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| Exhibit R-2, RDT&E Budget Item Justification: FY 2018 Air Force   |             |         |         |              |   |               |             |               |              | Date: May 2017 |                  |            |
|---|-------------|---------|---------|--------------|---|---------------|-------------|---------------|--------------|----------------|------------------|------------|
| Appropriation/Budget Activity   |             |         |         |              | R-1 Program Element (Number/Name)           |               |             |               |              |                |                  |            |
| 3600: Research, Development, Test & Evaluation, Air Force I BA 7: Operational Systems Development   |             |         |         |              | PE 1203620F I National Space Defense Center |               |             |               |              |                |                  |            |
| COST (\$ in Millions)   | Prior Years | FY 2016 | FY 2017 | FY 2018 Base | FY 2018 OCO                                 | FY 2018 Total | FY 2019     | FY 2020       | FY 2021      | FY 2022        | Cost To Complete | Total Cost |
| Total Program Element   | -           | 0.000   | 0.000   | 18.052       | 0.000                                       | 18.052        | 12.005      | 0.000         | 0.000        | 0.000          | Continuing       | Continuing |
| 67A035: Enterprise Space BMC2   | -           | 0.000   | 0.000   | 18.052       | 0.000                                       | 18.052        | 12.005      | 0.000         | 0.000        | 0.000          | Continuing       | Continuing |
| Quantity of RDT&E Articles  | -           | -       | -       | -            | -   | -             | -           | -             | -            | -              |                  |            |
| A. Mission Description and Budget Item Justification  |             |         |         |              |   |               |             |               |              |                |                  |            |
| In FY2018, this program element will develop Battle Management and Command and Control (BMC2) applications for the National Space Defense Center (NSDC) (formerly Joint Interagency Combined Space Operations Center (JICSpOC)). In addition, this element will develop hardware and software prototypes to support US Strategic Command Joint Emergent Operational Need (ST-0006) for an Accelerated BMC2 capability. The NSDC allows the national security space community to effectively respond to potential future space threat events and will have the capability to develop, test, and integrate new space system tactics, techniques and procedures (TTPs) in support of both DoD and Intelligence Community operations. |             |         |         |              |   |               |             |               |              |                |                  |            |
| B. Program Change Summary (\$ in Millions)  |             |         |         | FY 2016      | FY 2017                                     | FY 2018 Base  | FY 2018 OCO | FY 2018 Total |              |                |                  |            |
| Previous President's Budget   |             |         |         | 0.000        | 0.000                                       | 0.000         | 0.000       | 0.000         |              |                |                  |            |
| Current President's Budget  |             |         |         | 0.000        | 0.000                                       | 18.052        | 0.000       | 18.052        |              |                |                  |            |
| Total Adjustments   |             |         |         | 0.000        | 0.000                                       | 18.052        | 0.000       | 18.052        |              |                |                  |            |
| • Congressional General Reductions  |             |         |         | 0.000        | 0.000                                       |               |             |               |              |                |                  |            |
| • Congressional Directed Reductions   |             |         |         | 0.000        | 0.000                                       |               |             |               |              |                |                  |            |
| • Congressional Rescissions   |             |         |         | 0.000        | 0.000                                       |               |             |               |              |                |                  |            |
| • Congressional Adds  |             |         |         | 0.000        | 0.000                                       |               |             |               |              |                |                  |            |
| • Congressional Directed Transfers  |             |         |         | 0.000        | 0.000                                       |               |             |               |              |                |                  |            |
| • Reprogrammings  |             |         |         | 0.000        | 0.000                                       |               |             |               |              |                |                  |            |
| • SBIR/STTR Transfer  |             |         |         | 0.000        | 0.000                                       |               |             |               |              |                |                  |            |
| • Other Adjustments   |             |         |         | 0.000        | 0.000                                       | 18.052        | 0.000       | 18.052        |              |                |                  |            |
| Change Summary Explanation  |             |         |         |              |   |               |             |               |              |                |                  |            |
| FY2018: \$18.052M to develop Battle Management and Command and Control (BMC2) applications for the National Space Defense Center (NSDC) (formerly JICSpOC).   |             |         |         |              |   |               |             |               |              |                |                  |            |
| C. Accomplishments/Planned Programs (\$ in Millions)  |             |         |         |              |   |               | FY 2016     | FY 2017       | FY 2018 Base | FY 2018 OCO    | FY 2018 Total    |            |
| Title: BMC2 Applications  |             |         |         |              |   |               | 0.000       | 0.000         | 18.052       | 0.000          | 18.052           |            |

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| <b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> FY 2018 Air Force   |  |  |  | <b>Date:</b> May 2017 |  |
| <b>Appropriation/Budget Activity</b><br>3600: <i>Research, Development, Test &amp; Evaluation, Air Force I BA 7: Operational Systems Development</i> |  |  | <b>R-1 Program Element (Number/Name)</b><br>PE 1203620F / <i>National Space Defense Center</i> |                       |  |

