Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Office of the Secretary Of Defense

Appropriation/Budget Activity R-1 Prog

0400: Research, Development, Test & Evaluation, Defense-Wide I BA 6:

RDT&E Management Support

R-1 Program Element (Number/Name)

PE 0605798D8Z I Defense Technology Analysis

**Date:** February 2015

| 9 11                                     |                |         |         |                 |                |                  |         |         |         |         |                     |               |
|--|----------------|---------|---------|-----------------|----------------|------------------|---------|---------|---------|---------|---------------------|---------------|
| COST (\$ in Millions)                    | Prior<br>Years | FY 2014 | FY 2015 | FY 2016<br>Base | FY 2016<br>OCO | FY 2016<br>Total | FY 2017 | FY 2018 | FY 2019 | FY 2020 | Cost To<br>Complete | Total<br>Cost |
| Total Program Element                    | -              | 9.393   | 22.074  | 13.960          | -              | 13.960           | 24.809  | 26.084  | 28.033  | 28.331  | Continuing          | Continuing    |
| P796: Laboratory Resource<br>Management  | -              | 1.767   | 12.340  | 2.038           | -              | 2.038            | 3.456   | 3.666   | 3.897   | 3.950   | Continuing          | Continuing    |
| P797: Defense Technology<br>Analysis     | -              | 4.439   | 4.880   | 3.532           | -              | 3.532            | 5.153   | 5.124   | 5.678   | 5.755   | Continuing          | Continuing    |
| P798: Defense Support Teams              | -              | 2.285   | 1.817   | 1.471           | -              | 1.471            | 2.318   | 2.307   | 2.423   | 2.455   | Continuing          | Continuing    |
| P579: Critical Technology<br>Assessments | -              | 0.902   | 0.603   | 0.800           | -              | 0.800            | 1.317   | 1.333   | 1.441   | 1.460   | Continuing          | Continuing    |
| P102: Data Vulnerability Tiger<br>Team   | -              | -       | 2.434   | 6.119           | -              | 6.119            | 12.565  | 13.654  | 14.594  | 14.711  | Continuing          | Continuing    |

#### Note

The FY 2016 funding request was reduced by \$4.870 million to account for the availability of prior year execution balances.

## A. Mission Description and Budget Item Justification

The Assistant Secretary of Defense for Research and Engineering (ASD(R&E)) is the principal staff advisor to the Under Secretary of Defense for Acquisition, Technology and Logistics (USD(AT&L)) and the Secretary and Deputy Secretary of Defense for Research and Engineering (R&E) matters. In this capacity, the ASD(R&E) has the responsibility to conduct analyses and studies; develop policies; provide technical leadership, oversight and advice; make recommendations; and issue guidance for Department of Defense (DoD) R&E programs. Additionally, the ASD(R&E) provides technical support to the USD(AT&L) on R&E aspects of programs subject to review by the Defense Acquisition Board, to include assessments of technology maturity consistent with DoD acquisition policy. The mission of the DoD R&E program is to create, demonstrate, prototype, and apply technology that enables affordable and decisive military superiority. Pursuing the R&E mission requires attention to: (1) identification and development of new technological opportunities; (2) insertion of new technologies into warfighting systems and operations; and (3) management and evaluation of the effectiveness of technology programs. This program element (PE) provides mission support to the Office of the ASD(R&E) (OASD(R&E)) covering a wide range of studies and analysis in support of the R&E program and it impacts to the Department's decision to fund Research, Development, Test and Evaluation (RDT&E) efforts.

The PE provides funding for the Defense Laboratory Office within the ASD(R&E). The Defense Laboratory Office advocates and invests in the DoD laboratory system in three areas: (1) facilities and infrastructure; (2) quality of workforce; and (3) global insight of critical or strategic technologies important to the Department and the Nation.

The PE provides engineering, scientific, and analytical support to the ASD(R&E) in its responsibility for direction, overall quality, and content of the science and technology (S&T) program. Ensures that the technology being developed is affordable and minimizes system development risk. The Defense Technology Analysis

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Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Office of the Secretary Of Defense

Appropriation/Budget Activity

R-1 Program Element (Number/Name)

0400: Research, Development, Test & Evaluation, Defense-Wide I BA 6:

PE 0605798D8Z I Defense Technology Analysis

**Date:** February 2015

RDT&E Management Support

program conducts assessments and analysis, to ensure maximum utilization of research and development funds, to accomplish the overall objectives of the S&T program. Funds are required for technical, analytical and management support, equipment and supplies, travel, and publications.

