification requirement thereby reducing the burden on those seeking to launch model rockets.

(Benefit Tables B–1 through B–3)

TABLE B–1—COMPARISON OF EXISTING AND FINAL RULE AMATEUR ROCKET CLASSES

Existing rule categories:	Final rule categories:
Model Rockets: • Uses no more than 4 ounces (113.5 grams) of propellant ..... • Uses a slow-burning propellant ..... • Is made of paper, wood, or breakable plastic ..... • Contains no substantial metal parts ..... • Weighs no more than 454 grams (16 ounces), including the propellant. Large Model Rockets: • Uses no more than 125 grams (4.4 ounces) of propellant. • Uses a slow-burning propellant. • Is made of paper, wood, or breakable plastic. • Contains no substantial metal parts. • Weighs no more than 1,500 grams (53 ounces) including propellant.	Class 1—Model Rockets: • Uses no more than 125 grams (4.4 ounces) of propellant. • Uses a slow-burning propellant. • Is made of paper, wood, or breakable plastic. • Contains no substantial metal parts. • Weighs no more than 1,500 grams (53 ounces) including propellant.
Other: • Undefined—every unmanned rocket other than a model or large model rocket.	Class 2—High-Power Rockets: • A rocket other than a Class 1, propelled by a rocket motor or motors having a combined total impulse of 40,960 N-sec (9,208 lb-sec) or less. Class 3—Advanced High-Power Rockets: • Any amateur rocket other than a Class 1 or 2. Other: • Any unmanned rocket that is not an amateur rocket.

Revision of Data Collection Process

Amateur rocket launches may require that data be provided to the nearest air traffic facility. In addition, for the larger amateur rockets, it may be necessary to apply for a waiver and provide the required data. Table B–2 shows the data requirements that must be reported to the nearest FAA air traffic control (ATC) facility.

TABLE B–2—AMATEUR ROCKET NOTICE REQUIREMENTS TO THE NEAREST AIR TRAFFIC FACILITY

	Existing rule			Final rule			
	Model rockets	Large model rockets	Other	Class 1—model rocket	Class 2—high-power rockets	Class 3—advanced high-power rockets	Other
Notice requirements to nearest ATC facility.	None	24 hrs	24 hrs	None	24 hrs	24 hrs	24 hrs.
Operator: Name(s) and Address(es).	.....	√	√	.....	√	√	√
Date/time the activity will begin.	.....	√	√	.....	√	√	√
Estimated number of rockets to be operated.	.....	√	√				
Estimated size and weight of each rocket.	.....	√	√				
Location of the center of the affected area.	.....	√	√	.....	√	√	√
Highest affected altitude	.....	√	√	.....	√	√	√
Duration of the activity	.....	√	√	.....	√	√	√
Date/time/duration	.....	√	√	.....	√	√	√
Other pertinent information requested by the FAA.	.....	√	√	.....	√	√	√

No person may operate an unmanned rocket, other than a Class 1—Model Rocket, unless that person gives the information shown in Table B–2 to the ATC facility nearest the intended operation no less than 24 hours before and no more than three days before beginning the operation. This final rule will expand the model rocket category to include what had been large model rockets. Previously, a person operating a large model rocket needed to provide the information shown on Table B–2 to the ATC facility. Notification is not required for the expanded Class 1—Model Rocket category under this final rule.

Table B–3 shows the information requirements for a certificate of waiver or authorization. As is shown on the table, no certificate of waiver or authorization is required to operate a Class 1–Model Rocket. With the expansion of this category to include what had been large model rockets, this final rule will reduce waiver requests.

This final rule will eliminate the requirement to obtain a license or permit for launches where the burn-time exceeds 15 seconds. Hence, the proposed launches that previously required a license or permit, now would only require a waiver or authorization from the FAA, and only if operating beyond the limitations listed in §§ 101.25 or 101.26. These limitations include operating in controlled airspace and within 8 kilometers (5 miles) of any

airport boundary without prior authorization by the FAA.

The primary difference between the information requirements in the existing rule and the new rule is that the information previously required as part of the request for a waiver or authorization was identified generally as ''a detailed description of the proposed operation.'' In practice, the type of information shown in Table B–3 was provided with the request for a waiver. However, the FAA often needed to request more detailed information. The asterisk indicates that the information typically is required only for more powerful or advanced amateur rockets. Some of the informational elements are typically not applicable for smaller rockets. The FAA believes a rule specifying the required information will actually reduce the burden on applicants.

