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| Exhibit R-2, RDT&E Budget Item Justification: PB 2020 Army | Date: March 2019 |
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| Appropriation/Budget Activity 2040: <i>Research, Development, Test & Evaluation, Army / BA 4: Advanced Component Development & Prototypes (ACD&P)</i> | | | | | R-1 Program Element (Number/Name) PE 0604785A / <i>Integrated Base Defense (Budget Activity 4)</i> | | | | | | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|----------------|----------------|---------------------|--------------------------------------------------------------------------------------------------------------|----------------------|----------------|----------------|----------------|----------------|-------------------------|-------------------|
| COST (\$ in Millions) | Prior Years | FY 2018 | FY 2019 | FY 2020 Base | FY 2020 OCO | FY 2020 Total | FY 2021 | FY 2022 | FY 2023 | FY 2024 | Cost To Complete | Total Cost |
| Total Program Element | - | 0.000 | 0.000 | 0.000 | 2.000 | 2.000 | 2.020 | 2.040 | 2.040 | 2.081 | 0.000 | 10.181 |
| DS4: <i>Integrated Base Defense</i> | - | 0.000 | 0.000 | 0.000 | 2.000 | 2.000 | 2.020 | 2.040 | 2.040 | 2.081 | 0.000 | 10.181 |

A. Mission Description and Budget Item Justification

Integrated Base Defense (IBD) provides integration of software and analytical capability to support the integration of systems in the field. IBD employs an enterprise approach to enable IBD capabilities across the operational spectrum by leveraging interoperability efforts in support of the Integrated Unit, Base, and Installation Protection framework focused on system engineering and software development.

Counter Vehicle Borne Improvised Explosive Device (CVBIED) is an integrated suite of systems developed in response to CENTCOM JUONS CC-0540. CVBIED provides an early VBIED detection capability prior to vehicles reaching entry into Forward Operating Bases. Additional sensor systems are being integrated into the current Force Protection infrastructure as part of CVBIED.

Counter Vehicle Borne Improvised Explosive Device (CVBIED) is not a new start, the program was moved from Program Element 0605033A in FY18 and 0205402A in FY19.

Request for FY2020 OCO is \$2.000M to support continued integration of CVBIED technologies into the current Force Protection infrastructure to address capabilities gaps within JUONS CC-0540.

| B. Program Change Summary (\$ in Millions) | FY 2018 | FY 2019 | FY 2020 Base | FY 2020 OCO | FY 2020 Total |
|---------------------------------------------------|----------------|----------------|---------------------|--------------------|----------------------|
| Previous President's Budget | 0.000 | 0.000 | 0.000 | - | 0.000 |
| Current President's Budget | 0.000 | 0.000 | 0.000 | 2.000 | 2.000 |
| Total Adjustments | 0.000 | 0.000 | 0.000 | 2.000 | 2.000 |
| • Congressional General Reductions | - | - | | | |
| • Congressional Directed Reductions | - | - | | | |
| • Congressional Rescissions | - | - | | | |
| • Congressional Adds | - | - | | | |
| • Congressional Directed Transfers | - | - | | | |
| • Reprogrammings | - | - | | | |
| • SBIR/STTR Transfer | - | - | | | |
| • Adjustments to Budget Years | - | - | 0.000 | 2.000 | 2.000 |

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| Exhibit R-2, RDT&E Budget Item Justification: PB 2020 Army | | Date: March 2019 |
| Appropriation/Budget Activity 2040: Research, Development, Test & Evaluation, Army / BA 4: Advanced Component Development & Prototypes (ACD&P) | R-1 Program Element (Number/Name) PE 0604785A / Integrated Base Defense (Budget Activity 4) | |
| <u>Change Summary Explanation</u> Counter Vehicle Borne Improvised Explosive Device (CVBIED) is not a new start, the program was moved from Program Element 0605033A in FY18 and 0205402A in FY19. | | |