The DoD's key expertise for reviewing and guiding R&E programs resides in the ASD(R&E). The ASD(R&E) staff augment their responsibilities through their connections to technology experts in various fields throughout academia, industry, and government. The Defense Support Teams project supports the directed responsibilities by building teams of technology experts to conduct program technical assessments. The teams analyze the key engineering problem areas and offer adjustments in the development and test plan; alternate technical approaches; or new technologies that could enable successful development. The teams provide unbiased reviews and gather advice from the Nation's leading technical experts.

The PE provides funding for Critical Technology Assessments within ASD(R&E). Critical Technology Assessments provide the technical reference guidance in support of development and implementation of DoD technology security policies on international transfers of defense related goods, services, and technologies. The program provides an ongoing assessment and analysis of global goods and technologies; determines significant advances in the development, production, and use of military capabilities by potential adversaries; and determines goods and technologies being developed worldwide with potential to significantly enhance or degrade U.S. military capabilities in the future.

This PE also provides funding for the Data Vulnerability Tiger Team to establish a joint analysis capability to conduct comprehensive assessments of unclassified information losses, engaging acquisition and intelligence sources to determine consequences and appropriate preventative/mitigation actions.

| B. Program Change Summary (\$ in Millions)                                     | FY 2014 | FY 2015 | FY 2016 Base | FY 2016 OCO | FY 2016 Total |
|--|---------|---------|--------------|-------------|---------------|
| Previous President's Budget  | 8.332   | 12.105  | 15.389       | -           | 15.389        |
| Current President's Budget   | 9.393   | 22.074  | 13.960       | -           | 13.960        |
| Total Adjustments  | 1.061   | 9.969   | -1.429       | -           | -1.429        |
| Congressional General Reductions   | -       | -       |              |             |               |
| Congressional Directed Reductions  | -       | -       |              |             |               |
| Congressional Rescissions  | -       | -       |              |             |               |
| <ul> <li>Congressional Adds</li> </ul>   | -       | 10.000  |              |             |               |
| <ul> <li>Congressional Directed Transfers</li> </ul>                           | -       | -       |              |             |               |
| <ul> <li>Reprogrammings</li> </ul>   | 1.367   | -       |              |             |               |
| SBIR/STTR Transfer   | -0.306  | -       |              |             |               |
| <ul> <li>FFRDC Sec 8104</li> </ul>   | -       | -0.031  | -            | -           | -             |
| Baseline Increase  | -       | -       | 3.481        | -           | 3.481         |
| <ul> <li>Economic Assumptions</li> </ul>                                       | -       | -       | -0.040       | -           | -0.040        |
| <ul> <li>Reduction to account for prior year<br/>execution balances</li> </ul> | -       | -       | -4.870       | -           | -4.870        |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Office of the Secre | etary Of Defense                            | Date: February 2015 |
|---|---|---------------------|
| Appropriation/Budget Activity   | R-1 Program Element (Number/Name)           |                     |
| 0400: Research, Development, Test & Evaluation, Defense-Wide I BA 6:      | PE 0605798D8Z I Defense Technology Analysis |                     |
| RDT&E Management Support  |   |                     |

| Congressional Add Details (\$ in Millions, and Includes General Reductions) | FY 2014 | FY 2015 |  |
|---|---------|---------|--|
| Project: P796: Laboratory Resource Management                               |         |         |  |
| Congressional Add: Defense Technology Transfer Program                      | -       | 10.000  |  |
| Congressional Add Subtotals for Project: P796                               | -       | 10.000  |  |
| Congressional Add Totals for all Projects                                   | _       | 10.000  |  |

# **Change Summary Explanation**

The Data Vulnerability Tiger Team is a new project, P102, within the DTA PE beginning in FY 2015.

Funding decreases were used to pay for higher priority DoD bills.