The Table B–3 entries labeled current practice are not existing FAA regulations. By current practice we mean the FAA would typically ask for and amateur rocket operators would submit this information before a launch.

TABLE B–3—INFORMATIONAL REQUIREMENTS FOR A CERTIFICATE OF WAIVER OR AUTHORIZATION

	Existing rule			This final rule		
	Model rockets	Large model rockets	Other	Class 1—model rocket	Class 2—high power rockets	Class 3—advanced high power rockets
When a certificate of waiver or an authorization is required.						
Submission of Form 7711–2 (time before event).	No	45 days	45 days	No	45 days	45 days
Name of organization	√	√		√	√	
Name of responsible person		√	√		√	√
Permanent mailing address		√	√		√	√
FAR section and number to be waived.		√	√		√	√
Detailed description of proposed operation, such as:		√	√		√	√
Estimated number of rockets to be operated.			Current practice		√	√
Type of propulsion (liquid or solid), fuel(s), and oxidizer(s).			Current practice		√	√
Description of launcher(s) planned to be used, including any airborne platform(s).			Current practice*		√	√
Description of recovery system			Current practice*		√	√
Highest altitude, above ground level, expected to be reached.			Current practice		√	√
Launch site latitude, longitude, and elevation.			Current practice		√	√
Any additional safety procedures that will be followed.			Current practice		√	√
Maximum possible range			Current practice			√
Dynamic stability characteristics for the entire flight profile.			Current practice*			√
Description of all major rocket systems.			Current practice*			√
Description of other support equipment necessary for safe operation.			Current practice*			√
Planned flight profile and sequence of events.			Current practice*			√
All nominal impact areas within three standard deviations.			Current practice*			√
Launch commit criteria			Current practice*			√
Countdown procedures			Current practice*			√
Mishap procedures			Current practice*			√
Area of operation (Location, altitude, etc.).		√	√		√	√
Beginning (Date and hour)		√	√		√	√
Ending (Date and hour)		√	√		√	√
Area of operation (Location, altitudes, etc.).		√	√		√	√
Aircraft make and model		√	√		√	√
Sponsor of event		√	√		√	√
Sponsor's permanent mailing address.		√	√		√	√
Policing (Description of provisions for policing event).		√	√		√	√
Emergency facilities		√	√		√	√
Air Traffic control (Description of method of controlling air traffic).		√	√		√	√
Schedule of Events		√	√		√	√

TABLE B–3—INFORMATIONAL REQUIREMENTS FOR A CERTIFICATE OF WAIVER OR AUTHORIZATION—Continued

	Existing rule			This final rule		
	Model rockets	Large model rockets	Other	Class 1—model rocket	Class 2—high power rockets	Class 3—advanced high power rockets
Certification		√	√		√	√

A positive effect of the new classifications and definitions is that they allow for the unlicensed launching of liquid rockets at their optimum burn rates. Today, someone who wanted to launch a liquid rocket at its optimum burn rate would have to obtain a license that requires complicated analyses that can cost up to $100,000. An alternative would be to adjust the burn rate of the liquid rocket to meet the current requirements. This alternative would result in either a reduced rocket performance or reduced rocket safety. Therefore, this final rule provides some potential cost savings and performance and safety improvements.

Benefits Summary

As discussed above, this final rule provides benefits. The major benefits of this final rule are summarized below:

- Eliminate inconsistencies in the existing rules;
- Provide new definitions of amateur rocket categories that would allow amateur rocket operators to more easily determine what, if any, regulations they would have to comply with;
- Allow unlicensed launches of liquid rockets at optimum performance levels;
- Streamline and clarify the data collection process in cases where a proposed launch would require that the amateur rocket operator provide data to the FAA;
- Insure amateur rocket activities would be conducted in accordance with all international treaties;
- Insure that amateur rocket activities would not interfere with objects in orbit.
- Provide cost savings to both amateur rocket operators and the FAA.

Costs

Introduction

This section shows the costs of the existing rule, the estimated costs of this final rule, and the incremental costs of this final rule. The incremental costs are the costs of this final rule subtracted from the costs of the existing rule.

The costs of both the existing and this final rule are determined by multiplying the number of hours to perform a required task by the hourly cost of the person performing the task. The number of hours is estimated by the Office of Commercial Space Transportation (AST) of the FAA. The cost of an aerospace engineer is estimated by the Office of Policy and Plans (APO) of the FAA. The fully allocated hourly costs of an aerospace engineer are estimated to be $81.

