

**SUPPORTING STATEMENT
U.S. Department of Commerce
Bureau of Industry and Security**

**Defense Industrial Base Assessment:
The U.S. Rocket Propulsion Industry
OMB Control No. 0694-0119**

A. Justification

1. Explain the circumstances that make the collection of information necessary.

The Bureau of Industry and Security's Office of Technology Evaluation (OTE) is conducting an industrial base survey and assessment of the U.S. rocket propulsion industry. The domestic rocket propulsion industrial base consists of organizations responsible for the development, production, and sustainment of products and services supporting U.S. Government (both military-related and civilian) and commercial propulsion-related systems. This study is being performed at the request of the U.S. National Aeronautics and Space Administration (NASA), Marshall Space Flight Center (MSFC).

The principal goal of this survey and assessment is to gain an understanding of the supply chain network supporting propulsion-related systems. This joint effort will identify interdependencies between respondents, suppliers, customers, and U.S. Government agencies while also benchmarking performance across multiple tiers of the propulsion industry. The resulting database will allow NASA to develop planning and acquisition strategies to ensure the availability and security of the propulsion supply chain and raise awareness of diminishing domestic manufacturing and technological capabilities, among other issue areas.

Through this survey and assessment NASA will be able to more accurately identify technologies, products, and services deemed essential to maintaining U.S. leadership in rocket propulsion manufacturing and technology development. Additionally, results will inform NASA and other U.S. Government stakeholders of the industry's overall health and competitiveness. As a result, NASA will be better informed when determining policies to ensure the availability of propulsion-related materials of production across the U.S. supply chain network.

During its design and development of the survey instrument, OTE conducted site visits; gathered inputs from industry, academia, and the U.S. Government; and later field tested the draft survey instrument with both companies and government experts. Among them were senior members of the Joint Army, Navy, NASA, and Air Force Interagency Propulsion Committee's (JANNAF) Executive Committee and select industry leaders operating propulsion-related manufacturing and research and development (R&D) facilities domestically.

OTE has authority under Section 705 of the Defense Production Act of 1950 (DPA) and Executive Order 13603 to conduct assessments and collect information in support of the U.S. industrial base. These assessments are normally undertaken in partnership with the U.S. Department of Defense or with other federal agencies and typically focus on manufacturing capability, workforce, financial performance, and economic issues affecting key industrial sectors or critical technologies.

The enclosed survey questionnaire, which covers a four-year period, is the primary source of information needed for a defense industrial base assessment of this type.

By virtue of the above mentioned statute and executive order, OTE is the focal point for industrial base and critical technology analyses among civilian federal agencies, which includes mandatory data collection authority to carry out these assessment responsibilities. OTE has conducted nearly 60 surveys and assessments of this kind in the past 27 years. These studies review in detail those industries with challenges relating to employment/STEM, international competition and trade, financial performance, production, supply chain, investment, foreign sourcing and dependencies, and other factors influencing industry's ability to support end-users across commercial, defense, and other national security programs. This survey instrument is designed to collect information that facilitates such in-depth analysis.

2. Explain how, by whom, how frequently, and for what purpose the information will be used. If the information collected will be disseminated to the public or used to support information that will be disseminated to the public, then explain how the collection complies with all applicable Information Quality Guidelines.

OTE intends to survey approximately 400 organizations representing a substantial portion of the U.S. rocket propulsion industrial base.

The survey is a one-time only request. Quantitative data obtained from the survey responses will be compiled into a database for analysis, with publication consisting only of aggregate, nonproprietary results with no business confidential information. This data is needed to assess the status of companies in the U.S. rocket propulsion supply chain and also help identify specific issues and challenges facing participant companies. Qualitative questions are used in some limited cases to complement the statistical data. Through analysis of the aggregated survey results, the overall goal is to enable Congress, Executive Branch agencies, and industry to better monitor trends, benchmark industry performance, and raise awareness of potential rocket propulsion supply chain vulnerabilities which could adversely influence military-related production, defense readiness, and the warfighter.