NOTE: The FY 2016 funding request was reduced by \$4.870 million to account for the availability of prior year execution balances.

| Exhibit R-2A, RDT&E Project Ju          | ustification   | : PB 2016 C | Office of the | Secretary       | Of Defense     |                  |                           |         |         | Date: Febr  | uary 2015           |               |
|---|----------------|-------------|---------------|-----------------|----------------|------------------|---------------------------|---------|---------|---|---------------------|---------------|
| Appropriation/Budget Activity 0400 / 6  |                |             |               |                 | _              |                  | t (Number/<br>fense Techn | •       | • •     | Project (Number/Name) P796 / Laboratory Resource Manage |                     |               |
| COST (\$ in Millions)                   | Prior<br>Years | FY 2014     | FY 2015       | FY 2016<br>Base | FY 2016<br>OCO | FY 2016<br>Total | FY 2017                   | FY 2018 | FY 2019 | FY 2020   | Cost To<br>Complete | Total<br>Cost |
| P796: Laboratory Resource<br>Management | -              | 1.767       | 12.340        | 2.038           | -              | 2.038            | 3.456                     | 3.666   | 3.897   | 3.950   | Continuing          | Continuing    |
| Quantity of RDT&E Articles              | -              | -           | -             | -               | -              | -                | -                         | -       | -       | -   |                     |               |

### A. Mission Description and Budget Item Justification

B. Accomplishments/Planned Programs (\$ in Millions)

The Defense Laboratory Office provides advocacy, strategic planning, and policy for the DoD's in-house laboratories. The DoD Laboratory Enterprise consists of 62 laboratories with approximately 67,000 employees and an annual budget of more than \$30.000 billion. The Defense Laboratory Office develops plans and investment strategies for laboratory infrastructure, technology programs, and personnel development.

| <u> </u>  | 1 1 2017 | 1 1 2010 | 1 1 2010 |
|---|----------|----------|----------|
| Title: Defense Laboratory Office  | 1.767    | 2.340    | 2.038    |
| <b>Description:</b> Provides advocacy, strategic planning, and policy for the DoD's in-house laboratories. Develops plans and investment strategies for laboratory infrastructure, technology programs, and personnel development.                          |          |          |          |
| FY 2014 Accomplishments:  |          |          |          |
| • Executed a quantitative assessment of the DoD in-house laboratory system. Product is a companion report to the USD(AT&L) Acquisition Program Performance report.  |          |          |          |
| • Continued refinement and analysis of laboratory Circulating Tumor Cells (CTCs); ensured laboratories are maintaining and/or developing needed capabilities in critical mission areas.   |          |          |          |
| <ul> <li>Initiated execution of new Technology Transfer (T2) Center of Excellence.</li> <li>Supported congressional reporting requirements for laboratory Military Construction (MILCON), Section 219, personnel policies</li> </ul>                        |          |          |          |
| and others.   |          |          |          |
| FY 2015 Plans:  |          |          |          |
| Collect and analyze DoD lab metrics as defined in FY 2014 assessment. Determine significance of trends and develop corrective actions as needed.  |          |          |          |
| • Expand the function of the T2 Center of Excellence established in FY 2014. Collect and analyze metrics.   |          |          |          |
| • Conduct a pilot program on public-private technology transfer ventures between DoD research and development centers and regionally focused technology incubators, with the goal of increasing the commercialization of intellectual property developed in |          |          |          |
| the DoD research and development enterprise in support of critical cross-Service technological needs.   |          |          |          |
| FY 2016 Plans:  |          |          |          |
|   |          |          |          |

FY 2014 | FY 2015 | FY 2016

| Exhibit R-2A, RDT&E Project Justification: PB 2016 Office of the Secretary | Of Defense  | Date: February 2015   |
|--|---|---|
| Appropriation/Budget Activity 0400 / 6                                     | R-1 Program Element (Number/Name) PE 0605798D8Z / Defense Technology Analysis | Project (Number/Name) P796 I Laboratory Resource Management |
|  |   |   |

| B. Accomplishments/Planned Programs (\$ in Millions)   | FY 2014 | FY 2015 | FY 2016 |
|--|---------|---------|---------|
| Continue refinement of DoD laboratory metrics for assessment of in-house lab system. Formulate recommendations to                |         |         |         |
| ASD(R&E) and Service leadership for improvements to identified problem areas within the lab system based upon data collected     |         |         |         |
| and concurrent trends analyses.  |         |         |         |
| • Decide to terminate, continue or expand the T2 Center of Excellence established in FY 2014. Decision will be guided by metrics |         |         |         |
| such as number of new technology products transferred to dual-use marketplace and offered back to DoD at reduced cost,           |         |         |         |
| number of new start-up companies in the dual-use marketplace, and economic impact of expanded DoD lab T2 program.                |         |         |         |
| Accomplishments/Planned Programs Subtotals   | 1.767   | 2.340   | 2.038   |

