

**Supporting Statement A**  
**Financial Responsibility for Licensed Launch Activities**

**14 CFR Part 440**

**OMB Control Number 2120-0601**

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

The Commercial Space Launch Act of 1984 as amended and recodified at 51 U.S.C. Subtitle V, § 50914 provides that when a launch or reentry license is issued or transferred, the licensee or transferee must obtain liability insurance or demonstrate financial responsibility in amounts to compensate for the maximum probable loss (MPL) from claims by a third party and by the United States Government. Further, 51 U.S.C. Subtitle V, § 50906, paragraph (h)(i) states that for purposes of § 50914 (and other specified sections), a permit shall be considered a license. Therefore, the information collection described herein applies to launch activities related to a license and to an experimental permit.

Title 14 CFR Part 440 establishes financial responsibility requirements as a condition of every launch license or experimental permit issued by FAA/AST. Specifically, the applicant (i.e., the person that applies for a license or experimental permit), in supporting FAA/AST's determination of MPL, must submit information on mission description, pre-flight processing operations, flight operations, and post-flight processing operations. A licensee or permittee must submit evidence of financial responsibility and compliance with allocation of risk requirements. This evidence includes a reciprocal waiver of claims agreement, evidence of insurance and financial responsibility in a form other than insurance, and proof of insurance —i.e., liability insurance to pay claims of third parties for bodily injury and property damage resulting from licensed or permitted launch activities. This ensures a more streamlined submission of required material and result in a more efficient application evaluation process.

As provided in 14 CFR § 440.5, no person may commence or conduct any launch or reentry activity that requires a license or permit unless that person has demonstrated compliance with the financial responsibility and allocation of risk requirements in part 440. The information collection described in this statement is necessary to support compliance with part 440 requirements.

**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.**

This information collection mandate reported by those commercial space launch services providers seeking a license or permit, enables FAA/AST to determine the MPL resulting from licensed or permitted launch activities. The information is collected once based on

vehicle configuration, launch site, and flight trajectory that are introduced in the license or permit application. The collected information will be used to determine if licensees have complied with financial responsibility requirements for MPL analysis as set forth in FAA regulations (§ 440.7(c)). The FAA is responsible for determining MPL required to covered claims by a third party for bodily injury or property damage, and the United States, its agencies, and its contractors and subcontractors for covered property damage or loss, resulting from a Commercial space transportation permitted or licensed activity. The MPL determination forms the basis for financial responsibility requirements issued in a license or permit order. The licensee or permittee provides the MPL results to an insurance broker to purchase insurance for the license or permit mission.

The following is a summary of the key information required to conduct an MPL:

1. Mission description.

- Launch trajectory;
- Orbital inclination; and
- Orbit altitudes (apogee and perigee).

2. Flight sequence.

3. Staging events and the time for each event.

4. Impact locations.

5. Identification of the launch site facility, including the launch complex on the site, planned date of launch, and launch windows.

6. Launch vehicle description.

- General description of the launch vehicle and its stages, including dimensions.
- Description of major systems, including safety systems.
- Description of rocket motors and type of fuel used.
- Identification of all propellants to be used and their hazard classification under the Hazardous Materials

7. Payload

8. Flight safety system

**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.**

The office has implemented the following for improved information technology enhancements:

In accordance with the government Paperwork Reduction Act, a website is maintained to improve the ability of the public to access information pertaining to the collection of information.

FAA/AST has established a means for 100% electronic submission of permit and license applications. The electronic submission of applications has facilitated receiving an increasing number of applications and related information.

Since some information is proprietary, some applicants may prefer to submit through secure mail or courier.

**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.**

By preempting conflicting or inconsistent requirements in U.S. Government agreements entered into by the applicant, the financial responsibility and allocated risk requirements are designed to avoid imposing duplicative and inconsistent obligations on the applicant. Collected information needed to satisfy these requirements is unique. There are no other government agencies required to collect information to determine the financial responsibility for licensed and permitted launches.

