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Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Air Force **Date:** February 2016

| | |
|---|--|
| Appropriation/Budget Activity 3600: <i>Research, Development, Test & Evaluation, Air Force I BA 5: System Development & Demonstration (SDD)</i> | R-1 Program Element (Number/Name) PE 0604287F / <i>Physical Security Equipment</i> |
|---|--|

| COST (\$ in Millions) | Prior Years | FY 2015 | FY 2016 | FY 2017 Base | FY 2017 OCO | FY 2017 Total | FY 2018 | FY 2019 | FY 2020 | FY 2021 | Cost To Complete | Total Cost |
|--|-------------|---------|---------|--------------|-------------|---------------|---------|---------|---------|---------|------------------|------------|
| Total Program Element | - | 3.926 | 5.973 | 8.458 | 0.000 | 8.458 | 9.212 | 9.488 | 9.769 | 10.141 | Continuing | Continuing |
| 655120: <i>Physical Security Equipment - SD ED</i> | - | 3.926 | 5.973 | 8.458 | 0.000 | 8.458 | 9.212 | 9.488 | 9.769 | 10.141 | Continuing | Continuing |
| Quantity of RDT&E Articles | - | - | - | - | - | - | - | - | - | - | | |

Note

In FY15, PE 0604287F, Physical Security Equipment, Project Number 655120, Physical Security Equipment SD ED efforts were transferred from PE 0603287F, Physical Security Equipment, Project Number 645121, in order to align funding in the correct Budget Activity (BA05).

A. Mission Description and Budget Item Justification

Integrated Base Defense Security Systems (IBDSS) provides improvements and enhancements, demonstrates, and tests Physical Security Equipment (PSE) systems to include Force Protection. This program supports the protection of tactical, fixed, and nuclear weapons systems, AF personnel and AF facilities. The PSE program is organized to provide PSE RDT&E for Air Force specific needs but as a complement to, and in conjunction with, the PSE RDT&E programs funded by the DOD Physical Security Enterprise and Analysis Group (PSEAG). As such this program will obtain, demonstrate, and test PSE in the same manner and to the same standards and architecture as PSEAG-funded projects to ensure interoperability with PSEAG-developed PSE. In support of PSE, this RDT&E program includes spectrum planning for radio frequency (RF), communication security (cyber), and information assurance requirements. This Program Element also includes funding for Force Protection Commercial Off The Shelf (FP COTS) market research, evaluation and testing. The FP COTS testing applies to all available technologies (delay, denial, detection, assessment, communication display, access control, power, mobility, and defeat effects) which are considered effective for AF physical security use. This program supports the maintenance and test support at Site C 3 and the Cold Weather Test Site (CWTS), as annotated in DoD Directive 3200.11, listing the 46th Test Wing (TW) as a Major Range and Test facility, conducting developmental and operational testing as the primary mission.

This program is in Budget Activity 5, System Development and Demonstration (SDD) because it has passed Milestone B approval and is conducting engineering and manufacturing development tasks aimed at meeting validated requirements prior to full rate production.

UNCLASSIFIED

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|--|----------------------------|

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| B. Program Change Summary (\$ in Millions) | FY 2015 | FY 2016 | FY 2017 Base | FY 2017 OCO | FY 2017 Total |
|---|----------------|----------------|---------------------|--------------------|----------------------|
| Previous President's Budget | 3.926 | 5.973 | 4.122 | 0.000 | 4.122 |
| Current President's Budget | 3.926 | 5.973 | 8.458 | 0.000 | 8.458 |
| Total Adjustments | 0.000 | 0.000 | 4.336 | 0.000 | 4.336 |
| • 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 | 4.336 | 0.000 | 4.336 |

Change Summary Explanation

The FY17 funding increase of \$4.4M is to support Physical Security Equipment RDT&E.