|  | FY 2014 | FY 2015 |
|--|---------|---------|
| Congressional Add: Defense Technology Transfer Program   | _       | 10.000  |
| <b>FY 2015 Plans:</b> Conduct a pilot program on public-private technology transfer ventures between DoD research and development centers and regionally focused technology incubators, with the goal of increasing the commercialization of intellectual property developed in the Department's research and development enterprise in support of critical cross-service technological needs. |         |         |
| Congressional Adds Subtotals   | -       | 10.000  |

# C. Other Program Funding Summary (\$ in Millions)

N/A

## Remarks

# D. Acquisition Strategy

N/A

### E. Performance Metrics

The performance of the Laboratory Resource Management project is based on the success of initiatives to implement strategic planning objectives. Measures include the quality and timeliness of policy, plans, guidance, and processes.

| Exhibit R-2A, RDT&E Project Justification: PB 2016 Office of the Secretary Of Defense |                |         |         |                 |                |                          |         | Date: February 2015 |         |  |                     |               |
|---|----------------|---------|---------|-----------------|----------------|--------------------------|---------|---------------------|---------|--|---------------------|---------------|
| Appropriation/Budget Activity 0400 / 6  |                |         |         |                 | _              | am Elemen<br>98D8Z / Def | •       | •                   | • `     | oject (Number/Name) 97 / Defense Technology Analysis |                     |               |
| COST (\$ in Millions)   | Prior<br>Years | FY 2014 | FY 2015 | FY 2016<br>Base | FY 2016<br>OCO | FY 2016<br>Total         | FY 2017 | FY 2018             | FY 2019 | FY 2020  | Cost To<br>Complete | Total<br>Cost |
| P797: Defense Technology<br>Analysis  | -              | 4.439   | 4.880   | 3.532           | -              | 3.532                    | 5.153   | 5.124               | 5.678   | 5.755  | Continuing          | Continuing    |
| Quantity of RDT&E Articles  | -              | -       | -       | -               | -              | -                        | -       | -                   | -       | -  |                     |               |

## A. Mission Description and Budget Item Justification

The Defense Technology Analysis (DTA) project provides engineering, scientific and analytical support to the Office of the Deputy Assistant Secretary of Defense for Research (ODASD(R)) in its responsibility for direction, overall quality, and content of the science and technology (S&T) program and ensures that the technology being developed is affordable and minimizes system development risk. The DTA program conducts assessments and analyses to ensure maximum utilization of research and development funds to accomplish the overall objectives of the S&T program. Funds are required for technical, analytical, and management support, travel, and publications.

| B. Accomplishments/Planned Programs (\$ in Millions)  | FY 2014 | FY 2015 | FY 2016 |
|---|---------|---------|---------|
| Title: DoD Technology Analysis  | 4.439   | 4.880   | 3.532   |
| <b>Description:</b> The Defense Technology Analysis (DTA) project provides engineering, scientific and analytical support to the Office of the Deputy Assistant Secretary of Defense for Research (ODASD(R)) in its responsibility for direction, overall quality, and content of the science and technology (S&T) program and ensures that the technology being developed is affordable and minimizes system development risk.   |         |         |         |
| FY 2014 Accomplishments:  |         |         |         |
| Provided engineering, scientific, analytical, and managerial support to the ODASD(R). Efforts included:   |         |         |         |
| Congressional report - Counter Terrorism & Counter Insurgency;  |         |         |         |
| Congressional report - Personal Protection Study & Strategy to Improve Body Armor;  |         |         |         |
| Response to Deputy Secretary of Defense for implementation of the President's Executive Action for "Continuing our  |         |         |         |
| Commitment to Improve Treatments for Mental Health Conditions, Including PTSD";   |         |         |         |
| Workshop on cognitive sciences/autonomy;  |         |         |         |
| Workshop on directed energy;  |         |         |         |
| Analysis of techniques to passively detect, characterize, and localize low probability intercept signals;      Workshop and appropriate of limited affectable level solutions and appropriate and appropriate training appropriate training and appropriate training appropriate training appropriate training and appropriate training appropriate tra |         |         |         |
| Workshop and summary on limited, affordable, low-volume manufacturing; and,     Workshop and summary on his data in materials recovered and development.  |         |         |         |
| Workshop and summary on big data in materials research and development.   |         |         |         |
| FY 2015 Plans:  |         |         |         |
| Provide engineering, scientific, analytical, and managerial support to the ODASD(R) in:   |         |         |         |
| Developing strategies, plans, and policies to develop and exploit technology;   |         |         |         |