Existing Rule Costs

Table C–1 shows that the total annual cost of the existing rule is estimated to be approximately $8,886,000. This includes the costs of Large Model Rockets and Other Rockets. No costs are estimated for Model Rockets. The costs are based on a total of 100 notifications to the FAA for Large Model Rockets and 200 annual waivers for Other Rockets.

Final Rule Costs

Table C–2 lists approximately $8,378,000 as the total annual cost of this final rule. This includes the costs of Class 2 and 3 amateur rockets. No costs are estimated for Class 1 amateur rockets. The costs are based on a total of 200 annual waivers, 198 for Class 2 rockets and 2 for Class 3 rockets.

The reason for the decrease in costs for Class 1 rockets from the existing rule to this final rule is that Large Model Rockets included in Class 1 rockets in this final rule generally no longer will require a notification to FAA and rarely require a waiver.

Incremental Final Rule Costs

Our incremental cost estimate equals the total cost of this final rule minus the total cost of the existing requirements.

Table C–3 lists the annual incremental cost of this final rule as about a negative $507,870. This represents a cost-saving benefit for the final rule. The study period for the costs of this final rule is estimated to be 10 years. The total 10-year cost savings of this final rule is estimated to be approximately $5,080,000 in current dollars with a present value of $3,567,000 with a discount rate of 7%. Thus, as the incremental cost estimate results in cost savings, the benefits of this rule exceed the costs.

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(Costs Tables C-1 through C-3)

Table C-1

Existing Rule - Notification and Waiver Information to be Submitted to FAA and Notification and Waiver Total Annual Costs

	Unmanned Rockets															Total Annual Cost of Existing Rule
	Model Rockets					Large Model Rockets					Other					
	Hours (A)	Rate (B)	Cost per Waiver	Annual Number of Waivers	Total Annual Cost of Waivers	Hours	Rate	Cost per Notification	Annual Number of Notifications	Total Annual Cost of Notifications	Hours	Rate	Cost per Waiver	Annual Number of Waivers	Total Annual Cost of Waivers	Total Annual Cost of Existing Rule
FAA(AST)																
Evaluation (2 people)	0	$ 81	$ -	0	$0	1	$ 81	$ 81	100	$ 8,100	264	$ 81	$ 21,384	200	$ 4,276,800	$ 4,284,900
Risk Analysis (1 person)							$ 81	$ -	100	$ -	50	$ 81	$ 4,050	200	$ 810,000	$ 810,000
Team Review/Mgmt Feedback (6 people)							$ 81	$ -	100	$ -	22	$ 81	$ 1,782	200	$ 356,400	$ 356,400
Mgmt Approval/ATC Coord (4 people)							$ 81	$ -	100	$ -	11	$ 81	$ 891	200	$ 178,200	$ 178,200
Total FAA (AST)	0	$ 81	$ -	0	$0	1	$ 81	$ 81	100	$ 8,100	347		$ 28,107	200	$ 5,621,400	$ 5,629,500
Launch Operator (Applicant)																
Waiver Request	0	$ 81	$ -	0	$0	0	$ 81	$ -	100	$ -	10	$ 81	$ 810	200	$ 162,000	$ 162,000
FAA Coordination						2	$ 81	$ 162	100	$ 16,200	20	$ 81	$ 1,620	200	$ 324,000	$ 340,200
Data Package Preparation						0	$ 81	$ -	100	$ -	170	$ 81	$ 13,770	200	$ 2,754,000	$ 2,754,000
Total Launch Operator (Applicant)	0	$ 81	$ -	0	$0	2	$ 81	$ 162	100	$ 16,200	200		$ 16,200	200	$ 3,240,000	$ 3,256,200
Grand Total	0	$ 81	$ -	0	$0	3	$ 81	$ 243	100	$ 24,300	547		$ 44,307	200	$ 8,861,400	$ 8,885,700

(A) Estimated by AST

(B) From APO Website - The fully allocated cost of an Aerospace Engineer.

