

## Supporting Statement

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

We are requesting approval for the same burden as was previously approved. There were no permits or permitted operations in the last three years. However, AST anticipates that permit applications in the next three years may return to the 10-year average used in the previous collection.

#### **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 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.**

An experimental permit is an authorization issued by the FAA to allow an experimental reusable suborbital rocket to launch or reenter. A permit is an alternative to licensing. A permit is valid for a one-year renewable term and allows a permittee to conduct an unlimited number of launches and reentries for a particular suborbital rocket design during that time. The FAA will issue experimental permits only for: (1) Research and development to test new reusable suborbital rocket design concepts, new equipment, or new operating techniques; (2) Showing compliance with requirements to obtain a license; or (3) Crew training before obtaining a license.

All persons wishing to launch reusable suborbital rockets are subject to this information collection. While the FAA does not have a form or specific modality for submitting this information collection, the CFR requires a variety of analyses, including a hazard analysis, detailed operating requirements, and a maximum probable loss estimation. Potential respondents can learn more about submission requirements by going to the FAA's website. Information about the experimental permits for reusable suborbital rockets is currently located here:

[https://www.faa.gov/about/office\\_org/headquarters\\_offices/ast/licenses\\_permits/sub\\_orbital\\_rockets/](https://www.faa.gov/about/office_org/headquarters_offices/ast/licenses_permits/sub_orbital_rockets/). Respondents submit the information collection to the Office of Commercial Space Transportation in accordance with 14 CFR part 413.

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. The applicant is also 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 via email, share site, or media such as CDs or thumb drives. 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 purposes 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 would cause an information collection to be conducted in a manner:**

- *requiring respondents to report information to the agency more often than quarterly;*
- *requiring respondents to prepare a written response to a collection of information in fewer than 30 days after receipt of it;*
- *requiring respondents to submit more than an original and two copies of any document; requiring respondents to retain records, other than health, medical, government contract, grant-in-aid, or tax records, for more than three years;*
- *in connection with a statistical survey, that is not designed to produce valid and reliable results that can be generalized to the universe of study;*
- *requiring the use of a statistical data classification that has not been reviewed and approved by OMB;*

- *that includes a pledge of confidentiality that is not supported by authority established in statute or regulation, that is not supported by disclosure and data security policies that are consistent with the pledge, or which unnecessarily impedes sharing of data with other agencies for compatible confidential use; or*
- *requiring respondents to submit proprietary trade secrets, or other confidential information unless the agency can demonstrate that it has instituted procedures to protect the information's confidentiality to the extent permitted by law.*

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

**8. Provide information on the PRA Federal Register Notice that solicited public comments on the information collection prior to this submission. Summarize the public comments received in response to that notice and describe the actions taken by the agency in response to those comments. Describe the efforts to consult with 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.**

A 60-day notice for public comment was published on 04/17/2023 with citation number 88 FR 23491 in preparation for this renewal to OMB. No comments were received.

**9. Explain any decisions to provide payments or gifts 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 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

for proprietary information must be made at the time the information or data is submitted. An applicant must state the period of time for which confidential treatment of the proprietary information is desired.

**11. Provide additional justification for any questions of a 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 the hour burden of the collection of information. The statement should:**

Presented below are estimates of cost for each section that results in burden costs. The FAA estimates that the industry hourly rate (\$61.10)<sup>1</sup> is the mean hourly wage for aerospace engineering personnel involved in gathering, reviewing, and formatting the information required in each license application based on the Bureau of Labor statistics. The industry hourly rate is based on aerospace engineering personnel only; it does not include rates for executive or managerial personnel. We multiplied the hourly wage rate by a fringe benefit rate of 30.03 percent.<sup>2</sup> Resulting in a fully loaded rate of \$79.45.

Based on data from the last 13 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 1 per year.

**Section 413.23 Permit Issuance or Permit Renewal**

An operator seeking a permit or a permittee renewing its permit must 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.