| Exhibit R-2A, RDT&E Project Justification: PB 2016 Office of t   | he Secretary Of Defense  | Date: I                               | ebruary 201 | 5       |
|--|--|---------------------------------------|-------------|---------|
| Appropriation/Budget Activity<br>0400 / 6  | R-1 Program Element (Number/Name) PE 0605798D8Z I Defense Technology Analysis  | Project (Number/<br>P797 / Defense Te | alysis      |         |
| B. Accomplishments/Planned Programs (\$ in Millions)  Conducting technology analyses, making recommendations, and Reviewing acquisition programs and making recommendations  Oversight of S&T issues and initiatives and responding to Congresses, Seeking opportunities for interdepartmental and international cocoordination to achieve goals as necessary.   | to optimize effectiveness of the DoD investments; ressional special interests; and   | FY 2014                               | FY 2015     | FY 2016 |
| FY 2016 Plans: Provide engineering, scientific, analytical, and managerial suppore Developing strategies, plans, and policies to develop and exploie Conducting technology analyses, making recommendations, and Reviewing acquisition programs and making recommendations Oversight of S&T issues and initiatives and responding to Congresseking opportunities for interdepartmental and international concordination to achieve goals as necessary. | t technology; d developing guidance for S&T plans and programs; to optimize effectiveness of the DoD investments; ressional special interests; and |                                       |             |         |

# C. Other Program Funding Summary (\$ in Millions)

N/A

Remarks

# D. Acquisition Strategy

N/A

### E. Performance Metrics

Several indicators allow the Department to measure the success of the DTA program element. The number of efforts funded and completed satisfactorily and the OASD(R&E) influence on S&T program decisions serve as valuable indicators of the program's effectiveness. Feedback into the oversight mechanisms of the program to guide investment decisions serve as additional metrics.

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4.439

4.880

3.532

**Accomplishments/Planned Programs Subtotals** 

| Exhibit R-2A, RDT&E Project Ju         | stification    | PB 2016 C | Office of the   | Secretary (     | Of Defense     |                  |  |         |         | Date: Febr | uary 2015        |               |
|--|----------------|-----------|---|-----------------|----------------|------------------|--|---------|---------|------------|------------------|---------------|
| Appropriation/Budget Activity 0400 / 6 |                |           | R-1 Program Element (Number/Name) PE 0605798D8Z I Defense Technology Analysis |                 |                |                  | Project (Number/Name) P798 / Defense Support Teams |         |         |            |                  |               |
| COST (\$ in Millions)                  | Prior<br>Years | FY 2014   | FY 2015   | FY 2016<br>Base | FY 2016<br>OCO | FY 2016<br>Total | FY 2017  | FY 2018 | FY 2019 | FY 2020    | Cost To Complete | Total<br>Cost |
| P798: Defense Support Teams            | -              | 2.285     | 1.817   | 1.471           | -              | 1.471            | 2.318  | 2.307   | 2.423   | 2.455      | Continuing       | Continuing    |
| Quantity of RDT&E Articles             | -              | -         | -   | -               | -              | -                | -  | -       | -       | -          |                  |               |

### A. Mission Description and Budget Item Justification

The Department's key expertise for reviewing and guiding research and engineering (R&E) programs resides in the Office of the Assistant Secretary of Defense for Research and Engineering (OASD(R&E)). The OASD(R&E) staff augments their responsibilities through connections to technology experts in various fields throughout academia, industry, and government. The Defense Support Teams project supports the directed responsibilities by building teams of technology experts to conduct program technical health check-ups. The teams analyze the key engineering problem areas and offer adjustments in the development and test plans; alternate technical approaches; or new technologies that could enable successful development. The teams provide unbiased reviews and gather advice from the Nation's leading technical experts.