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Table C-2

Final Rule - Waiver Information to be Submitted to FAA and Waiver Total Annual Costs

	Unmanned Rockets															
	Class 1					Class 2					Class 3					Total Annual Cost of Rule
	Model Rockets					High Power Rockets					Advance High Power Rockets					
	Hours(B)	Rate (C)	Cost per Waiver	Annual Number of Waivers	Total Annual Cost of Waivers	Hours	Rate	Cost per Waiver	Annual Number of Waivers	Total Annual Cost of Waivers	Hours	Rate	Cost per Waiver	Annual Number of Waivers	Total Annual Cost of Waivers	Total Annual Cost of Rule
FAA(AST)																
Evaluation (2 people)	5	$ 81	$ 405	0	$0	240	$ 81	$ 19,440	198	$ 3,849,120	480	$ 81	$ 38,880	2	$ 77,760	$ 3,926,880
Risk Analysis (1 person)						45	$ 81	$ 3,645	198	$ 721,710	90	$ 81	$ 7,290	2	$ 14,580	$ 736,290
Team Review/Mgmt Feedback (6 people)						20	$ 81	$ 1,620	198	$ 320,760	40	$ 81	$ 3,240	2	$ 6,480	$ 327,240
Mgmt Approval/ATC Coord (4 people)						10	$ 81	$ 810	198	$ 160,380	20	$ 81	$ 1,620	2	$ 3,240	$ 163,620
Total FAA (AST)	5	$ 81	$ 405	0	$0	315	$ 81	$ 25,515	198	$ 5,051,970	630		$ 51,030	2	$ 102,060	$ 5,154,030
Launch Operator (Applicant)																
Waiver Request	5	$ 81	$ 405	0	$0	10	$ 81	$ 810	198	$ 160,380	10	$ 81	$ 810	2	$ 1,620	$ 162,000
FAA Coordination						20	$ 81	$ 1,620	198	$ 320,760	40	$ 81	$ 3,240	2	$ 6,480	$ 327,240
Data Package Preparation (A)						160	$ 81	$ 12,960	198	$ 2,566,080	1,040	$ 81	$ 84,240	2	$ 168,480	$ 2,734,560
Total Launch Operator (Applicant)	5	$ 81	$ 405	0	$0	190	$ 81	$ 15,390	198	$ 3,047,220	1,090		$ 88,290	2	$ 176,580	$ 3,223,800
Grand Total	10	$ 81	$ 810	0	$0	505	81	$ 40,905	198	$ 8,099,190	1,720		$ 139,320	2	$ 278,640	$ 8,377,830

(A) For Class 3, that is one full time person, one part time, and one person one quarter of the time.

Equation: (40 hours x 4 weeks x 8 months) + (20 hours x 4 weeks x 8 months) + (10 hours x 4 weeks x 8 months) = 2,240

(B) Estimated by AST

(C) From APO Website - The fully allocated cost of an Aerospace Engineer.

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Table C-3			
Incremental Costs of The Final Rule			
Annual Costs:			
Final Rule:		$ 8,377,830	
Existing Rule:		$ 8,885,700	
Incremental Costs of Final Rule:		$ (507,870)	
	Incremental Costs of the Final Rule		
Year	Current $	Present Value $	Discount Factor @ 7%
1	$ (507,870)	$ (474,655)	0.9346
2	$ (507,870)	$ (443,574)	0.8734
3	$ (507,870)	$ (414,574)	0.8163
4	$ (507,870)	$ (387,454)	0.7629
5	$ (507,870)	$ (362,111)	0.7130
6	$ (507,870)	$ (338,394)	0.6663
7	$ (507,870)	$ (316,251)	0.6227
8	$ (507,870)	$ (295,580)	0.5820
9	$ (507,870)	$ (276,230)	0.5439
10	$ (507,870)	$ (258,150)	0.5083
Totals	$ (5,078,700)	$ (3,566,974)	
			08/21/2008

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Regulatory Flexibility Determination

The Regulatory Flexibility Act of 1980 (Pub. L. 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.

The FAA believes that this final rule will not have a significant negative economic impact on a substantial number of small entities. This final rule will affect a large number of small entities. These small entities would include the individuals, organizations, and firms involved in launching amateur rockets. However, although this final rule will affect a large number of small entities, it will not have a negative economic impact because this final rule results in substantial cost savings compared to the existing rule. Therefore, as the Acting FAA Administrator, I certify that this final rule will not have a significant economic impact on a substantial number of small entities.

International Trade Impact Assessment

The Trade Agreements Act of 1979 (Pub. L. 96–39) prohibits Federal agencies from establishing any standards or engaging in related activities that create unnecessary obstacles to the foreign commerce of the United States. Legitimate domestic objectives, such as safety, are not considered unnecessary obstacles. The statute also requires consideration of international standards and, where appropriate, that they be the basis for U.S. standards.