| C. Accomplishments/Planned Programs (\$ in Millions) | FY 2015 | FY 2016 | FY 2017 |
|---|----------------|----------------|----------------|
| Title: Integrated Base Defense Security Systems (IBDSS) | 3.926 | 5.973 | 8.458 |
| Description: IBDSS qualifies, demonstrates, and tests Physical Security Equipment (PSE) systems to include Force Protection. This continuing effort was previously named Physical Security Equipment. | | | |
| FY 2015 Accomplishments: | | | |
| Continue Force Protection Commercial Off The Shelf (COTS) market research, evaluation and testing to address capability gaps and obsolescence. This includes integration and testing to qualify COTS equipment to provide essential upgrades/improvements and state-of-the art technology to support integrated based security systems installations worldwide. Type of technologies includes delay/ denial/detection/assessment/communication display/access control/power equipment & systems for IBDSS projects. | | | |
| Also continuing previously developed or modified COTS efforts to improve IBDSS physical security equipment: | | | |
| - Continue Tactical Automated Security System (TASS)(also known as Tactical Security System) efforts including improvements to the annunciator. | | | |
| - Develop internal & external delay, denial, and detection options for the Nuclear Storage environment. | | | |
| - Delay advancements include semi-hardened transport containers for logistic movement of nuclear assets. | | | |
| - Denial advancement includes prototypes for denial capability within protective aircraft shelters. | | | |
| - Denial capability integration to improve life cycle cost and effectiveness for the Remote Target Engagement System (RTES) | | | |

UNCLASSIFIED

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|---|--|

| C. Accomplishments/Planned Programs (\$ in Millions) | FY 2015 | FY 2016 | FY 2017 |
|--|----------------|----------------|----------------|
| <ul style="list-style-type: none"> - Conduct RTES Independent Validation and Verification (IV&V) and safety reviews with NNMSB and applicable safety agencies to assure OSS&E of developed systems - Analyses and maturity assessment of interruption methods to disable or mitigate adversary remote airborne platforms. - Conduct IV&V of fielded PSE and integrated systems - Continue to research technological advances with other agencies and industry. - Conduct analyses to include the adversary needs assessment and System Effectiveness Assessment (SEA) of the Nuclear Environment. - Qualify Physical Security Alarm Systems; identify, integrate and evaluate fusion and display capability to improve command, control and communication to include fusion of disparate sensor technologies and threat indicators; improve situational awareness and increase the decision support provided to security system operators through a Common Operational Picture or an enhancement to established alarm display capability; planned environments are in the missile field and for weapons storage where Base Defense Operations Center aggregates threat, sensor alarms, video and thermal assessment for developing response plans and priorities. - Support the maintenance and test support at Site C-3 and the Cold Weather Test Site (CWTS), as annotated in DoD Directive 3200.11, listing the 46TW as a Major Range and Test facility, conducting developmental and operational testing as the primary mission. <p>FY 2016 Plans: Will continue Force Protection Commercial Off The Shelf (COTS) market research, evaluation and testing to address capability gaps and obsolescence. This includes integration and testing to qualify COTS equipment to provide essential upgrades/improvements and state-of the art technology to support integrated based security systems installations worldwide. Type of technologies includes delay/denial/detection/assessment/communication display/access control/power equipment & systems for IBDSS projects.</p> <p>Will continue previously developed or modified COTS efforts to improve IBDSS physical security equipment:</p> <ul style="list-style-type: none"> - Continue Tactical Automated Security System (TASS)efforts including improvements to the annunciator. - Develop internal & external delay, denial, and detection options for the Nuclear Storage environment. - Delay advancements include semi-hardened transport containers for logistic movement of nuclear assets. - Denial advancement includes prototypes for denial capability within protective aircraft shelters. - Denial capability integration to improve life cycle cost and effectiveness for the Remote Target Engagement System (RTES) - Conduct RTES Independent Validation and Verification (IV&V) and safety reviews with NNMSB and applicable safety agencies to assure OSS&E of developed systems - Analyses and maturity assessment of interruption methods to disable or mitigate adversary remote airborne platforms. | | | |