| B. Accomplishments/Planned Programs (\$ in Millions)  | FY 2014 | FY 2015 | FY 2016 |
|---|---------|---------|---------|
| Title: Defense Support Teams  | 2.285   | 1.817   | 1.471   |
| <b>Description:</b> The Defense Support Teams project supports the directed responsibilities by building teams of technology experts to conduct program technical health check-ups. The teams analyze the key problem areas and offer adjustments in the development plans; alternate technical approaches; or new technologies that could enable successful development. The teams provide unbiased reviews and gather advice from the Nation's leading technical experts. |         |         |         |
| FY 2014 Accomplishments:  |         |         |         |
| Established support teams and conducted technology analyses to support R&E program investment decisions and recommendations. Efforts supported by the project included:   |         |         |         |
| Responses to Congress on matters pertaining to the use of live tissue training;   |         |         |         |
| • DoD input to the White House National Science and Technology Council - Task Force on Ebola Response S&T and,  |         |         |         |
| • DoD input to the White House National Science and Technology Council - Common Rule Modernization Working Group.   |         |         |         |
| FY 2015 Plans:  |         |         |         |
| Establish support teams and conduct technology analyses to support R&E program investment decisions. For selected acquisition programs and efforts, review in technical detail the respective program issues and offer technical solutions to program managers. Assess the maturity of technologies that are candidates for transition to acquisition programs.   |         |         |         |
| FY 2016 Plans:  |         |         |         |
|   |         | '       |         |

| Exhibit R-2A, RDT&E Project Justification: PB 2016 Office of the Secretary 0 | Date: February 2015 |  |                                   |
|--|---------------------|--|-----------------------------------|
| , · · · · · · · · · · · · · · · · · · ·                                      | ,                   |  | imber/Name)<br>ense Support Teams |

| B. Accomplishments/Planned Programs (\$ in Millions)  | FY 2014 | FY 2015 | FY 2016 |
|---|---------|---------|---------|
| Establish support teams and conduct technology analyses to support R&E program investment decisions. For selected                   |         |         |         |
| acquisition programs and efforts, review in technical detail the respective program issues and offer technical solutions to program |         |         |         |
| managers. Assess the maturity of technologies that are candidates for transition to acquisition programs.                           |         |         |         |
| Accomplishments/Planned Programs Subtotals  | 2.285   | 1.817   | 1.471   |

## C. Other Program Funding Summary (\$ in Millions)

N/A

Remarks

## **D. Acquisition Strategy**

N/A

#### **E. Performance Metrics**

Several indicators allow the Department to measure the success of the Defense Technology Analysis (DTA) program element. The number of technological introspections as evidenced by completed support teams and OASD(R&E) influence on acquisition decisions serve as valuable indicators of the program's effectiveness. The establishment and outputs of Defense Support Teams are additional indicators of program metrics. Feedback into the oversight mechanisms of the science and technology (S&T) program to guide investment decisions serve as additional metrics.

| Exhibit R-2A, RDT&E Project Ju           | ustification   | : PB 2016 C | Office of the | Secretary (     | Of Defense                          |                  |                           |         |         | Date: Febr  | uary 2015           |               |
|--|----------------|-------------|---------------|-----------------|-------------------------------------|------------------|---------------------------|---------|---------|---|---------------------|---------------|
| Appropriation/Budget Activity 0400 / 6   |                |             |               |                 | R-1 Progra<br>PE 060579<br>Analysis |                  | t (Number/<br>fense Techn |         |         | roject (Number/Name)<br>579 / Critical Technology Assessmen |                     |               |
| COST (\$ in Millions)                    | Prior<br>Years | FY 2014     | FY 2015       | FY 2016<br>Base | FY 2016<br>OCO                      | FY 2016<br>Total | FY 2017                   | FY 2018 | FY 2019 | FY 2020   | Cost To<br>Complete | Total<br>Cost |
| P579: Critical Technology<br>Assessments | -              | 0.902       | 0.603         | 0.800           | -                                   | 0.800            | 1.317                     | 1.333   | 1.441   | 1.460   | Continuing          | Continuing    |
| Quantity of RDT&E Articles               | -              | -           | -             | -               | -                                   | -                | -                         | -       | -       | -   |                     |               |