This final rule will not have an impact on international trade because it applies only to launches conducted in the United States. This final rule will help insure that all international treaties with respect to space and amateur rocket launches will be complied with. The FAA has assessed the potential effect of this final rule and has determined that it will have only a domestic impact and therefore no affect on international trade.

Unfunded Mandates Assessment

Title II of the Unfunded Mandates Reform Act of 1995 (Pub. L. 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 (adjusted annually for inflation with the base year 1995) 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 $136.1 million in lieu of $100 million.

This final rule does not contain such a mandate; therefore, the requirements of Title II of the Act do not apply.

Executive Order 13132, Federalism

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

Environmental Analysis

FAA Order 1050.1E 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 312d and involves no extraordinary circumstances.

Regulations That Significantly Affect Energy Supply, Distribution, or Use

The FAA has analyzed this final rule under Executive Order 13211, Actions Concerning Regulations that Significantly Affect Energy Supply, Distribution, or Use (May 18, 2001). We have determined that it is not a ''significant energy action'' under the executive order because it is not a ''significant regulatory action'' under Executive Order 12866, and it is not likely to have a significant adverse effect on the supply, distribution, or use of energy.

Availability of Rulemaking Documents

You can get an electronic copy of rulemaking documents using 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.gpoaccess.gov/fr/index.html*.

You can also get a copy 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) 267–9680. Make sure to identify the amendment number or docket number of this rulemaking.

Anyone is able to search the electronic form of all comments received into any of our dockets by the name of the individual submitting the comment (or signing the comment, if submitted on behalf of an association, business, labor union, etc.). You may review DOT's complete Privacy Act statement in the **Federal Register** published on April 11, 2000 (Volume 65, Number 70; Pages 19477–78) or you may visit *http://DocketsInfo.dot.gov*.

Small Business Regulatory Enforcement Fairness Act

The Small Business Regulatory Enforcement Fairness Act (SBREFA) of 1996 requires FAA to comply with small entity requests for information or advice about compliance with statutes and regulations within its jurisdiction. If you are a small entity and you have a question regarding this document, you may contact your local FAA official, or the person listed under the **FOR FURTHER INFORMATION CONTACT** heading at the beginning of the preamble. You can find out more about SBREFA on the Internet at *http://www.faa.gov/regulations_policies/rulemaking/sbre_act/*.

List of Subjects in 14 CFR Parts 1, 101, 400, 401, and 420

Aircraft, Aviation safety, Life-limited parts, Reporting and recordkeeping requirements.

The Amendment

■ In consideration of the foregoing, the Federal Aviation Administration amends parts 1, 101, 400, 401, and 420 of Title 14, Code of Federal Regulations, as follows:

PART 1—DEFINITIONS AND ABBREVIATIONS

■ 1. The authority citation for part 1 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

■ 2. Add the following definition of *Amateur rocket* in alphabetical order to § 1.1 to read as follows:

§ 1.1 General definitions.

* * * * *

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 statue miles) above the earth's surface.

* * * * *

PART 101—MOORED BALLOONS, KITES, UNMANNED ROCKETS AND UNMANNED FREE BALLOONS

■ 3. The authority citation for part 101 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40103, 40113–40114, 45302, 44502, 44514, 44701–44702, 44721, 46308.

■ 4. Amend § 101.1 by revising paragraph (a)(3) to read as follows:

§ 101.1 Applicability.

(a) * * *

(3) Any unmanned rocket except aerial firework displays.

* * * * *

■ 5. Revise § 101.21 to read as follows:

§ 101.21 Applicability.

(a) This subpart applies to operating unmanned rockets. However, a person operating an unmanned rocket within a restricted area must comply with § 101.25(b)(7)(ii) and with any additional limitations imposed by the using or controlling agency.

(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.

■ 6. Revise § 101.22 to read as follows:

§ 101.22 Definitions.

The following definitions apply to this subpart:

(a) *Class 1—Model Rocket* means an amateur rocket that:

(1) Uses no more than 125 grams (4.4 ounces) of propellant;

(2) Uses a slow-burning propellant;

(3) Is made of paper, wood, or breakable plastic;

(4) Contains no substantial metal parts; and

(5) Weighs no more than 1,500 grams (53 ounces), including the propellant.