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

To lessen the burden on respondents, OTE is asking firms to provide electronic submissions. Each respondent will receive a personalized letter and overview fact sheet which outline the requirements of the study and scope of information required. The letter will contain directions to the dedicated U.S. Department of Commerce portal where the respondent can gain access to the Excel survey instrument and corresponding PDF materials. This approach was used successfully for the 2015 Printed Circuit Board, 2016 Textiles, Apparel, and Footwear, and 2017 U.S. Integrated Circuits Design and Fabrication Capability surveys. All three survey instruments were reviewed and approved by OMB.

The statistical information requested in the survey tracks closely with categories adopted in the industry and verified by field tests. Almost all responding companies will have the necessary information stored electronically and will be able to retrieve it in the form requested. Other limited questions will require thought and perhaps discussion among several individuals for proper responses. These particular questions do not lend themselves to computer automation. However, such questions only require brief responses in the text boxes provided.

4. Describe efforts to identify duplication.

The information sought in the survey is unique and not available from any other source, either public or private. Some of the basic corporate data requested by OTE is submitted by companies to the U.S. Census Bureau. However, the Census Bureau is precluded by law from releasing information on specific companies and organizations.

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

The rocket propulsion sector is comprised of medium and large companies, primarily; however the survey will be distributed to a selection of small businesses. The survey instrument was designed to minimize the burden on all respondents. If for any reason the respondent cannot complete the survey in Excel format, OTE will work closely with the respondent to facilitate an alternate form of survey submission. Based on previous survey instruments, OTE expect almost all companies to respond electronically.

6. Describe the consequences to the Federal program or policy activities if the collection is not conducted or is conducted less frequently.

For the assessment of the U.S. rocket propulsion industry a survey is the only method available to OTE for carrying out responsibilities under the Defense Production Act of 1950- (DPA) and

Executive Order 13603. Without the survey instrument, OTE could not obtain company specific information on: liquid engine and solid motor manufacturing capability, launch program participation, additive manufacturing, mergers and acquisition, critical suppliers, financial performance, workforce, cyber incidents, research and development, future challenges, and inventories among other topic areas. The resulting database will allow OTE to benchmark industry performance, identify dependencies and interdependencies within the supply chain network, as well as raise awareness of diminishing manufacturing capabilities.

This method of data collection will allow NASA and other stakeholders to more accurately monitor industry trends and benchmark performance. Absent the insights generated from this information, such as reduced U.S. manufacturing capability or sole source non-U.S. supplier relationships, U.S. defense and civil capabilities could be jeopardized.

7. Explain any special circumstances that require the collection to be conducted in a manner inconsistent with OMB guidelines.

There are no special circumstances that will result in the collection of information in a manner inconsistent with the guidelines of 5 CFR 1320.6. Survey response information will contain business confidential information which will be protected by the U.S. Department of Commerce, Bureau of Industry and Security, consistent with OMB guidelines and 15 CFR Part 702.

8. Provide information of 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.

The Federal Register notice is not applicable to this collection because it falls within the scope of the BIS generic authority entitled, “National Security and Critical Technology Assessments of the U.S. Industrial Base,” as approved under OMB Control No. 0694-0119. This authority is renewed by OMB every three years (last in 2016) to support ongoing BIS industrial base assessment needs.

OTE personnel developed the survey in consultation with government and industry experts over a period of several months. The following is a list of select individuals who provided input:

Government

Rajiv Doreswamy, Marshall Space Flight Center, 256-544-7903

Brad E. Forch, RDECOM-U.S. Army Research Laboratory, 410-306-0929

Christine Michienzi, Office of the Secretary of Defense, 571-372-6242
Brad Perkins, Marshall Space Flight Center, 256-544-1357
Douglas Smith, Defense Logistics Agency, 571-423-8448
Frank Tse, Naval Surface Warfare Center, 301-744-1459

Industry Association

Mike Aller, Energy Florida, 321-613-2973
Beth Hacker, Joint Center for Aerospace Technology Innovation (JCATI), 206-685-8063
Dale Ketcham, Space Florida, 321-730-5301

Industry

Charlie Agreda, Empire Manufacturing, 860-436-5550
Stephanie Koster, Blue Origin, 425-891-6735
Jay Littles, Aerojet Rocketdyne (Jupiter), 256-922-2581
Tim Ritter, Atlantic Precision, 772-466-1011
Bryant Walker, Keystone Synergistic Enterprises, 772-343-7544
Fred C. Wilson, Aerojet Rocketdyne (Redmond), 425-702-6823

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

This survey will not involve any payment or gifts to respondents.