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

The part 440 regulations referenced herein were written to allow flexibility and innovation on the part of the private sector. Pursuant to the Regulatory Flexibility Act of 1980 (RFA), FAA/AST certifies that these regulations do not have a significant economic impact on a substantial number of small entities.

**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.**

The quantitative process used to determine MPL values took many years to develop. It is a process based quantitative method with significantly less subjective results as compared to a prior MPL analysis used several years ago. It applies a common approach for the diverse launch missions implemented by today's commercial space transportation that produces results that are more accurate. For example, missions to supply the International Space Station (ISS), telecommunication missions, other orbital mission, suborbital missions, and reusable launch vehicle missions just to name a few. If there is no collection of information, MPL well not be accomplished with consistency and improved accuracy.

The frequency of recordkeeping or reporting is contingent upon how often applications are submitted requesting a license to conduct launch or reentry missions, or experimental permit missions. Each of these missions require MPL analysis to establish the appropriate insurance. If the frequency to conduct the MPL for these missions is reduced or significantly

delayed, no mission can occur because insurance for the mission cannot be obtained. Therefore, the consequence of conducting MPL less frequently could produce a financial burden on the commercial space transportation industry and could potential impact how that industry supplies the ISS.

**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.*

There are no special circumstances.

**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 Federal Register Notice published on June 28, 2018 (83 FR 30475) solicited public comment. No comments were received.

**9. Explain any decisions to provide payments or gifts to respondents, other than remuneration of contractors or grantees.**

No payments or special compensation will be provided to the respondents.

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

The following is cited from 14 CFR Part 413 - LICENSE APPLICATION PROCEDURES

§ 413.9 Confidentiality.

(d) Information or data for which confidential treatment has been requested or information or data that qualifies for exemption under section 552(b)(4) of Title 5, United States Code, will not be disclosed to the public unless the [Associate Administrator](#) determines that the withholding of the information or data is contrary to the public or national interest.

**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.**

No sensitive information is required.

**12. Provide estimates of the hour burden of the collection of information. The statement should:**

The burden estimate for industry involves hours associated with financial responsibility aspects of each launch license (i.e., data collection, maximum probable loss determination, documentation, and verification of insurance compliance, as well as the verification and maintenance of cross-waivers). The FAA estimated time required by industry based on prior experience and estimated that there will be an average of six license and/or permit applicants per year.

As shown in Table 1 the total annual industry hours for submitting licensing applications (1000) are calculated by multiplying industry hours to submit an application (100) by total annual applications (10). The industry hourly rate (\$81.28)<sup>1</sup> is the unit labor cost for aerospace engineering personnel involved in gathering, reviewing, and formatting the information required in each license application. The industry hourly rate is based on aerospace engineering personnel only; it does not include rates for executive or managerial

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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>

personnel. We multiplied the hourly wage rate by 2 to account for a fringe benefits rate of 69 percent<sup>2</sup> and an overhead rate of 31 percent.<sup>3</sup> Resulting in a fully loaded rate of \$162.56.

The estimated cost to industry per application (\$16,256) is calculated by multiplying the estimated unit loaded labor cost by the estimated industry hours required to submit an application (100). The total estimated annualized costs (\$162,560) are calculated by multiplying the cost to industry per application by the total annual applications (10).

**Table 1: Estimated Burden Hours and Annual Costs to Industry for Financial Responsibility Regulations**

Annual number of applicants	10
Annual number of applications per applicant	1
<b>Total annual applications</b>	<b>10</b>
Industry hours to submit an application	100
<b>Total annual industry hours</b>	<b>1000</b>
Industry hourly rate	\$162.56
Cost to industry per application	\$16,256
<b>Total estimated annualized costs</b>	<b>\$162,560</b>

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

There is no additional cost than that shown in item 12.

**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.**

The cost to the government for processing the financial information is driven by procedures involving review and analysis of the information contained in the application. The cost per

<sup>2</sup> Source: Congressional Budget Office, "Comparing the Compensation of Federal and Private-Sector Employees, 2011 to 2015" (April 2017), <https://www.cbo.gov/publication/52637>. The wages of Federal workers averaged \$38.30 per hour over the study period, while the benefits averaged \$26.50 per hour, which is a benefits rate of 69 percent.