(b) *Class 2—High-Power Rocket* means an amateur rocket other than a model rocket that is propelled by a motor or motors having a combined total impulse of 40,960 Newton-seconds (9,208 pound-seconds) or less.

(c) *Class 3—Advanced High-Power Rocket* means an amateur rocket other than a model rocket or high-power rocket.

■ 7. Revise § 101.23 to read as follows:

§ 101.23 General operating limitations.

(a) You must operate an amateur rocket in such a manner that it:

(1) Is launched on a suborbital trajectory;

(2) When launched, must not cross into the territory of a foreign country unless an agreement is in place between the United States and the country of concern;

(3) Is unmanned; and

(4) Does not create a hazard to persons, property, or other aircraft.

(b) The FAA may specify additional operating limitations necessary to ensure that air traffic is not adversely affected, and public safety is not jeopardized.

■ 8. Redesignate § 101.25 as § 101.27 and revise it to read as follows:

§ 101.27 ATC notification for all launches.

No person may operate an unmanned rocket other than a Class 1—Model Rocket unless that person gives the following information to the FAA ATC facility nearest to the place of intended operation no less than 24 hours before and no more than three days before beginning the operation:

(a) The name and address of the operator; except when there are multiple participants at a single event, the name and address of the person so designated as the event launch coordinator, whose duties include coordination of the required launch data estimates and coordinating the launch event;

(b) Date and time the activity will begin;

(c) Radius of the affected area on the ground in statute miles;

(d) Location of the center of the affected area in latitude and longitude coordinates;

(e) Highest affected altitude;

(f) Duration of the activity;

(g) Any other pertinent information requested by the ATC facility.

■ 9. Add new § 101.25 to Subpart C to read as follows:

§ 101.25 Operating limitations for Class 2—High-Power Rockets.

(a) You must comply with the General Operating Limitations of § 101.23.

(b) In addition, you must not operate a Class 2—High-Power Rocket—

(1) At any altitude where clouds or obscuring phenomena of more than five-tenths coverage prevails;

(2) At any altitude where the horizontal visibility is less than five miles;

(3) Into any cloud;

(4) Between sunset and sunrise without prior authorization from the FAA;

(5) Within 8 kilometers (5 statute miles) of any airport boundary without prior authorization from the FAA;

(6) In controlled airspace without prior authorization from the FAA;

(7) Unless you observe the greater of the following separation distances from any person or property that is not associated with the operations applies:

(i) Not less than one-quarter the maximum expected altitude;

(ii) 457 meters (1,500 ft.);

(8) Unless a person at least eighteen years old is present, is charged with ensuring the safety of the operation, and has final approval authority for initiating high-power rocket flight; and

(9) Unless reasonable precautions are provided to report and control a fire caused by rocket activities.

■ 10. Add new § 101.26 to Subpart C to read as follows:

§ 101.26 Operating limitations for Class 3—Advanced High-Power Rockets.

You must comply with:

(a) The General Operating Limitations of § 101.23;

(b) The operating limitations contained in § 101.25;

(c) Any other operating limitations for Class 3—Advanced High-Power Rockets prescribed by the FAA that are necessary to ensure that air traffic is not adversely affected, and public safety is not jeopardized.

■ 11. Add § 101.29 to Subpart D to read as follows:

§ 101.29 Information requirements.

(a) *Class 2—High-Power Rockets.* When a Class 2—High-Power Rocket requires a certificate of waiver or authorization, the person planning the operation must provide the information below on each type of rocket to the FAA at least 45 days before the proposed operation. The FAA may request

additional information if necessary to ensure the proposed operations can be safely conducted. The information shall include for each type of Class 2 rocket expected to be flown:

(1) Estimated number of rockets,

(2) Type of propulsion (liquid or solid), fuel(s) and oxidizer(s),

(3) Description of the launcher(s) planned to be used, including any airborne platform(s),

(4) Description of recovery system,

(5) Highest altitude, above ground level, expected to be reached,

(6) Launch site latitude, longitude, and elevation, and

(7) Any additional safety procedures that will be followed.

