

**Supporting Statement
For Renewal with No Changes of Information Collection
Experimental Permits for Reusable Suborbital Rockets
2120-0722**

1. Explain the circumstances that make the collection of information necessary. Identify any legal or administrative requirements that necessitate the collection.

The FAA collects information from applicants for experimental permits in order to determine whether they satisfy the requirements for obtaining an experimental permit under 14 CFR part 437. Pre-flight information is required once a permit is issued. The requirements are designed to achieve public safety while reducing the regulatory burden on developers of reusable suborbital rockets.

The regulations mandating or authorizing the collection of information are as follows:

Section 437.21, General, requires an applicant to provide information for the FAA to analyze environmental impacts and information for the FAA to conduct a maximum probable loss analysis. The applicant is required to provide a program description, a flight test plan and operational safety documentation which are included with the other sections of part 437 discussed below.

Section 437.25, Flight test plan, requires that the applicant provide the FAA a general description of the applicant's flight test program, including an estimate of the number of flights, key flight-safety events, and maximum altitude. The applicant is required to identify and describe the geographic boundaries of one or more proposed operating areas where it plans to perform its flights.

Sections 437.27, Pre-flight and post-flight operations, requires that an applicant demonstrate to the FAA how it will establish a safety clear zone and verify that the public is outside that zone before and during any hazardous operation, in accordance with § 437.53.

Sections 437.29, Hazard analysis, requires that an applicant perform a hazard analysis that complies with § 437.55(a) and provide to the FAA all the results of each step of the hazard analysis.

Section 437.31, Verification of operating area containment and key flight-safety event limitations, requires that an applicant identify, describe, and provide the FAA verification evidence of the methods and systems used to meet the requirements of § 437.57(a) and § 437.59.

Section 437.37, requires an applicant to identify and describe how it will measure in real time the position and velocity of its vehicle, and provide

position and velocity data to the FAA for post-flight use, in accordance with § 437.67.

Section 437.41, Mishap Response Plan, requires an applicant for a permit to provide a mishap response plan addressing how an applicant will respond to a mishap, in accordance with § 437.75(b).

Section 437.69, Communications, requires a permittee to be in communication with Air Traffic Control during all phases of flight and to record communications affecting the safety of the flight.

Section 437.87, Records, requires a permittee to keep records that demonstrate the permittee performed in accordance with its permit for 3 years. In the event of a mishap, the permittee must keep the records until the FAA informs them they are no longer needed.

Section 437.89, Pre-flight reporting, requires a permittee to provide the FAA with certain information before each flight or series of flights. The permittee will be required to provide information on: payload and payload operations, when the flight or series of flights are planned, the operating area for each flight, the planned maximum altitude for each flight and a planned trajectory for a collision avoidance trajectory.

The collection of information supports the Department of Transportation's Safety strategic objective.

2. Indicate how, by whom, and for what purpose the information is to be used. Except for a new collection, indicate the actual use the agency has made of the information received from the current collection.

All persons wishing to launch reusable suborbital rockets are subject to this information collection. The information to be collected includes data required for performing a safety review, which includes a technical assessment to determine if the applicant can launch a reusable suborbital rocket without jeopardizing public health and safety and the safety of property. This information collection requirement is for reporting information needed to obtain a permit and for record keeping and is intended for incorporating acquired data into the experimental permit, which then becomes binding on the launch or reentry operator. The applicant is required to submit information as part of a permit application that enables FAA to determine, before issuing a permit, if issuance of the experimental permit would jeopardize the foreign policy or national security interests of the U.S.

Environmental information is required for the FAA to comply with the requirements of the National Environmental Policies Act.

