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| Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Defense Information Systems Agency             |             |         |         |              |                                                             |               |         |         |         | Date: February 2015 |                  |            |
|------------------------------------------------------------------------------------------------------|-------------|---------|---------|--------------|-------------------------------------------------------------|---------------|---------|---------|---------|---------------------|------------------|------------|
| Appropriation/Budget Activity                                                                        |             |         |         |              | R-1 Program Element (Number/Name)                           |               |         |         |         |                     |                  |            |
| 0400: Research, Development, Test & Evaluation, Defense-Wide / BA 7: Operational Systems Development |             |         |         |              | PE 0302016K / National Military Command System-Wide Support |               |         |         |         |                     |                  |            |
| COST (\$ in Millions)                                                                                | Prior Years | FY 2014 | FY 2015 | FY 2016 Base | FY 2016 OCO                                                 | FY 2016 Total | FY 2017 | FY 2018 | FY 2019 | FY 2020             | Cost To Complete | Total Cost |
| Total Program Element                                                                                | 4.890       | 0.501   | 0.924   | 0.963        | -                                                           | 0.963         | 0.956   | 0.975   | 0.987   | 0.996               | Continuing       | Continuing |
| S32: NMCS Command Center Engineering                                                                 | 4.890       | 0.501   | 0.924   | 0.963        | -                                                           | 0.963         | 0.956   | 0.975   | 0.987   | 0.996               | Continuing       | Continuing |

**A. Mission Description and Budget Item Justification**

The National Military Command System (NMCS), operated by the Chairman of the Joint Chiefs of Staff, provides the President, Secretary of Defense, and other national senior leaders the ability to maintain situational and operational awareness and command and control of military forces in all crisis and/or national emergency contingencies. DISA's NMCS engineering program meets the NMCS systems engineer responsibilities, per Department of Defense Directive (DoDD) S-5100.44 and Chairman of the Joint Chiefs of Staff Instruction (CJCSI) 3280.01B, to provide the Joint Staff with operationally efficient and cost-effective engineering solutions to ensure that components and facilities satisfy operational requirements including emergency messaging, situational awareness, crisis action, and information management.

The NMCS engineering program is vital in supporting the government's ability to safeguard national security and respond to contingencies globally and/or nuclear war. NMCS engineering focuses on implementing collaborative tools into current and crisis operations areas, integrating adequate back-up storage and recovery of voice, video and data across the continental United States to support key leaders, transitioning nuclear command and control to Internet Protocol based networks, migrating data and voice network to next generation satellites, implementing modern crypto-logical devices, and utilizing wireless networking to support warning systems and situational awareness. In addition, NMCS engineering continues to maintain the NMCS Reference Guide required by DoDD S-5100.44 and to develop engineering and test plans for the installation of hardware and software systems utilized within the NMCS.

|                                                   |                |                |                     |                    |                      |
|---------------------------------------------------|----------------|----------------|---------------------|--------------------|----------------------|
| <b>B. Program Change Summary (\$ in Millions)</b> | <b>FY 2014</b> | <b>FY 2015</b> | <b>FY 2016 Base</b> | <b>FY 2016 OCO</b> | <b>FY 2016 Total</b> |
| Previous President's Budget                       | 0.512          | 0.924          | 0.970               | -                  | 0.970                |
| Current President's Budget                        | 0.501          | 0.924          | 0.963               | -                  | 0.963                |
| Total Adjustments                                 | -0.011         | -              | -0.007              | -                  | -0.007               |
| • Congressional General Reductions                | -              | -              |                     |                    |                      |
| • Congressional Directed Reductions               | -              | -              |                     |                    |                      |
| • Congressional Rescissions                       | -              | -              |                     |                    |                      |
| • Congressional Adds                              | -              | -              |                     |                    |                      |
| • Congressional Directed Transfers                | -              | -              |                     |                    |                      |
| • Reprogrammings                                  | -              | -              |                     |                    |                      |
| • SBIR/STTR Transfer                              | -              | -              |                     |                    |                      |
| • Other Adjustments                               | -0.011         | -              | -0.007              | -                  | -0.007               |