  

|   |                |                |                     |                    |                      |
|---|----------------|----------------|---------------------|--------------------|----------------------|
| <b>C. Accomplishments/Planned Programs (\$ in Millions)</b>   | <b>FY 2016</b> | <b>FY 2017</b> | <b>FY 2018 Base</b> | <b>FY 2018 OCO</b> | <b>FY 2018 Total</b> |
| <b>Description:</b> Develop and field Space Battlement Management and Command and Control capabilities.<br><br><b>FY 2016 Accomplishments:</b><br>NA<br><br><b>FY 2017 Plans:</b><br>NA<br><br><b>FY 2018 Base Plans:</b><br>Continue prototyping efforts to develop tools to fill capability gaps uncovered in experimentation.<br><br><b>FY 2018 OCO Plans:</b><br>NA |                |                |                     |                    |                      |
| <b>Accomplishments/Planned Programs Subtotals</b>   | 0.000          | 0.000          | 18.052              | 0.000              | 18.052               |

  

|   |                |                |                     |                    |                      |                |                |                |                |                         |                   |
|---|----------------|----------------|---------------------|--------------------|----------------------|----------------|----------------|----------------|----------------|-------------------------|-------------------|
| <b>D. Other Program Funding Summary (\$ in Millions)</b>  |                |                |                     |                    |                      |                |                |                |                |                         |                   |
| <u>Line Item</u>  | <u>FY 2016</u> | <u>FY 2017</u> | <u>FY 2018 Base</u> | <u>FY 2018 OCO</u> | <u>FY 2018 Total</u> | <u>FY 2019</u> | <u>FY 2020</u> | <u>FY 2021</u> | <u>FY 2022</u> | <u>Cost To Complete</u> | <u>Total Cost</u> |
| • NA: NA  | 0.000          | 0.000          | 0.000               | 0.000              | 0.000                | 0.000          | 0.000          | 0.000          | 0.000          | 0.00                    | 0.000             |
| <b>Remarks</b>  |                |                |                     |                    |                      |                |                |                |                |                         |                   |
| <b>E. Acquisition Strategy</b><br>The Accelerated Space BMC2 JEON (ST-0006) is led by AFRL/RV and will utilize existing contracts e.g. Space Security and Defense Program (SSDP) and SMC/ SY) and provide funds to other AF/DoD organizations to execute on their contracts. Additionally AFRL/RV will initiate and utilize commercial consortiums to develop capabilities. |                |                |                     |                    |                      |                |                |                |                |                         |                   |
| <b>F. Performance Metrics</b><br>Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.   |                |                |                     |                    |                      |                |                |                |                |                         |                   |

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| Exhibit R-3, RDT&E Project Cost Analysis: FY 2018 Air Force |                        |                                |             |         |            |  |            |              |            |   |            | Date: May 2017 |                  |            |                          |
|---|------------------------|--------------------------------|-------------|---------|------------|--|------------|--------------|------------|---|------------|----------------|------------------|------------|--------------------------|
| Appropriation/Budget Activity<br>3600 / 7                   |                        |                                |             |         |            | R-1 Program Element (Number/Name)<br>PE 1203620F / National Space Defense Center |            |              |            | Project (Number/Name)<br>67A035 / Enterprise Space BMC2 |            |                |                  |            |                          |
| Product Development (\$ in Millions)                        |                        |                                |             | FY 2016 |            | FY 2017  |            | FY 2018 Base |            | FY 2018 OCO   |            | FY 2018 Total  |                  |            |                          |
| Cost Category Item  | Contract Method & Type | Performing Activity & Location | Prior Years | Cost    | Award Date | Cost   | Award Date | Cost         | Award Date | Cost  | Award Date | Cost           | Cost To Complete | Total Cost | Target Value of Contract |
| SYSTEM ENGINEERING  | Various                | Various : Colorado Springs, CO | -           | 0.000   |            | 0.000  |            | 2.000        | Oct 2017   | 0.000   |            | 2.000          | Continuing       | Continuing | -                        |
| BMC2 APPLICATION DEVELOPMENT                                | Various                | Various : Colorado Springs, CO | -           | 0.000   |            | 0.000  |            | 14.000       | Oct 2017   | 0.000   |            | 14.000         | Continuing       | Continuing | -                        |
| Subtotal  |                        |                                | -           | 0.000   |            | 0.000  |            | 16.000       |            | 0.000   |            | 16.000         | -                | -          | -                        |
| Support (\$ in Millions)                                    |                        |                                |             | FY 2016 |            | FY 2017  |            | FY 2018 Base |            | FY 2018 OCO   |            | FY 2018 Total  |                  |            |                          |
| Cost Category Item  | Contract Method & Type | Performing Activity & Location | Prior Years | Cost    | Award Date | Cost   | Award Date | Cost         | Award Date | Cost  | Award Date | Cost           | Cost To Complete | Total Cost | Target Value of Contract |
| Subtotal  |                        |                                | -           | -       |            | -  |            | -            |            | -   |            | -              | -                | -          | -                        |
| Test and Evaluation (\$ in Millions)                        |                        |                                |             | FY 2016 |            | FY 2017  |            | FY 2018 Base |            | FY 2018 OCO   |            | FY 2018 Total  |                  |            |                          |
| Cost Category Item  | Contract Method & Type | Performing Activity & Location | Prior Years | Cost    | Award Date | Cost   | Award Date | Cost         | Award Date | Cost  | Award Date | Cost           | Cost To Complete | Total Cost | Target Value of Contract |
| Subtotal  |                        |                                | -           | -       |            | -  |            | -            |            | -   |            | -              | -                | -          | -                        |
| Management Services (\$ in Millions)                        |                        |                                |             | FY 2016 |            | FY 2017  |            | FY 2018 Base |            | FY 2018 OCO   |            | FY 2018 Total  |                  |            |                          |
| Cost Category Item  | Contract Method & Type | Performing Activity & Location | Prior Years | Cost    | Award Date | Cost   | Award Date | Cost         | Award Date | Cost  | Award Date | Cost           | Cost To Complete | Total Cost | Target Value of Contract |
| A&AS  | Various                | Various : Colorado Springs, CO | -           | 0.000   |            | 0.000  |            | 0.500        | Oct 2017   | 0.000   |            | 0.500          | Continuing       | Continuing | -                        |
| FFRDC   | SS/FP                  | Various : Colorado Springs, CO | -           | 0.000   |            | 0.000  |            | 1.552        | Oct 2017   | 0.000   |            | 1.552          | Continuing       | Continuing | -                        |
| Subtotal  |                        |                                | -           | 0.000   |            | 0.000  |            | 2.052        |            | 0.000   |            | 2.052          | -                | -          | -                        |
|   |                        |                                |             |         |            |  |            |              |            |   |            |                |                  |            |                          |