- 3. Describe whether, and to what extent, the collection of information involves the use of automated, electronic, mechanical, or other technological collection techniques or other forms of information technology.**

100% of the information can be provided in an electronic format. The FAA now allows the letter to certify that an application is accurate, true, and complete to be submitted electronically

- 4. Describe efforts to identify duplication. Show specifically why any similar information already available cannot be used or modified for use for the purpose(s) described in Item 2 above.**

Due to the proprietary nature of the information collected, it is not publicly available and the FAA is the only agency that collects this type of information. The agency is not aware of other government agencies that collect such information pertaining to the launches of a commercial reusable suborbital rockets. Documents produced for a different agency or purpose that meet FAA requirements do not have to be reformatted specifically for the FAA. Also, an applicant who has submitted information in earlier applications does not need to resubmit the same data, but may reference it.

- 5. If the collection of information involves small businesses or other small entities, describe the methods used to minimize burden.**

Pursuant to the Regulatory Flexibility Act of 1980 (RFA), FAA/AST certifies that this collection does not have a significant economic impact on a substantial number of small entities. Regulations are written to allow flexibility and innovation.

- 6. Describe the consequence to Federal program or policy activities if the collection is not conducted or is conducted less frequently, as well as any technical or legal obstacles to reducing burden.**

If the collection of information, which involves reporting, recordkeeping, and disclosures, is not conducted, the FAA may not be able to make a permit determination. The frequency of collecting the information is contingent upon the number of permit applications and missions.

- 7. Explain any special circumstances that require the collection to be conducted in a manner inconsistent with the general information collection guidelines in 5 CFR 1320.5(d)(2).**

This requirement follows the guideline of 5 CFR 1320.5(d)(2).

8. Describe efforts to consult persons outside the agency to obtain their views on the availability of data, frequency of collection, the clarity of instructions and recordkeeping, disclosure, or reporting format (if any), and on the data elements to be recorded, disclosed, or reported. If applicable, provide a copy and identify the date and page number of publication in the Federal Register of the agency's notice, required by 5 CFR 1320.8(d) soliciting comments on the information collection prior to submission to OMB. Summarize public comments received in response to that notice and describe actions taken by the agency in response to these comments. Specifically address comments received on cost and hour burden.

A 60 day notice for public comment was published on 04/08/2020 with citation number 85 FR 19792, on page 19793 in preparation for this new submission to OMB. No comments were received.

9. Explain any decision to provide any payment or gift to respondents, other than remuneration of contractors or grantees.

No decision was made to provide any payment or gift to respondents.

10. Describe any assurance of confidentiality provided to respondents and the basis for the assurance in statute, regulation, or agency policy.

Information collected, including company proprietary information, will be protected in accordance with the Freedom of Information Act and 49 U.S.C. §70114. Furthermore, in accordance with 14 CFR § 413.9, any person furnishing information or data to the FAA may request in writing that trade secrets or proprietary commercial or financial data be treated as confidential. The request must be made at the time the information or data is submitted, and state the period of time for which confidential treatment is desired.

11. Provide additional justification for any questions of sensitive nature, such as sexual behavior and attitudes, religious beliefs, and other matters that are commonly considered private.

The FAA does not collect any sensitive information under 14 CFR part 437.

12. Provide estimates of hour burden of the collection of information.

Presented below are estimates of cost for each section that results in burden costs. The FAA estimates that the industry loaded hourly cost based on Bureau of Labor statistics for an Aerospace Engineer is \$82.12¹ Based on data

¹ Labor rate is based on Bureau of Labor statistics hourly rate of \$57.32 for an Aerospace Engineer in the Occupational Employment and Wages, May 2019 (<https://www.bls.gov/oes/current/oes172011.htm>) and an hourly benefit rate of \$24.80 for

from the last 10 years, the FAA expects that over the next 3 years it will issue 3 experimental permits and renew one experimental permit. Industry would perform 9 flights under the experimental permits in the next three years.

The total estimated annual number of responses is 4.33 per year.

Section 413.23 Permit Issuance or Permit Renewal

An operator seeking a permit or a permittee renewing its permit has to submit a written application to the FAA which describes proposed changes in its permitted activities and provide additional information required by the FAA. Each application requires an estimated 223 hours to collect and provide the information to the FAA. The average estimated permits per year is 1 and the average estimated renewals per year is .333.