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| Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Defense Information Systems Agency                                                                                                                                    |                                                                                                  | Date: February 2015 |
| Appropriation/Budget Activity<br>0400: Research, Development, Test & Evaluation, Defense-Wide / BA 7:<br>Operational Systems Development                                                                                    | R-1 Program Element (Number/Name)<br>PE 0302016K / National Military Command System-Wide Support |                     |
| <u>Change Summary Explanation</u><br>The FY 2014 decrease of -\$0.011 resulted in the delay of updates to Joint publications.<br><br>The FY 2016 decrease of -\$0.007 is the result of a reduction in non-pay requirements. |                                                                                                  |                     |

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| Exhibit R-2A, RDT&E Project Justification: PB 2016 Defense Information Systems Agency |             |         |         |              |                                                                                                  |               |         |         |                                                                | Date: February 2015 |                  |            |
|---------------------------------------------------------------------------------------|-------------|---------|---------|--------------|--------------------------------------------------------------------------------------------------|---------------|---------|---------|----------------------------------------------------------------|---------------------|------------------|------------|
| Appropriation/Budget Activity<br>0400 / 7                                             |             |         |         |              | R-1 Program Element (Number/Name)<br>PE 0302016K / National Military Command System-Wide Support |               |         |         | Project (Number/Name)<br>S32 / NMCS Command Center Engineering |                     |                  |            |
| COST (\$ in Millions)                                                                 | Prior Years | FY 2014 | FY 2015 | FY 2016 Base | FY 2016 OCO                                                                                      | FY 2016 Total | FY 2017 | FY 2018 | FY 2019                                                        | FY 2020             | Cost To Complete | Total Cost |
| S32: NMCS Command Center Engineering                                                  | 4.890       | 0.501   | 0.924   | 0.963        | -                                                                                                | 0.963         | 0.956   | 0.975   | 0.987                                                          | 0.996               | Continuing       | Continuing |
| Quantity of RDT&E Articles                                                            | -           | -       | -       | -            | -                                                                                                | -             | -       | -       | -                                                              | -                   |                  |            |

**A. Mission Description and Budget Item Justification**

The National Military Command System (NMCS), operated by the Chairman of the Joint Chiefs of Staff, provides the President, Secretary of Defense, and other national senior leaders the ability to maintain situational and operational awareness and command and control of military forces in all crisis and/or national emergency contingencies. DISA's NMCS engineering program meets the NMCS systems engineer responsibilities, per Department of Defense Directive (DoDD) S-5100.44 and Chairman of the Joint Chiefs of Staff Instruction (CJCSI) 3280.01B, to provide the Joint Staff with operationally efficient and cost-effective engineering solutions to ensure that components and facilities satisfy operational requirements including emergency messaging, situational awareness, crisis action, and information management.

The NMCS engineering program is vital in supporting the government's ability to safeguard national security and respond to contingencies globally and/or nuclear war. NMCS engineering focuses on implementation of collaborative tools into current and crisis operations areas, the integration of adequate back-up storage and recovery of voice, video and data across the continental United States to support key leaders, transition of nuclear command and control to Internet Protocol (IP)-based networks, migration of data and voice network to next generation satellites, implementation of modern crypto-logical devices, and the utilization of wireless networking to support warning systems and situational awareness. In addition, NMCS engineering continues to maintain the NMCS Reference Guide (NRG) required by DoDD S-5100.44 and to develop engineering and test plans for the installation of hardware and software systems utilized within the NMCS.

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

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>FY 2014</b> | <b>FY 2015</b> | <b>FY 2016</b> |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------------|----------------|
| <b>Title:</b> NMCS Systems Engineering                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 0.501          | 0.924          | 0.963          |
| <b>FY 2014 Accomplishments:</b><br>Maintained the NRG, PCC Toolkit and the Online Companion Reference for the CJCSI 3280.01M. Implemented a new missile warning system across the PCC's and modernized and consolidated NMCS systems. Conducted inspections of HEMP network sites.                                                                                                                                                                                                                                                                                                |                |                |                |
| <b>FY 2015 Plans:</b><br>Will maintain the PCC Toolkit and the Online Companion Reference. Modernize and integrate NMCS capabilities (e.g., transmission platforms, data interfaces, security and graphical user interfaces). Will also integrate NMCS with other senior leadership and continuity command, control and communication (C3) systems that constitute the National Leadership Command Capability (NLCC). These efforts also support the Joint Systems Engineering and Integration Office (JSEIO) mission and improve situational monitoring systems across the PCCs. |                |                |                |