UNCLASSIFIED

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|--|--|

| C. Accomplishments/Planned Programs (\$ in Millions) | FY 2015 | FY 2016 | FY 2017 |
|---|----------------|----------------|----------------|
| <ul style="list-style-type: none"> - Conduct IV&V of fielded PSE and integrated systems - Continue to research technological advances with other agencies and with industry. - Conduct analyses to include the adversary needs assessment and System Effectiveness Assessment (SEA) of the Nuclear Environment. - Qualify Physical Security Alarm Systems; identify, integrate and evaluate fusion and display capability to improve command, control and communication to include fusion of disparate sensor technologies and threat indicators; improve situational awareness and increase the decision support provided to security system operators through a Common Operational Picture or an enhancement to established alarm display capability; planned environments are in the missile field and for weapons storage where Base Defense Operations Center aggregates threat, sensor alarms, video and thermal assessment for developing response plans and priorities. - Support the maintenance and test support at Site C-3 and the Cold Weather Test Site (CWTS), as annotated in DoD Directive 3200.11, listing the 46TW as a Major Range and Test facility, conducting developmental and operational testing as the primary mission. <p>FY 2017 Plans: Will continue Force Protection Commercial Off The Shelf (COTS) market research, evaluation and testing to address capability gaps and obsolescence. This includes integration and testing to qualify COTS equipment to provide essential upgrades/ improvements and state-of the art technology to support integrated based security systems installations worldwide. Type of technologies includes delay/denial/detection/assessment/communication display/access control/power equipment & systems for IBDSS projects.</p> <p>Will continue previously developed or modified COTS efforts to improve IBDSS physical security equipment:</p> <ul style="list-style-type: none"> - Continue Tactical Automated Security System (TASS)(also known as Tactical Security System) efforts including improvements to the annunciator. - Develop internal & external delay, denial, and detection options for the Nuclear Storage environment. - Delay advancements include semi-hardened transport containers for logistic movement of nuclear assets. - Denial advancement includes prototypes for denial capability within protective aircraft shelters. - Denial capability integration to improve life cycle cost and effectiveness for the Remote Target Engagement System (RTES) - Conduct RTES Independent Validation and Verification (IV&V) and safety reviews with NNMSB and applicable safety agencies to assure OSS&E of developed systems - Analyses and maturity assessment of interruption methods to disable or mitigate adversary remote airborne platforms. - Conduct IV&V of fielded PSE and integrated systems. - Continue to research technological advances with other agencies and with industry. | | | |

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|--|----------------------------|

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|---|--|

| C. Accomplishments/Planned Programs (\$ in Millions) | FY 2015 | FY 2016 | FY 2017 |
|---|----------------|----------------|----------------|
| <ul style="list-style-type: none"> - Conduct analyses to include the adversary needs assessment and System Effectiveness Assessment (SEA) of the Nuclear Environment. - Qualify Physical Security Alarm Systems; identify, integrate and evaluate fusion and display capability to improve command, control and communication to include fusion of disparate sensor technologies and threat indicators; improve situational awareness and increase the decision support provided to security system operators through a Common Operational Picture or an enhancement to established alarm display capability; planned environments are in the missile field and for weapons storage where Base Defense Operations Center aggregates threat, sensor alarms, video and thermal assessment for developing response plans and priorities. - FY17 Plans: Add/Develop automation tools for inventory management, documenting equipment status, and documenting equipment operator qualifications. Develop mobile platforms compatible access to the automation tools, allowing real-time status updates. - FY18 Plans: Continue development and refinement of automation tools for inventory management, documenting equipment status, and documenting equipment operator qualifications. Expand mobile platforms access to the automation tools allowing real-time status updates. - Support the maintenance and test support at Site C-3 and the Cold Weather Test Site (CWTS), as annotated in DoD Directive 3200.11, listing the 46TW as a Major Range and Test facility, conducting developmental and operational testing as the primary mission. | | | |
| Accomplishments/Planned Programs Subtotals | 3.926 | 5.973 | 8.458 |