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| Exhibit R-2A, RDT&E Project Justification: PB 2020 Army | | | | | | | | | | Date: March 2019 | | |
| Appropriation/Budget Activity 2040 / 4 | | | | | R-1 Program Element (Number/Name) PE 0604785A / Integrated Base Defense (Budget Activity 4) | | | | Project (Number/Name) DS4 / Integrated Base Defense | | | |
| COST (\$ in Millions) | Prior Years | FY 2018 | FY 2019 | FY 2020 Base | FY 2020 OCO | FY 2020 Total | FY 2021 | FY 2022 | FY 2023 | FY 2024 | Cost To Complete | Total Cost |
| DS4: Integrated Base Defense | - | 0.000 | 0.000 | 0.000 | 2.000 | 2.000 | 2.020 | 2.040 | 2.040 | 2.081 | 0.000 | 10.181 |
| Quantity of RDT&E Articles | - | - | - | - | - | - | - | - | - | - | | |
| Note | | | | | | | | | | | | |
| Counter Vehicle Borne Improvised Explosive Device (CVBIED) is not a new start, the program was moved from Program Element 0605033A in FY18 and 0205402A in FY19. | | | | | | | | | | | | |
| A. Mission Description and Budget Item Justification | | | | | | | | | | | | |
| Integrated Base Defense (IBD) provides integration of software and analytical capability to support the integration of systems in the field. IBD employs an enterprise approach to enable IBD capabilities across the operational spectrum by leveraging interoperability efforts in support of the Integrated Unit, Base, and Installation Protection framework focused on system engineering and software development. | | | | | | | | | | | | |
| Counter Vehicle Borne Improvised Explosive Device (CVBIED) is an integrated suite of systems developed in response to CENTCOM JUONS CC-0540. CVBIED provides an early VBIED detection capability prior to vehicles reaching entry into Forward Operating Bases. Additional sensor systems are being integrated into the current Force Protection infrastructure as part of CVBIED. | | | | | | | | | | | | |
| Request for FY2020 OCO is \$2.000M to support continued integration of CVBIED technologies into the current Force Protection infrastructure to address capabilities gaps within JUONS CC-0540. | | | | | | | | | | | | |
| B. Accomplishments/Planned Programs (\$ in Millions) | | | | | | | | FY 2018 | FY 2019 | FY 2020 Base | FY 2020 OCO | FY 2020 Total |
| Title: CVBIED Design and Build | | | | | | | | - | - | 0.000 | 2.000 | 2.000 |
| Description: Effort continues the design and integration of CVBIED technologies into the current Force Protection infrastructure to address capabilities gaps within JUONS CC-0540 | | | | | | | | | | | | |
| FY 2020 Base Plans: Funding support continued integration of CVBIED technologies into the current Force Protection infrastructure to address capabilities gaps within JUONS CC-0540. | | | | | | | | | | | | |
| FY 2020 OCO Plans: Funding support continued integration of CVBIED technologies into the current Force Protection infrastructure to address capabilities gaps within JUONS CC-0540. | | | | | | | | | | | | |
| FY 2019 to FY 2020 Increase/Decrease Statement: | | | | | | | | | | | | |

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| Exhibit R-2A, RDT&E Project Justification: PB 2020 Army | | | | | | | Date: March 2019 | | | | |
| Appropriation/Budget Activity 2040 / 4 | | | | R-1 Program Element (Number/Name) PE 0604785A / <i>Integrated Base Defense</i> (Budget Activity 4) | | | Project (Number/Name) DS4 / <i>Integrated Base Defense</i> | | | | |
| B. Accomplishments/Planned Programs (\$ in Millions) | | | | | | | FY 2018 | FY 2019 | FY 2020 Base | FY 2020 OCO | FY 2020 Total |
| The Counter Vehicle Borne Improvised Explosive Device (CVBIED) program was funded in Program Element 0605033A in FY18 and Program Element 0205402A EF2 in FY19. | | | | | | | | | | | |
| Accomplishments/Planned Programs Subtotals | | | | | | | - | - | 0.000 | 2.000 | 2.000 |
| C. Other Program Funding Summary (\$ in Millions) | | | | | | | | | | | |
| Line Item | FY 2018 | FY 2019 | FY 2020 Base | FY 2020 OCO | FY 2020 Total | FY 2021 | FY 2022 | FY 2023 | FY 2024 | Cost To Complete | Total Cost |
| • 0205402A: <i>Integrated Base Defense - Operational System Dev</i> | - | 8.000 | 0.000 | - | 0.000 | - | - | - | - | 0.000 | 8.000 |
| • 0605033A: <i>Ground-Based Operational Surveillance System - Expeditionary (GBOSS-E)</i> | 20.661 | 5.169 | 3.847 | - | 3.847 | 5.981 | - | - | - | 0.000 | 35.658 |
| Remarks | | | | | | | | | | | |
| D. Acquisition Strategy | | | | | | | | | | | |
| The IBD acquisition strategy is to leverage existing IBD-related government organizations and to competitively award multiple contracts in support of IBD objectives for the development of holistic IBD architectures and products to support interoperability of fielded and emerging IBD-related systems. JUONS CC-0540 (CVBIED) equipment is comprised of a combination of Commercial and Government Off the Shelf items integrated to meet the requirements of JUONS CC-0540 (CVBIED). | | | | | | | | | | | |
| E. Performance Metrics | | | | | | | | | | | |
| N/A | | | | | | | | | | | |