Annual Hour Burden – $(1.333 \times 223) = 297$

Annual Cost Burden – $\$82.12 \times 297 = \$24,410$

Section 437.21 General

The applicant is required to provide information for the FAA to analyze environmental impacts and information for the FAA to conduct a maximum probable loss analysis. We estimate that for **each initial permit** an applicant would require **500 hours** to collect and provide the FAA with information for the environmental analysis. A permit applicant also spends an estimated **40 hours** to collect and provide the FAA with information for the **maximum probable loss analysis**. These hours are in addition to hours spent preparing the initial application and the renewal application. The paperwork estimated hours and costs for the applicant to provide a program description, a flight test plan and operational safety documentation are included with the other 437 sections discussed below.

The FAA estimates the applicant needs an estimated 500 person-hours to collect and provide information for the environmental analysis and an estimated 40 hours to collect and provide information for the maximum probable loss analysis for each permit. A renewal does not require submitting information for environmental analysis or maximum probable loss because it does not change from the information submitted with the original application.

Annual Hour Burden – $(1 \times (500 + 40)) = 540$

Annual Cost Burden – $\$82.12 \times 540 = \$44,345$

a professional and related percentage of total compensation of 30.2% in table 4 of the Employer Costs for Employee compensation for private industry workers by occupation and industry (<https://www.bls.gov/news.release/pdf/ecec.pdf>).

Section 437.37 Tracking and Section 437.67 Tracking

§ 437.37 and § 437.67 require that a permittee measure in real time the position and velocity of its reusable suborbital rocket and that an applicant identify and describe the methods it would use to meet the tracking requirement. We estimate that an applicant would require 96 hours to prepare a description of the tracking methods and to install the associated equipment. Of the 96 hours, 9.6 hours would be required to prepare the description of the tracking methods and would be considered a paperwork cost. Permit renewals do not require an applicant to submit the method for tracking if it does not change from the original permit application. The tracking method is unlikely to change and can be modified at any time, not just during a renewal.

The FAA estimates 9.6 person-hours to prepare a description of the tracking methods for each permit.

Annual Hour Burden - $(1 \times 9.6) = 9.6$

The estimated average annual cost for companies to prepare a description of the tracking methods is:

Annual Cost Burden - $\$82.12 \times 9.6 = \788

Section 437.25, Flight test plan, Section 437.27, Pre-flight and post-flight operations, Section 437.29, Hazard analysis, Section 437.31, Verification of operating area containment and key flight-safety event limitations, Section 437.53, Pre-flight and post-flight operations, Hazard analysis, Section 437.57, Operating area containment, and Section 437.59, Key flight-safety event limitations

Collectively, these sections require a private entity performing launch and reentry under an experimental permit to demonstrate that its operations would protect public safety. The FAA estimates that a permit holder will devote 1,560 hours to fulfilling these requirements, all of which would be considered paperwork.

The FAA estimates 1,560 for each permit to provide the required documentation and analyses. The documentation and analysis does not have to be submitted for a renewal because the original permit application submission can be used for the renewal.

Annual Hour Burden – $1 \times 1,560 = 1,560$

Annual Cost Burden - $\$82.12 \times 1,560 = \$128,107$

Section 437.41 Mishap Response Plan

Section 437.41 requires an applicant for a permit to provide a mishap response plan addressing response to a mishap. The FAA estimates that a permit holder devotes **120 hours** to fulfilling these requirements, all of which would be considered paperwork. Unless lessons learned dictated otherwise, a permittee will likely use the same Mishap Response Plan when applying for a renewal.

The FAA estimates 120 hours for each permit to provide the mishap response plan.

Annual Hour Burden – $1 \times 120 = 120$

Annual Cost Burden - $\$82.12 \times 120 = \$9,854$

Section 437.69 Communications

Section 437.69 requires a permittee to be in communication with Air Traffic Control during all phases of flight and to record communications affecting the safety of the flight. While this requires a response from the operator, it would be a passive response because it would simply involve turning on a recorder. Therefore, we do not expect this requirement to add to the annual hourly or cost burden. We expect there would be 9 responses over the next three years.