| D. Other Program Funding Summary (\$ in Millions) | | | | | | | | | | | |
|--|----------------|----------------|-------------------------|------------------------|--------------------------|----------------|----------------|----------------|----------------|-----------------------------|-------------------|
| Line Item | FY 2015 | FY 2016 | FY 2017 Base | FY 2017 OCO | FY 2017 Total | FY 2018 | FY 2019 | FY 2020 | FY 2021 | Cost To Complete | Total Cost |
| • OPAF: BA03: Line Item #28: <i>Air Force Physical Security System</i> | 26.157 | 75.849 | 84.482 | 0.000 | 84.482 | 53.768 | 79.674 | 75.650 | 49.740 | Continuing | Continuing |

Remarks

E. Acquisition Strategy
 COTS sub-systems, equipment and components are competitively acquired from industry after thorough market research. Equipment for testing is purchased via competitive selection processes via direct purchase orders. For security systems COTS that are required to be qualified for nuclear security environments where industry COTS sources may not be mature, consideration is given to replacement of new items or modification of COTS through the competitive selection procedure as well.

 Delivery Orders on Indefinite Delivery/Indefinite Quantity contract vehicles or other approved purchase methods are utilized to acquire equipment.

UNCLASSIFIED

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Appropriation/Budget Activity
3600: *Research, Development, Test & Evaluation, Air Force I BA 5: System Development & Demonstration (SDD)*

R-1 Program Element (Number/Name)
PE 0604287F / *Physical Security Equipment*

F. Performance Metrics

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.

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Air Force **Date:** February 2016

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| Appropriation/Budget Activity 3600 / 5 | R-1 Program Element (Number/Name) PE 0604287F / <i>Physical Security Equipment</i> | Project (Number/Name) 655120 / <i>Physical Security Equipment - SD ED</i> |
|--|--|---|

| Product Development (\$ in Millions) | | | | FY 2015 | | FY 2016 | | FY 2017 Base | | FY 2017 OCO | | FY 2017 Total | Cost To Complete | Total Cost | Target Value of Contract |
|--|------------------------|--------------------------------|-------------|---------|------------|---------|------------|--------------|------------|-------------|------------|---------------|------------------|------------|--------------------------|
| Cost Category Item | Contract Method & Type | Performing Activity & Location | Prior Years | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | | | |
| Integrated Base Defense Security Systems (IBDSS) | Various | Various : Various | - | 3.531 | | 5.833 | | 8.178 | | 0.000 | | 8.178 | Continuing | Continuing | - |
| Subtotal | | | - | 3.531 | | 5.833 | | 8.178 | | 0.000 | | 8.178 | - | - | - |

| Support (\$ in Millions) | | | | FY 2015 | | FY 2016 | | FY 2017 Base | | FY 2017 OCO | | FY 2017 Total | Cost To Complete | Total Cost | Target Value of Contract |
|--|------------------------|--------------------------------|-------------|---------|------------|---------|------------|--------------|------------|-------------|------------|---------------|------------------|------------|--------------------------|
| Cost Category Item | Contract Method & Type | Performing Activity & Location | Prior Years | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | | | |
| Integrated Base Defense Security Systems (IBDSS) | Various | Various : Various | - | 0.395 | | 0.140 | | 0.280 | | 0.000 | | 0.280 | Continuing | Continuing | - |
| Subtotal | | | - | 0.395 | | 0.140 | | 0.280 | | 0.000 | | 0.280 | - | - | - |

Remarks
The support funding is planned at the above amounts. If the support contracts are less, the available funds will be transitioned to the Product Development line.