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| <b>Exhibit R-3, RDT&amp;E Project Cost Analysis: FY 2018 Air Force</b> |                    |                |  |                |  |                     |  |                    |  | <b>Date:</b> May 2017   |                         |                   |                                 |
| <b>Appropriation/Budget Activity</b><br>3600 / 7                       |                    |                |  |                | <b>R-1 Program Element (Number/Name)</b><br>PE 1203620F / <i>National Space Defense Center</i> |                     |  |                    |  | <b>Project (Number/Name)</b><br>67A035 / <i>Enterprise Space BMC2</i> |                         |                   |                                 |
|  | <b>Prior Years</b> | <b>FY 2016</b> |  | <b>FY 2017</b> |  | <b>FY 2018 Base</b> |  | <b>FY 2018 OCO</b> |  | <b>FY 2018 Total</b>  | <b>Cost To Complete</b> | <b>Total Cost</b> | <b>Target Value of Contract</b> |
| <b>Project Cost Totals</b>   | -                  | 0.000          |  | 0.000          |  | 18.052              |  | 0.000              |  | 18.052  | -                       | -                 | -                               |
| <b>Remarks</b>   |                    |                |  |                |  |                     |  |                    |  |   |                         |                   |                                 |

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| Exhibit R-4, RDT&E Schedule Profile: FY 2018 Air Force |  |  |  |  |  |  |  |  |  | Date: May 2017  |  |  |  |
| Appropriation/Budget Activity<br>3600 / 7              |  |  |  |  | R-1 Program Element (Number/Name)<br>PE 1203620F / National Space Defense Center |  |  |  |  | Project (Number/Name)<br>67A035 / Enterprise Space BMC2 |  |  |  |

|                              | FY 2016 |   |   |   | FY 2017 |   |   |   | FY 2018 |   |   |   | FY 2019 |   |   |   | FY 2020 |   |   |   | FY 2021 |   |   |   | FY 2022 |   |   |   |
|------------------------------|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|
|                              | 1       | 2 | 3 | 4 | 1       | 2 | 3 | 4 | 1       | 2 | 3 | 4 | 1       | 2 | 3 | 4 | 1       | 2 | 3 | 4 | 1       | 2 | 3 | 4 | 1       | 2 | 3 | 4 |
| BMC2 APPLICATION DEVELOPMENT |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |

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| Exhibit R-4A, RDT&E Schedule Details: FY 2018 Air Force |  |   | Date: May 2017 |
| Appropriation/Budget Activity<br>3600 / 7               | R-1 Program Element (Number/Name)<br>PE 1203620F / National Space Defense Center | Project (Number/Name)<br>67A035 / Enterprise Space BMC2 |                |

Schedule Details

| Events                       | Start   |      | End     |      |
|------------------------------|---------|------|---------|------|
|                              | Quarter | Year | Quarter | Year |
| BMC2 APPLICATION DEVELOPMENT | 1       | 2017 | 4       | 2019 |