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

The survey, cover letter and fact sheet provide assurance to the respondents that the information collected through the survey will be deemed business confidential and will be treated in accordance with Section 705 of the Defense Production Act of 1950, as amended (50 U.S.C.A. app. Section 2061 et. seq.). This section prohibits the publication or disclosure of such information unless the President determines that its withholding is contrary to the national defense. The survey will be administered and the data collected via a secure U.S. Department of Commerce portal. Information submitted will not be shared with any non-government entity, other than in aggregate form. The U.S. Department of Commerce will protect the confidentiality of such information pursuant to the appropriate exemptions from disclosure under the Freedom of Information Act (FOIA), should it be the subject of a FOIA request. OTE has a long and successful track record of protecting business confidential information collected under the above statute.

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.

This survey will not collect information that could be construed as being of a sensitive nature, such as information concerning sexual behavior and attitudes, religious beliefs, and other matters that are commonly considered sensitive or private.

12. Provide an estimate in hours of the burden of the collection of information.

OTE estimates that the total burden placed on respondents by this assessment of the U.S. rocket propulsion industry will be approximately 5,600 hours. This estimate is based on distributing surveys to approximately 400 respondents with an average time of 14 hours needed to complete each survey.

This burden estimate is subject to variations among respondents due to discrepancies in rocket propulsion-related manufacturing capability, record keeping, company size, and other variables. The estimate is based on OTE's overall past experience, as well as specific feedback from industry participants in information collections such as integrated circuit design and fabrication capability, bare printed circuit boards, cartridge and propellant actuated devices, strategic materials, microelectronics, the U.S. space sector, healthcare products, and others.

The estimated total cost to respondents of this information collection is calculated as \$196,000. This estimate was made by assuming an average hourly respondent work rate of \$35 multiplied by 5,600 total burden hours.

13. Provide an estimate of the total annual cost burden to the respondents or record-keepers resulting from the collection (excluding the value of the burden hours in Question 12 above).

Not applicable.

14. Provide estimates of annualized cost to the Federal government.

The estimated cost to the Federal Government for the survey is \$318,647 over a one-year period. A major portion of this cost is related to the survey questionnaire, which includes preparing, collecting, verifying and tabulating the information, and analyzing the data. Other costs will be incurred in field testing the survey, summarizing the analysis and findings, preparing the final report, and report printing and distribution. The direct employee costs were estimated by assuming the hours spent on the project, about one-year equivalent, or 52 weeks and taking the one-year annual pay of one GS-15, step 10 and one GS-12, step 10. The direct employee costs are \$265,539.

Indirect or overhead costs associated with the project are calculated as 20 percent of the direct employee costs, or \$53,108. A review of OTE budgets from previous years indicates costs for building maintenance, telephone, computers, and space rental charges generally run about 20 percent of total employee costs.

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

Because the nature of this collection of information falls within BIS's generic authority entitled, "DOC/BIS National Security and Critical Technology Assessments of the U.S. Industrial Base," (OMB Control No. 0694-0119), there is no increase in burden hours. This is the second time BIS has used this authority in FY2017 (a total of 201,000 hours authorized in 2017). An unused balance of 189,800 annual burden hours (195,400 less 5,600 hours) will remain if the survey instrument is approved under this authority.

16. For collections whose results will be published, outline the plans for tabulation and publication.

All data collected will be aggregated before publishing to protect company confidentiality. The surveys will be provided electronically to the 400 companies in February 2017. The analysis will be initiated in May 2017 and a draft summary report will be prepared by the end of June 2017. The final summary report is planned for publication in September 2017.

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.

Not applicable. BIS will display the expiration date of this collection authority on all survey and instructional instruments the public receives.

18. Explain each exception to the certification statement.

Not applicable.

B. COLLECTIONS OF INFORMATION EMPLOYING STATISTICAL METHODS

Not applicable.