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| <b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Information Systems Agency |                                                                                                                | <b>Date:</b> February 2015                                                   |
| <b>Appropriation/Budget Activity</b><br>0400 / 7                                                 | <b>R-1 Program Element (Number/Name)</b><br>PE 0302016K / <i>National Military Command System-Wide Support</i> | <b>Project (Number/Name)</b><br>S32 / <i>NMCS Command Center Engineering</i> |

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

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <b>FY 2014</b> | <b>FY 2015</b> | <b>FY 2016</b> |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------------|----------------|
| The increase of +\$0.423 from FY 2014 to FY 2015 will significantly expand the engineering efforts to integrate NMCS systems into the NLCC.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                |                |                |
| <b><i>FY 2016 Plans:</i></b><br>Will maintain the NRG and the PCC Toolkit to ensure expanded collaboration and information sharing. Update, automate and maintain the Online Companion Reference for the CJCSI 3280.01M which is critical to ongoing operations. Provide technical evaluations and strategies for implementing Nuclear Command and Control over IP into other National Leadership Command Capability (NLCC) enabling programs. Support engineering requirements and continue in identifying technical solutions to integrate NMCS with other senior leadership and continuity command, control and communication (C3) systems that constitute the NLCC. Focus on implementing collaborative tools into current and crisis operations areas, integrate adequate back-up storage and recovery of voice, video and data to support key leaders and migrate data and voice networks to next generation satellites. |                |                |                |
| The increase of +\$0.039 from FY 2015 to FY 2016 addresses data integration and engineering activities required to deliver enterprise level solutions to meet NMCS priorities.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                |                |                |
| <b>Accomplishments/Planned Programs Subtotals</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 0.501          | 0.924          | 0.963          |

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

| <b>Line Item</b>  | <b>FY 2014</b> | <b>FY 2015</b> | <b>FY 2016<br/>Base</b> | <b>FY 2016<br/>OCO</b> | <b>FY 2016<br/>Total</b> | <b>FY 2017</b> | <b>FY 2018</b> | <b>FY 2019</b> | <b>FY 2020</b> | <b>Cost To<br/>Complete</b> | <b>Total Cost</b> |
|-------------------|----------------|----------------|-------------------------|------------------------|--------------------------|----------------|----------------|----------------|----------------|-----------------------------|-------------------|
| • O&M, DW/PE      | 3.568          | 3.618          | 3.398                   | -                      | 3.398                    | 3.393          | 3.417          | 3.410          | 3.444          | Continuing                  | Continuing        |
| 0302016K: O&M, DW |                |                |                         |                        |                          |                |                |                |                |                             |                   |

**Remarks**

**D. Acquisition Strategy**

Full and open competition resulted in a contract with Raytheon, Arlington, VA.

**E. Performance Metrics**

The NMCS Engineering Branch conducts regularly scheduled In-progress Program Reviews (IPRs) and Configuration Control Board (CCB) meetings to monitor status of engineering projects/tasks. Each current project/task is evaluated in terms of how well the technical work is progressing and how allocated resources are being utilized. Adjustments to resources, schedules, and technical directions are made, as required. Future projects/tasks are also discussed, thereby ensuring an integrated approach is maintained across all related project/task areas. To further increase the utility of the IPR/CCB structure, the Joint Staff customer participates in the project/task reviews. The result of this approach is a truly integrated effort of NMCS Engineering, contractor, and Joint Staff working together to achieve common program goals. Suitable products are delivered within allocated resources and delivered on schedule 90% of the time.

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| Exhibit R-2A, RDT&E Project Justification: PB 2016 Defense Information Systems Agency                                                                                                             |                                                                                                  | Date: February 2015                                            |
| Appropriation/Budget Activity<br>0400 / 7                                                                                                                                                         | R-1 Program Element (Number/Name)<br>PE 0302016K / National Military Command System-Wide Support | Project (Number/Name)<br>S32 / NMCS Command Center Engineering |
| The NMCS met all FY 2014 performance metrics and is on track to meet its FY 2015 and FY 2016 metrics by delivering suitable products on schedule and within allocated resources 100% of the time. |                                                                                                  |                                                                |

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|-------------------------------------------------------------------------------------------------|--|--|--|--|--|----------------------------------------------------------------------------------------------------------------|--|--|--|--|--|------------------------------------------------------------------------------|--|--|--|
| <b>Exhibit R-3, RDT&amp;E Project Cost Analysis:</b> PB 2016 Defense Information Systems Agency |  |  |  |  |  |                                                                                                                |  |  |  |  |  | <b>Date:</b> February 2015                                                   |  |  |  |
| <b>Appropriation/Budget Activity</b><br>0400 / 7                                                |  |  |  |  |  | <b>R-1 Program Element (Number/Name)</b><br>PE 0302016K / <i>National Military Command System-Wide Support</i> |  |  |  |  |  | <b>Project (Number/Name)</b><br>S32 / <i>NMCS Command Center Engineering</i> |  |  |  |