Annual Hour Burden – (1 x 223) = 223

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<sup>1</sup> U.S. Bureau of Labor Statistics, Aerospace Engineers, \$ mean hourly wage rate, <https://www.bls.gov/oes/current/oes172011.htm>

<sup>2</sup> Source: Professional and related percentage of total compensation of 30.03% 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>).

Annual Cost Burden –  $\$79.45 \times 233 = \$18,512$

### **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 114 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 114 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 –  $(1 \times (500 + 114)) = 614$

Annual Cost Burden –  $\$79.45 \times 614 = \$48,782$

### **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:

$$\text{Annual Cost Burden} - \$79.45 \times 9.6 = \$763$$

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 do not have to be submitted for a renewal because the original permit application submission can be used for the renewal.

$$\text{Annual Hour Burden} - 1 \times 1,560 = 1,560$$

$$\text{Annual Cost Burden} - \$79.45 \times 1,560 = \$123,942$$

### **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.

$$\text{Annual Hour Burden} - 1 \times 120 = 120$$

$$\text{Annual Cost Burden} - \$79.45 \times 120 = \$9,534$$

### **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 materials 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 -  $\$79.45 \times 6 = \$477$

**Overall Burden Summary:**

<b>Annual Responses</b>	<b>Annual Burden Hours</b>
1	2,533

This burden is the same as the currently active collection because there were no permits issued in the last three years, but AST anticipates that permit applications in the next three years may return to the 10-year average used in the previous collection.

Summary (Annual numbers)	Reporting	Recordkeeping	Disclosure
# of Respondents	1		
# of Responses per respondent	1		
Time per Response	2,533		
Total # of responses	1		
Total burden (hours)	2,533		

**13. Provide an estimate for 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 costs to the Federal government. Also, provide a description of the method used to estimate cost, which should include quantification of hours, operational expenses (such as equipment, overhead, printing, and support staff), and any other expense 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.<sup>3</sup> The cost for the government employee is based on the government hourly rate (\$60.83) is multiplied by 1.381 to account for a fringe benefits rate of 38.1 percent, resulting in a fully loaded hour rate of \$84.00.

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<sup>3</sup> SALARY TABLE 2023-DCB FOR THE LOCALITY PAY AREA OF WASHINGTON-BALTIMORE-ARLINGTON, DC-MD-VA-WV-PA

Source: OPM, [https://www.opm.gov/policy-data-oversight/pay-leave/salaries-wages/salary-tables/23Tables/html/DCB\\_h.aspx](https://www.opm.gov/policy-data-oversight/pay-leave/salaries-wages/salary-tables/23Tables/html/DCB_h.aspx)

### **Section 413.23 permit renewal**

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 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 must be re-inspected when the permit is renewed.

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

Annual Cost Burden -  $\$84.00 \times 40 = \$3,360$

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

Total Annual Cost Burden including travel and hours =  $\$4,465$

### **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 -  $\$84.00 \times 208 = \$17,472$

### **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 -  $\$84,00 \times 6,240 = \$524,160$

### **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  $\times$  (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 –  $3 \times 72 = 216$

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

Annual Cost Burden due to hours-	$\$84.00 \times 216$	= \$18,144
Annual Cost Burden due to travel –	$\$3,316 \times 3$	= \$9,948
Total Annual Cost Burden including travel and hours		= \$28,092

### **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 –  $1 \times 120 = 120$

Annual Cost Burden -  $\$84.00 \times 120 = \$10,080$

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	\$524,160
§ 413.23 Permit or permit renewal				
(b) Application	0	120	40	\$3,360
(c) Review of application	0	624	208	\$17,472
§ 437.21 General	72	0	216	\$18,144
§ 437.85 Allowable design changes; Modification of an experimental permit				
	120	0	120	\$10,080
Travel Costs	0	1,105	9,948	\$11,053
<b>Total</b>	<b>6,432</b>		<b>6,824</b>	<b>\$584,269</b>

**15. Explain the reasons for any program changes or adjustments.**

There's no change in burden hours. Cost burden has been adjusted to reflect higher labor costs.

**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 why display would be inappropriate.**

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

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

There are no exceptions.