## A. Mission Description and Budget Item Justification

Critical Technology Assessments provide the technical reference guidance in support of development and implementation of DoD technology security policies on international transfers of defense related goods, services, and technologies. The export control program provides an ongoing assessment and analysis of global goods and technologies. Determines significant advances in the development, production, and use of military capabilities by potential adversaries. Determines goods and technologies being developed worldwide with potential to significantly enhance or degrade U.S. military capabilities in the future. Identified in the Export Administration Act of 1979 and extended by Presidential Executive Order to review militarily critical goods and technologies and to consider worldwide technology capabilities. The Militarily Critical Technologies List (MCTL) is a congressionally mandated source document for identification of leading edge and current technologies monitored worldwide for national security, nonproliferation control of weapons of mass destruction, and advanced conventional weapons.

#### Specific activities include:

- Monitor and assess dual-use and military technologies worldwide.
- Assist in the development of proposals for negotiation in various multilateral export control regimes.
- Provide limited worldwide technology capability assessments for the MCTL and other U.S. international critical technologies efforts.
- Identify and determine technical parameters for proposals for international control of weapons of mass destruction.
- Identify foreign technologies of interest to the DoD and opportunities for international cooperative research and development.

| B. Accomplishments/Planned Programs (\$ in Millions)  | FY 2014 | FY 2015 | FY 2016 |
|---|---------|---------|---------|
| Title: Critical Technology Assessments  | 0.902   | 0.603   | 0.800   |
| <b>Description:</b> Critical Technology Assessments provide the technical reference guidance in support of development and implementation of DoD technology security policies on international transfers of defense related goods, services, and technologies. The export control program provides an ongoing assessment and analysis of global goods and technologies. Determines significant advances in the development, production, and use of military capabilities by potential adversaries. Determines goods and technologies being developed worldwide with potential to significantly enhance or degrade U.S. military capabilities in the future. |         |         |         |
| FY 2014 Accomplishments: - Maintained technical interface to export technology security organizations and functions.  |         |         |         |

|   | a the econotary of Bereinee   |                                    | 0.0.0.0 ) = 0 | •       |
|---|---|------------------------------------|---------------|---------|
| Appropriation/Budget Activity<br>0400 / 6   | R-1 Program Element (Number/Name) PE 0605798D8Z I Defense Technology Analysis | <br>ect (Number/<br>I Critical Tec | ,             | ssments |
| B. Accomplishments/Planned Programs (\$ in Millions) - Maintained interface with user community for critical technolo                           | gy assessments.   | FY 2014                            | FY 2015       | FY 2016 |
| FY 2015 Plans: - Maintain technical interface to export technology security orga Maintain interface with user community for critical technology |   |                                    |               |         |

#### FY 2016 Plans:

- Maintain technical interface to export technology security organizations and functions.

Exhibit R-2A, RDT&E Project Justification: PB 2016 Office of the Secretary Of Defense

- Maintain interface with user community for critical technology assessments.

| <b>Accomplishments/Planned Programs Subtotals</b> | 0.902 | 0.603 | 0.800 |
|---|-------|-------|-------|

Date: February 2015

## C. Other Program Funding Summary (\$ in Millions)

N/A

#### Remarks

This effort was realigned from PE 0605110D8Z USD(A&T) Critical Technology Support to PE 0605798D8Z Defense Technology Analysis, P579 Critical Technology Assessments beginning in FY 2014.

# D. Acquisition Strategy

N/A

#### **E. Performance Metrics**

- Currency of the user community of critical technology assessments.

