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

Technology Assessment: Night Vision Focal Plane Arrays, Sensors & Cameras
OMB Control No. 0694-0119

A. Justification

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

The Bureau of Industry and Security (BIS), Office of Technology Evaluation (OTE), is undertaking a technology assessment of the U.S. Night Vision Focal Plane Array, Sensor and Camera Sector. This assessment will be a consolidated update of the 2006 BIS study of the broader "U.S. Imaging and Sensors Industry" which was conducted jointly with the U.S. Department of the Army, Research, Development & Engineering Command. OMB had approved an industry survey instrument to support that effort in 2005. A public study, "U.S. Imaging and Sensors Industry", was released by BIS in October 2006.

Dramatic changes in the U.S. and global market for night vision related products and services, increased competition from Asian and European manufacturers, and enhancements to technologies and capabilities available for defense and commercial applications have generated a need to update key portions of the October 2006 "U.S. Imaging and Sensors Industry" study. There is concern that U.S. night vision-related production and products, which are used in critical weapons and intelligence systems, and controlled for global distribution, may be adversely impacted by U.S. Government regulations that push foreign customers to foreign suppliers and U.S. companies to transfer technology and production overseas, which negatively affects U.S. national and economic security. The results of this assessment will assist the USG in further safeguarding those night vision-related products which have significant and sometimes unique defense applications while better understanding how to update U.S. regulations so as not to undermine the viability of the U.S. night vision defense industrial base.

The Night Vision sector of the Imaging and Sensors Industry consists of four main segments: Uncooled and Cooled Infrared Focal Plane Arrays (FPAs), Image Intensifier Tubes, Low Light FPAs/Sensors, and Cameras. The principal goal of this proposed data collection is to quantify production by units and value of each segment for dual-use and defense markets; determine sales of the four segments for both U.S. and non-U.S. customers; stratify the quality and technological capabilities of products manufactured for dual-use and military applications; identify non-U.S. competitors for each segment; describe the impact of export controls on firms participating in

global night vision markets; and quantify specific instances of research and development funding provided by the Defense Department for all four segments.

Through the successful collection and analysis of this data, the USG will have a better understanding of the potential challenges, including regulatory, and opportunities confronting U.S. manufacturers and exporters of night vision-related products for both dual-use and defense markets. The final report will also assist U.S. industry and government policy officials monitor trends, benchmark performance and raise awareness of potential lags in U.S. technological and production capabilities for night vision-related products which could jeopardize U.S. leadership in this important sector.

Assisting OTE in this survey and assessment are representatives from a variety of agencies including the Departments of State and Defense, and the Office of the Director of National Intelligence. A number of private companies are also providing input regarding night vision-related products including Sofradir-EC, K & A Wireless, Teledyne Judson Technologies and FLIR Systems.

OTE has authority under Section 705 of the Defense Production Act of 1950, as amended and Executive Order 12656, to conduct assessments and collect information from industry in support of the U.S. defense industrial base. These assessments are normally undertaken in partnership with Department of Defense or with other federal agencies. They usually focus on industrial, financial and economic issues affecting specific key industrial sectors or critical technologies.

The enclosed survey questionnaire, which covers the period 2007-2010, the years immediately following the completion of the 2006 U.S. Imaging and Sensors Industry assessment, is the primary source of information needed for a technology assessment of this type.

The information gained from the survey will be used to: 1- quantify and assess the technological and production capabilities of firms that participate in the four segments of the night vision sector; 2- determine sales levels including exports; understand the impact of export controls and Defense Department R&D spending on individual firms; gather information of non-U.S. competitors in the global marketplace for dual-use and defense night vision products; 3- identify trends and develop findings regarding the U.S. night vision sector, building upon information previously gathered from the 2006 U.S. Imaging and Sensors Industry study; and 4- provide government and industry representatives with a comprehensive picture of this critical sector to better prepare and plan for potential market and technological challenges which could negatively affect U.S. leadership in this defense critical sector.

OTE is the focal point for industrial base and critical technology analyses among civilian Federal agencies by virtue of the above mentioned statute and executive order, which includes mandatory data collection authority to carry out these responsibilities. OTE has conducted approximately 43 assessments of this nature in the past 20 years under various related defense industrial base programs. Assessments generally review in detail those industries experiencing employment, international competition, financial, production, investment, foreign sourcing and dependencies and other factors which may affect their ability to support the industrial base, including defense and national security programs. The survey document is designed to collect information that facilitates this kind of 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 60 companies representing various segments of the U.S. Night Vision Sector – Uncooled and Cooled Infrared Focal Plane Arrays (FPAs), Image Intensifier Tubes, Low Light FPAs/Sensors, and Cameras. The survey is a one-time only request. Quantitative data obtained from the survey will be compiled into an aggregate database for analysis and eventual publication. This data is needed to assess trends in production and technological developments, sales and exports of dual-use and defense products, international competition, and foreign sourcing and dependencies. Qualitative questions are used in some limited cases to complement the statistical data. Using the aggregated survey data, the overall goal is to enable the private sector and government agencies to monitor trends, benchmark industry and government performance, and raise awareness of the implications of potential challenges to the overall U.S. night vision sector which could diminish U.S. leadership in night vision dual-use and defense applications.