Section 437.89 Pre-flight reporting

Section 437.89 requires the permittee to provide the FAA with certain information before each flight or series of flights. The permittee is required to provide information on: payload and payload operations, when the flight or series of flights are planned, the operating area for each flight, the planned maximum altitude for each flight and a planned trajectory for a collision avoidance trajectory. The permittee is also expected to maintain for 3 years all records data, and other material necessary to verify that a permittee conducted its launch or reentry in accordance with its permit.

The FAA estimates that the permittee requires at most 2 hours to provide and maintain this information for each flight. We expect there would be 9 responses over the next three years.

Annual Hour Burden – $3 \times 2 = 6$

Annual Cost Burden - $\$82.12 \times 6 = \493

Summary of Industry Paperwork Costs

Rule Section	Annual Paperwork Hours Per New Permit	Annual Paperwork Hours Per Renewal	Annual Hourly Burden	Annual Cost Burden
§ 413.23 License or Permit Renewal	223	74.3	297.3	\$24,414
§ 437.21 General (b)(1) Environmental (b)(2) Financial Responsibility Total	500 40 540	0 0 0	540	\$44,345
§ 437.37 Tracking § 437.67 Tracking	9.6	0	9.6	\$788
§ 437.25 Flight Test Plan § 437.27 Pre-flight and Post-flight Operations § 437.29 Hazard Analysis § 437.31 Verification of operating area containment and key flight-safety event limitations § 437.53 Pre-flight and Post-flight Operations § 437.55 Hazard Analysis § 437.57 Operating Area Containment § 437.59 Key Flight-Safety Event Limitations	1,560	0	1,560	\$128,107
§ 437.41 Mishap Response Plan	120	0	120	\$9,854
437.89 Pre-flight reporting	2	0	6	\$493
Total Paperwork Costs			2,532.9	\$208,001

The total estimated annual paperwork burden is 2,532.9 hours, as indicated in the preceding table. **The annual cost burden is \$208,001.**

Overall Burden Summary:

Annual Responses	Annual Burden Hours
1.33	2,533

This burden is lower than the currently active collection because the number of permits, renewals, and permitted flights is lower than the estimated number in the currently active collection. The numbers have been adjusted to reflect permit data from the past 10 years.

13. Provide an estimate of the total annual cost burden to respondents or record-keepers resulting from the collection of information.

Total estimated paperwork cost of the regulation is presented in item #12 above. Permittees would also likely incur costs to equip their vehicles with a means to measure in real time the position and velocity of its reusable suborbital rocket. The FAA estimates that it would cost each permittee \$2,000 to equip its vehicle. The FAA assumes that each permit holder would have one vehicle.

Annual Cost to Equip Vehicle = 1 x \$2,000 = \$2,000

14. Provide estimates of annualized cost to the Federal Government. Also, provide a description of the method used to estimate cost, and other expenses that would not have been incurred without this collection of information.

Presented below are estimates of person-hours that the FAA incurs per permit. The FAA assumes that government personnel working in the Washington D.C. area at a GS 13 level step 5 perform the work. The loaded hourly wage rate is \$52.36². The FAA Reviewed permit data over the past 10 years and expects that there will be 3 permits issued, 1 permit renewed, and 9 permitted flights over the next three years.

Section 413.23 permit renewal

Section 413.23 (b)(1) A permit or permit renewal application shall satisfy the requirements set forth in this part and any other applicable part of this

² Based on Bureau of Labor Statistics Employer Costs for Employee Compensation by ownership Table 1 June 2020 (<https://www.bls.gov/news.release/pdf/ecec.pdf>) for government employees.

chapter.