| Exhibit R-2A, RDT&E Project J          | ustification   | : PB 2016 C | Office of the | Secretary (     | Of Defense     |                          |         |         |         | Date: Febr  | uary 2015           |               |
|--|----------------|-------------|---------------|-----------------|----------------|--------------------------|---------|---------|---------|---|---------------------|---------------|
| Appropriation/Budget Activity 0400 / 6 |                |             |               |                 | _              | am Elemen<br>98D8Z / Def | •       | •       |         | <b>t (Number/Name)</b><br>Data Vulnerability Tiger Team |                     |               |
| COST (\$ in Millions)                  | Prior<br>Years | FY 2014     | FY 2015       | FY 2016<br>Base | FY 2016<br>OCO | FY 2016<br>Total         | FY 2017 | FY 2018 | FY 2019 | FY 2020   | Cost To<br>Complete | Total<br>Cost |
| P102: Data Vulnerability Tiger<br>Team | -              | -           | 2.434         | 6.119           | -              | 6.119                    | 12.565  | 13.654  | 14.594  | 14.711  | Continuing          | Continuing    |
| Quantity of RDT&E Articles             | -              | -           | -             | -               | -              | -                        | -       | -       | -       | -   |                     |               |

## A. Mission Description and Budget Item Justification

Most DoD technical information resides on unclassified networks where it is at risk of being targeted for cyber espionage campaigns. Protecting DoD unclassified controlled technical information is a high priority for the Department and is critical to preserving intellectual property and competitive capabilities of our national industrial base. To maintain full confidence in our systems, the Department must also assess the effect the loss of this information has on our warfighting capabilities. DoD contractors who produce or access controlled technical information must incorporate security standards on their networks, and report cyber-intrusion incidents that result in the loss of this information. These requirements are important, but insufficient in the face of a determined adversary. The Department must take steps to understand the impacts of losses and rethink how we safeguard our capabilities. This information, while unclassified, includes data and intellectual property concerning defense systems requirements, concepts of operations, technologies, designs, engineering, systems production and component manufacturing.

This project supports protection of unclassified controlled technical information and analysis of losses to determine consequences and appropriate requirements, acquisition, programmatic, and strategic courses of action.

| B. Accomplishments/Planned Programs (\$ in Millions)  | FY 2014 | FY 2015 | FY 2016 |
|---|---------|---------|---------|
| Title: Data Vulnerability Assessment and Analysis   | -       | 2.434   | 6.119   |
| <b>Description:</b> The Data Vulnerability Assessment and Analysis project will establish a joint analysis capability to conduct comprehensive assessments of controlled unclassified technical information losses, engaging acquisition and intelligence sources to determine consequences and appropriate preventative/mitigation actions.  |         |         |         |
| FY 2015 Plans: Prototype an initial joint analysis concept of operations, and provide support for one to three net loss assessment cases. Each case will consist of an integrated blue and red assessment of compromised controlled unclassified technical information with an end product that contains a comprehensive net assessment of technical data losses for each case. The net assessment will also determine the consequences of losses and implications to directly inform requirements, acquisition, programmatic, and strategic courses of action. Additional protection mechanisms will be provided to inform program protection planning activities for capabilities affected by this loss of information. |         |         |         |
| FY 2016 Plans: Continue development of the joint analysis capability to support net loss assessment. Increase engagement with multiple components of the IC/CI communities to expand data access and protection efforts. The FY 2016 emphasis will be to  |         |         |         |

PE 0605798D8Z: Defense Technology Analysis

| Exhibit R-2A, RDT&E Project Justification: PB 2016 Office of the Secretary 0 |     | Date: February 2015 |   |
|--|-----|---------------------|---|
| 1  | , , | , ,                 | umber/Name)<br>a Vulnerability Tiger Team |

| B. Accomplishments/Planned Programs (\$ in Millions)  | FY 2014 | FY 2015 | FY 2016 |
|---|---------|---------|---------|
| demonstrate the ability of the joint analysis capability to rapidly scale through development of a supporting analytic tool suite which |         |         |         |
| enables responsiveness in compressed timeframes, development of dynamic links with applicable program protection plans, and             |         |         |         |
| delivery of actionable recommendations to appropriate decision makers. The integration of advanced analytic tools, coupled              |         |         |         |
| with identification of additional information feeds/sources of data, continue to further the analytic capability. Scaling the analytic  |         |         |         |
| capability via the tool suite will be accompanied with increased engagement with acquisition and intelligence expertise.                |         |         |         |
| Accomplishments/Planned Programs Subtotals  | -       | 2.434   | 6.119   |

# C. Other Program Funding Summary (\$ in Millions)

N/A

Remarks

# D. Acquisition Strategy

N/A

## E. Performance Metrics

The Data Vulnerability Tiger Team (DVTT) metric is the number of completed cases.