<sup>3</sup> Source: U.S. Department of Health and Human Services, "Guidelines for Regulatory Impact Analysis" (2016), [https://aspe.hhs.gov/system/files/pdf/242926/HHS\\_RIAGuidance.pdf](https://aspe.hhs.gov/system/files/pdf/242926/HHS_RIAGuidance.pdf). On page 30, HHS states, "As an interim default, while HHS conducts more research, analysts should assume overhead costs (including benefits) are equal to 100 percent of pretax wages..." To isolate the overhead rate, the Department subtracted the benefits rate of 69 percent from the recommended rate of 100 percent.

first launch license includes additional costs related to data collection associated with the determination of maximum probable loss, as well as the verification and maintenance of cross waivers.

Based on the 2017 GS 13 Step 5 wage<sup>4</sup>, the annual cost per federal worker is \$107,435. The government hourly rate (\$51.65) is calculated by dividing the annual salary by the total yearly government working hours (2,080) per worker. We multiplied the hourly wage rate by 2 to account for a fringe benefits rate of 69 percent<sup>5</sup> and an overhead rate of 31 percent.<sup>6</sup> Resulting in a fully loaded hour rate of \$103.3.

The estimated cost to process the collected information is calculated by multiplying the average hourly wage rate (\$103.3) by the estimated total hours (1600). The total annual government hours to process the collected information (1600) are calculated by multiplying government hours required to process each application (160) by the total number of new applications (10). The total estimated annualized costs (\$165280) are calculated by multiplying the cost to the government per application (\$16528) by the total annual applications (10).

Burden estimates for the government are based on those hours required for facilitating pre-application consultation; license application acceptance and review procedures; disposition of a license (i.e., approved or disapproved); and issuance of the license. The government estimates include environmental personnel.

**Table 2: Estimated Burden Hours and Annual Costs to Government for Verifying Financial Responsibility Requirements**

Annual number of applicants	10
Annual number of applications per applicant	1
<b>Total annual applications</b>	<b>10</b>
Government hours to process an application	160
<b>Total annual Government hours</b>	<b>1600</b>

<sup>4</sup> SALARY TABLE 2017-DCB FOR THE LOCALITY PAY AREA OF WASHINGTON-BALTIMORE-ARLINGTON, DC-MD-VA-WV-PA

<sup>5</sup> Source: Congressional Budget Office, "Comparing the Compensation of Federal and Private-Sector Employees, 2011 to 2015" (April 2017), <https://www.cbo.gov/publication/52637>. The wages of Federal workers averaged \$38.30 per hour over the study period, while the benefits averaged \$26.50 per hour, which is a benefits rate of 69 percent.

<sup>6</sup> Source: U.S. Department of Health and Human Services, "Guidelines for Regulatory Impact Analysis" (2016), [https://aspe.hhs.gov/system/files/pdf/242926/HHS\\_RIAGuidance.pdf](https://aspe.hhs.gov/system/files/pdf/242926/HHS_RIAGuidance.pdf). On page 30, HHS states, "As an interim default, while HHS conducts more research, analysts should assume overhead costs (including benefits) are equal to 100 percent of pretax wages..." To isolate the overhead rate, the Department subtracted the benefits rate of 69 percent from the recommended rate of 100 percent.

Government hourly rate	\$103.3
Cost to Government per application	\$16528
<b>Total estimated annualized costs</b>	<b>\$165,280</b>

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

Adjustments are a result of using 2018 labor rates for the calculation of government and commercial burden costs. The government rate is based on the 2018 national average salary and hourly rate for GS13 step 5 employees. The industry rate is based on the 2018 Bureau of Labor Statistics average annual salary for aerospace engineers. FAA/AST has established a means for 100% electronic submission of permit and license applications. The electronic submission of applications has facilitated receiving an increasing number of applications and related information.

**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 MPL determination result is a financial responsibility for licenses or experimental permits. The MPL results appear in the license or experimental permit that are placed on AST's web site. The MPL collected information data and analysis are not published.

**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.**

No approval is sought.

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

There are no exceptions.