(b) *Class 3—Advanced High-Power Rockets.* When a Class 3—Advanced High-Power Rocket requires a certificate of waiver or authorization the person planning the operation must provide the information below for each type of rocket to the FAA at least 45 days before the proposed operation. The FAA may request additional information if necessary to ensure the proposed operations can be safely conducted. The information shall include for each type of Class 3 rocket expected to be flown:

(1) The information requirements of paragraph (a) of this section,

(2) Maximum possible range,

(3) The dynamic stability characteristics for the entire flight profile,

(4) A description of all major rocket systems, including structural, pneumatic, propellant, propulsion, ignition, electrical, avionics, recovery, wind-weighting, flight control, and tracking,

(5) A description of other support equipment necessary for a safe operation,

(6) The planned flight profile and sequence of events,

(7) All nominal impact areas, including those for any spent motors and other discarded hardware, within three standard deviations of the mean impact point,

(8) Launch commit criteria,

(9) Countdown procedures, and

(10) Mishap procedures.

PART 400—BASIS AND SCOPE

■ 12. The authority citation for part 400 continues to read as follows:

Authority: 49 U.S.C. 70101–70121.

■ 13. Revise § 400.2 to read as follows:

§ 400.2 Scope.

These regulations set forth the procedures and requirements applicable to the authorization and supervision under 49 U.S.C. Subtitle IX, chapter 701, of commercial space transportation activities conducted in the United States or by a U.S. citizen. The regulations in this chapter do not apply to amateur rockets activities, as defined in 14 CFR 1.1, or to space activities carried out by the United States Government on behalf of the United States Government.

PART 401—ORGANIZATION AND DEFINITIONS

■ 14. The authority citation for part 401 continues to read as follows:

Authority: 49 U.S.C. 70101–70121.

§ 401.5 [Amended]

■ 15. Amend § 401.5 by removing the definition of *Amateur rocket activities.*

PART 420—LICENSE TO OPERATE A LAUNCH SITE

■ 16. The authority citation for part 420 continues to read as follows:

Authority: 49 U.S.C. 70101–70121.

■ 17. Revise § 420.3 to read as follows:

§ 420.3 Applicability.

This part 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.

Issued in Washington, DC, on November 24, 2008.

Robert A. Sturgell,

Acting Administrator.

[FR Doc. E8–28703 Filed 12–3–08; 8:45 am]

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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA–2008–0589; Directorate Identifier 2008–NE–17–AD; Amendment 39–15757; AD 2008–24–13]

RIN 2120–AA64

Airworthiness Directives; Pratt & Whitney PW4000 Series 94-Inch Fan Turbofan Engines

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

ACTION: Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for Pratt & Whitney (P&W) PW4052, PW4056, PW4060, PW4062, PW4152, PW4156A, PW4158, PW4460, and PW4462 turbofan engines. This AD requires a onetime visual inspection of all EEC–131 model electronic engine controls (EECs). This AD also requires the EECs to be identified, categorized by group number, marked, and replaced using a fleet management plan. This AD results from a report of an uncommanded engine in-flight shutdown due to defective EEC pulse width modulator (PWM) microcircuits. We are issuing this AD to prevent uncommanded in-flight engine shutdowns which could result in loss of thrust and prevent continued safe flight or landing.

DATES: This AD becomes effective January 8, 2009. The Director of the Federal Register approved the incorporation by reference of certain publications listed in the regulations as of January 8, 2009.

ADDRESSES: You can get the service information identified in this AD from Pratt & Whitney, 400 Main St., East Hartford, CT 06108; telephone (860) 565–8770; fax (860) 565–4503.

The Docket Operations office is located at Docket Management Facility, U.S. Department of Transportation, 1200 New Jersey Avenue, SE., West Building Ground Floor, Room W12–140, Washington, DC 20590–0001.

FOR FURTHER INFORMATION CONTACT: Kevin Dickert, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; e-mail: *kevin.dickert@faa.gov*; telephone (781) 238–7117; fax (781) 238–7199.

SUPPLEMENTARY INFORMATION: The FAA proposed to amend 14 CFR part 39 with a proposed AD. The proposed AD applies to P&W PW4052, PW4056, PW4060, PW4062, PW4152, PW4156A, PW4158, PW4460, and PW4462 turbofan engines. We published the proposed AD in the **Federal Register** on August 14, 2008 (73 FR 47561). That action proposed to require a onetime visual inspection of all EEC–131 model EECs. That action also proposed to require the EECs to be identified, categorized by group number, marked, and replaced using a fleet management plan.

Examining the AD Docket

You may examine the AD docket on the Internet at *http://www.regulations.gov*; or in person at the Docket Operations office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the regulatory evaluation, any comments received, and other information. The street address for