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 encouraging the firms to provide electronic responses. Each respondent will receive a personalized letter which outlines the requirements of the study and the scope of information required. The letter will also contain directions to the BIS website where the respondent can gain access to the Excel survey application. This approach was used successfully for the 2010 Encryption Products, 2010 NASA Supply Chain and 2010 Healthcare Infrastructure surveys. All three surveys were reviewed and approved by OMB.

The statistical information requested in the survey tracks closely with categories and groups commonly used in the industry and verified by field-testing the OTE survey. Almost all firms will have the information computerized and will be able to retrieve it in the form requested on the survey. Other limited questions will require thought and perhaps discussion among several individuals for proper responses. These questions do not lend themselves to standardized computer automation. However, the 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 background data requested is submitted by firms in a statistical sample to the U.S. Census Bureau. However, the Census Bureau is precluded by law from releasing information on specific companies.

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

While the majority of night vision companies are medium and large size firms, this survey will be distributed to a number of small businesses. The electronic survey instrument was designed to minimize the burden on all respondents. If for any reason the respondent cannot complete the survey in Excel, OTE will work with the respondent on an alternate form of submission. However, due to the world class status of the U.S. Night Vision sector, we are expecting almost all firms 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.

In the case of this technology assessment of the U.S. Night Vision Focal Plane Array, Sensor and Camera Sector, a survey is the only method available for OTE to carry out its responsibilities under the Defense Production Act of 1950, as amended, and Executive Order 12656. Without the information gathered from the survey, OTE could not: 1- quantify and assess the technological and production capabilities of firms that participate in the four segments of the night vision sector; 2- determine sales levels including exports; 3- understand the impact of export controls and Defense Department R& D spending on individual firms; 4- gather information on non-U.S. competitors in the global marketplace for dual-use and defense night

vision products; 5- identify trends and develop findings regarding the U.S. night vision sector, in part building upon information previously gathered from the 2006 U.S. Imaging and Sensors Industry study; and 6- provide government and industry representatives with a comprehensive picture of this critical sector to better prepare and plan for potential market and technological challenges which could negatively affect U.S. leadership in this defense critical sector.

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 responses will contain business confidential information, which will be protected by the U.S. Department of Commerce, Bureau of Industry and Security.

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," approved under OMB Control No. 0694-0119. This authority is renewed every three years (last renewed in 2010) to support on-going BIS defense industrial base assessment needs.

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

Government
Jimmy Noonan, Office of the Director for National Intelligence – 703-874-2471
Peter Revesc, Department of State – 571-201-5639
John Albert, Department of State – 202-647-2801
Chris Costanzo, Department of Commerce – 202-482-0718

Companies
John Goodrich, DRS – 952-334-3454
Steve Tribble, FLIR Systems – 503-498-3301
Matthew Schmidt, Fluke – 769-398-6472

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; however, copies of the completed public version of the Technology Assessment: National Security Assessment: U.S. Night Vision Focal Plane Array, Sensor and Camera Sector will be provided to the respondents upon request.

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

The survey and its cover letter provide assurances 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 Internet server. Information submitted will not be shared with any non-government entity, other than in aggregate form, and 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 the respondents by this U.S. Night Vision Focal Plane Array, Sensor, and Camera Sector survey effort will be approximately **360 hours**. This is based on distributing surveys to approximately 60 respondents with an average time of 6 hours needed to complete the survey.

This burden estimate is subject to variations among individual respondents because of differences in night vision product participation, record keeping, organization size, and other variables. The estimate is based on the past experience of OTE, as well as feedback from companies and organizations that have completed our surveys. OTE has conducted surveys of various industries, including imaging and sensors, biotechnology, NASA supply chain network, U.S. space industry, counterfeit electronics, 5-axis machine tools, microelectronics, encryption products and others.

The estimated total cost to respondents of this information collection is $12,600. This estimate was calculated by assuming a respondent average work rate of $35 per hour multiplied by the total burden hours of 360.

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 $123,039. A major portion of this cost is related to the survey questionnaire, which includes preparation, collecting and verifying the information, and analyzing the data. Other costs will be incurred in 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 as about three-quarters year equivalent, or 39 weeks and taking three-quarters the annual pay of one GS-14, step 10. The direct employee cost is $102,533.

Indirect or overhead costs associated with the project are calculated as 20 percent of the direct employee cost, or $20,506. 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 FY2011 (a total of 61,400 authorized hours remaining). An unused balance to the authority of 61,040 annual burden hours (61,400 minus 360) will remain if the assessment 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 60 companies in late March 2011. The analysis and report writing will be started in May 2011, a draft report prepared by the end of June 2011. The final report is planned for publication in August 2011.

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 information 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.