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| Exhibit R-3, RDT&E Project Cost Analysis: PB 2020 Army | | | | | | | | | | | | | Date: March 2019 | | |
| Appropriation/Budget Activity 2040 / 4 | | | | | | | R-1 Program Element (Number/Name) PE 0604785A / <i>Integrated Base Defense</i> (Budget Activity 4) | | | | | Project (Number/Name) DS4 / <i>Integrated Base Defense</i> | | | |

| Product Development (\$ in Millions) | | | | FY 2018 | | FY 2019 | | FY 2020 Base | | FY 2020 OCO | | FY 2020 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 |
| JUONS CC-0540 System Integration | MIPR | AMRDEC : Huntsville, AL | - | - | | - | | 0.000 | | 0.379 | Jan 2020 | 0.379 | Continuing | Continuing | Continuing |
| JUONS CC-0540 Hyper spectral Sensor Development Support | MIPR | RDECOM CERDEC : Fort Belvoir, VA | - | - | | - | | 0.000 | | 0.203 | Jan 2020 | 0.203 | Continuing | Continuing | Continuing |
| JUONS CC-0540 Wide Area Motion Imagery Sensor Development | MIPR | NAVAIR : Patuxent River, MD | - | - | | - | | 0.000 | | 0.608 | Jan 2020 | 0.608 | Continuing | Continuing | Continuing |
| Subtotal | | | - | - | | - | | 0.000 | | 1.190 | | 1.190 | Continuing | Continuing | N/A |

| Test and Evaluation (\$ in Millions) | | | | FY 2018 | | FY 2019 | | FY 2020 Base | | FY 2020 OCO | | FY 2020 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 |
| Test and Evaluation | MIPR | ATEC : Aberdeen Proving Ground, MD | - | - | | - | | 0.000 | | 0.810 | Jan 2020 | 0.810 | Continuing | Continuing | Continuing |
| Subtotal | | | - | - | | - | | 0.000 | | 0.810 | | 0.810 | Continuing | Continuing | N/A |

| | | | Prior Years | FY 2018 | | FY 2019 | | FY 2020 Base | | FY 2020 OCO | | FY 2020 Total | Cost To Complete | Total Cost | Target Value of Contract |
|----------------------------|--|--|--------------------|----------------|--|----------------|--|---------------------|--|--------------------|--|----------------------|-------------------------|-------------------|---------------------------------|
| Project Cost Totals | | | - | - | | 0.000 | | 0.000 | | 2.000 | | 2.000 | Continuing | Continuing | N/A |

Remarks

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|---------------------------------------------------|---------|---|---|---|---------|---|---|---|-----------------------------------|---------------------------------------------------------------------------------------------------|---|---|---------|---|---|------------------|---------|--------------------------------------------------------|---|---|---------|---|---|---|---------|---|---|---|
| Exhibit R-4, RDT&E Schedule Profile: PB 2020 Army | | | | | | | | | | | | | | | | Date: March 2019 | | | | | | | | | | | | |
| Appropriation/Budget Activity 2040 / 4 | | | | | | | | | | R-1 Program Element (Number/Name) PE 0604785A / Integrated Base Defense (Budget Activity 4) | | | | | | | | Project (Number/Name) DS4 / Integrated Base Defense | | | | | | | | | | |
| Event Name | FY 2018 | | | | FY 2019 | | | | FY 2020 | | | | FY 2021 | | | | FY 2022 | | | | FY 2023 | | | | FY 2024 | | | |
| | 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 |
| Development, Test and Integration | | | | | | | | | Development, Test and Integration | | | | | | | | | | | | | | | | | | | |
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| Exhibit R-4A, RDT&E Schedule Details: PB 2020 Army | | Date: March 2019 |
| Appropriation/Budget Activity 2040 / 4 | R-1 Program Element (Number/Name) PE 0604785A / Integrated Base Defense (Budget Activity 4) | Project (Number/Name) DS4 / Integrated Base Defense |

Schedule Details

| Events | Start | | End | |
|-----------------------------------|---------|------|---------|------|
| | Quarter | Year | Quarter | Year |
| Development, Test and Integration | 1 | 2020 | 2 | 2022 |