  

| Support (\$ in Millions)  |                        |                                   |             | FY 2014 |            | FY 2015 |            | FY 2016 Base |            | FY 2016 OCO |            | FY 2016 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 |
| Engineering/Tech Services | C/CPFF                 | Raytheon E-Sys :<br>Arlington, VA | 4.890       | 0.501   | May 2014   | 0.924   | Jan 2015   | 0.963        | Jan 2016   | -           |            | 0.963         | Continuing       | Continuing | 5.525                    |
| <b>Subtotal</b>           |                        |                                   | 4.890       | 0.501   |            | 0.924   |            | 0.963        |            | -           |            | 0.963         | -                | -          | 5.525                    |

  

|                            | Prior Years | FY 2014 | FY 2015 | FY 2016 Base | FY 2016 OCO | FY 2016 Total | Cost To Complete | Total Cost | Target Value of Contract |
|----------------------------|-------------|---------|---------|--------------|-------------|---------------|------------------|------------|--------------------------|
| <b>Project Cost Totals</b> | 4.890       | 0.501   | 0.924   | 0.963        | -           | 0.963         | -                | -          | 5.525                    |

  

**Remarks**

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|                                                                                            |                                                                                                                |                                                                              |                            |
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| <b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2016 Defense Information Systems Agency |                                                                                                                |                                                                              | <b>Date:</b> February 2015 |
| <b>Appropriation/Budget Activity</b><br>0400 / 7                                           | <b>R-1 Program Element (Number/Name)</b><br>PE 0302016K / <i>National Military Command System-Wide Support</i> | <b>Project (Number/Name)</b><br>S32 / <i>NMCS Command Center Engineering</i> |                            |

|                                                                | FY 2014 |   |   |   | FY 2015 |   |   |   | FY 2016 |   |   |   | FY 2017 |   |   |   | FY 2018 |   |   |   | FY 2019 |   |   |   | FY 2020 |   |   |   |
|----------------------------------------------------------------|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|
|                                                                | 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 |
| <b>NMCS</b>                                                    |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |
| Maintenance/Update of NMCS Reference Guide (ongoing/real-time) |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |
| Maintenance/Update of the PCC Toolkit                          |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |
| Completion of Study: NC2 over IP                               |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |
| Completion of SHF Upgrade                                      |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |
| Inspection/Maintenance of HEMP sites in the NCR                |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |
| Modernize Non-Secure Conferencing Networks                     |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |
| Implement PCC Dashboard                                        |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |
| Milstar Cryptological Modernization                            |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |         |   |   |   |

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| <b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2016 Defense Information Systems Agency |                                                                                                                |                                                                              | <b>Date:</b> February 2015 |
| <b>Appropriation/Budget Activity</b><br>0400 / 7                                            | <b>R-1 Program Element (Number/Name)</b><br>PE 0302016K / <i>National Military Command System-Wide Support</i> | <b>Project (Number/Name)</b><br>S32 / <i>NMCS Command Center Engineering</i> |                            |

Schedule Details

| Events by Sub Project                                          | Start   |      | End     |      |
|----------------------------------------------------------------|---------|------|---------|------|
|                                                                | Quarter | Year | Quarter | Year |
| <b>NMCS</b>                                                    |         |      |         |      |
| Maintenance/Update of NMCS Reference Guide (ongoing/real-time) | 1       | 2014 | 4       | 2019 |
| Maintenance/Update of the PCC Toolkit                          | 1       | 2014 | 2       | 2018 |
| Completion of Study: NC2 over IP                               | 1       | 2014 | 2       | 2015 |
| Completion of SHF Upgrade                                      | 1       | 2014 | 1       | 2015 |
| Inspection/Maintenance of HEMP sites in the NCR                | 1       | 2014 | 4       | 2018 |
| Modernize Non-Secure Conferencing Networks                     | 1       | 2014 | 1       | 2016 |
| Implement PCC Dashboard                                        | 1       | 2014 | 1       | 2016 |
| Milstar Cryptological Modernization                            | 1       | 2014 | 4       | 2015 |