The FAA estimates that it would expend 120 person hours if it had to re-inspect a vehicle for a permit renewal under section 413.23. The FAA estimates that it would expend as many as 72 person-hours [calculated as 3 personnel × (8 hours onsite + 16 hours travel) = 72 person-hours] performing an inspection of a reusable suborbital rocket. Further, we estimate that the FAA would expend an additional 48 person-hours assessing this information in relation to the initial permit representations and subsequently issuing an experimental permit renewal. The FAA estimates it would also incur travel expenses of \$3,316 per inspection. We assume each permittee has one vehicle and that each vehicle has to be re-inspected when the permit is renewed.

Annual Hour Burden - $.333 \times 120 = 40$

Annual Cost Burden - $\$52.36 \times 40 = \$2,094$

Annual Cost Burden due to travel – $\$3,316 \times .333 = \$1,105$

Total Annual Cost Burden including travel and hours = $\$3,199$

Section 413.23 (c) Review of application

The FAA estimates that it would need 624 hours to conduct the reviews required to determine whether the applicant's permit may be renewed for an additional term.

Annual Hour Burden - $.333 \times 624 = 208$

Annual Cost Burden - $\$52.36 \times 208 = \$10,891$

Subpart B

The FAA estimates it would spend about 6,240 hours per permit consulting with a permit applicant and reviewing and approving applications for permits under the regulation.

Annual Hour Burden – $1 \times 6,240 = 6,240$

Annual Cost Burden - $\$52.36 \times 6,240 = \$326,726$

Section 437.21 General

To administer section 437.21, the FAA estimates that it would expend as many as 72 person-hours [calculated as 3 personnel × (8 hours onsite + 16 hours travel) = 72 person-hours] per initial permit performing an inspection of a suborbital rocket as part of the permit application process, in accordance with proposed § 437.21.

Annual Hour Burden – 3 x 72 = 216

The estimated average annual cost for the FAA to inspect the vehicle is:

Annual Cost Burden due to hours-\$52.36 x 216 = \$11,310
 Annual Cost Burden due to travel – \$3,316 x 3 = \$9,948
 Total Annual Cost Burden including travel and hours = \$21,258

Section 437.85 Allowable design changes; Modification of an experimental permit

Under § 437.85, the FAA is responsible for identifying at the time of issuance, the types of changes that may be made to the reusable suborbital rocket without invalidating the permit. The FAA estimates that it would expend as many as 120 person-hours per permit to identify at the time of permit issuance, the types of changes that may be made to the reusable suborbital rocket without invalidating the permit.

Annual Hour Burden – 1 x 120 = 120

Annual Cost Burden - \$52.36 x 120 = \$6,283

Summary of FAA Paperwork Costs

Rule Section	Paperwork Hours Per New Permit	Paperwork Hours Per New Permit Renewal	Annual Hourly Burden	Annual Cost Burden
Subpart B	6,240	0	6,240	\$326,726
§ 413.23 Permit or permit renewal				
(b) Application	0	120	40	\$2,094
(c) Review of application	0	624	208	\$10,891

§ 437.21 General	72	0	216	\$11,310
§ 437.85 Allowable design changes; Modification of an experimental permit	120	0	120	\$6,283
Travel Costs	0	1,105	9,948	\$11,053
Total	6,432		6,824	\$368,357

15. Explain the reasons for any program changes or adjustments

The hourly burden was adjusted to reflect permit data from the last ten years. Averages over the last ten years were used to estimate hourly burden for the next three years. This burden is lower than the currently active collection because the number of permits, renewals, and permitted flights is lower than the estimated number in the currently active collection. The numbers have been adjusted to reflect permit data from the past 10 years.

16. For collections of information whose results will be published, outline plans for tabulation and publication. Address any complex analytical techniques that will be used. Provide the time schedule for the entire project, including beginning and ending dates of the collection of information, completion of report, publication dates, and other actions.

The FAA does not intend to publish this information.

17. If seeking approval to not display the expiration date for OMB approval of the information collection, explain the reasons that display would be inappropriate.

The FAA is not seeking an approval to not display the expiration date.

18. Explain each exception to the certification statement identified “Certification for Paperwork Reduction Act Submissions.”

There are no exceptions.