| Test and Evaluation (\$ in Millions) | | | | FY 2015 | | FY 2016 | | FY 2017 Base | | FY 2017 OCO | | FY 2017 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|------------------------|--------------------------------|-------------|---------|------------|---------|------------|--------------|------------|-------------|------------|---------------|------------------|------------|--------------------------|
| Cost Category Item | Contract Method & Type | Performing Activity & Location | Prior Years | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | | | |
| Subtotal | | | - | - | | - | | - | | - | | - | - | - | - |

| Management Services (\$ in Millions) | | | | FY 2015 | | FY 2016 | | FY 2017 Base | | FY 2017 OCO | | FY 2017 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|------------------------|--------------------------------|-------------|---------|------------|---------|------------|--------------|------------|-------------|------------|---------------|------------------|------------|--------------------------|
| Cost Category Item | Contract Method & Type | Performing Activity & Location | Prior Years | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | | | |
| Subtotal | | | - | - | | - | | - | | - | | - | - | - | - |

| | | | Prior Years | FY 2015 | FY 2016 | FY 2017 Base | FY 2017 OCO | FY 2017 Total | Cost To Complete | Total Cost | Target Value of Contract |
|----------------------------|--|--|-------------|---------|---------|--------------|-------------|---------------|------------------|------------|--------------------------|
| Project Cost Totals | | | - | 3.926 | 5.973 | 8.458 | 0.000 | 8.458 | - | - | - |

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| Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Air Force | | | | | | | Date: February 2016 | | |
| Appropriation/Budget Activity 3600 / 5 | | | R-1 Program Element (Number/Name) PE 0604287F / <i>Physical Security Equipment</i> | | | Project (Number/Name) 655120 / <i>Physical Security Equipment - SD ED</i> | | | |

| | Prior Years | FY 2015 | FY 2016 | FY 2017 Base | FY 2017 OCO | FY 2017 Total | Cost To Complete | Total Cost | Target Value of Contract |
|--|-------------|---------|---------|--------------|-------------|---------------|------------------|------------|--------------------------|
|--|-------------|---------|---------|--------------|-------------|---------------|------------------|------------|--------------------------|

Remarks
 Various delivery orders will be awarded throughout the fiscal year for numerous projects.

UNCLASSIFIED

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| Exhibit R-4, RDT&E Schedule Profile: PB 2017 Air Force | | Date: February 2016 |
| Appropriation/Budget Activity 3600 / 5 | R-1 Program Element (Number/Name) PE 0604287F / <i>Physical Security Equipment</i> | Project (Number/Name) 655120 / <i>Physical Security Equipment - SD ED</i> |

| | FY 2015 | | | | FY 2016 | | | | FY 2017 | | | | FY 2018 | | | | FY 2019 | | | | FY 2020 | | | | FY 2021 | | | |
|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|
| | 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 |
| TSS (VADS Upgrade) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TSS (Future TASS) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TSS (Mobile TASS) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Wide Area Detection (COTS Qual) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Wide Area Detection (B-Static) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Wide Area Detection (Multi-Sensor) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Wide Area Detection (Seismic) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Wide Area Detection (Foliage Penetrating) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CCDE (Re-Compete) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sensors (Interior) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sensors (MW) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sensors (PIR) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sensors (PBLS) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sensors (Fence) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sensors (Interior) (5 year cycle) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sensors (Narrow Band) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sensors (Interior Class 1/Div 2 Environment) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Assessment /Surveillance(Cameras) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Assessment/Surveillance (Cameras) (2nd cycle) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Assessment/Surveillance (Cameras) (3rd cycle) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Assessment/Surveillance (Cameras) (4th cycle) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Annunciator (Phase 1 and 2) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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| Exhibit R-4A, RDT&E Schedule Details: PB 2017 Air Force | | Date: February 2016 |
| Appropriation/Budget Activity 3600 / 5 | R-1 Program Element (Number/Name) PE 0604287F / <i>Physical Security Equipment</i> | Project (Number/Name) 655120 / <i>Physical Security Equipment - SD ED</i> |

Schedule Details

| Events | Start | | End | |
|---|---------|------|---------|------|
| | Quarter | Year | Quarter | Year |
| TSS (VADS Upgrade) | 3 | 2015 | 2 | 2017 |
| TSS (Future TASS) | 4 | 2018 | 2 | 2021 |
| TSS (Mobile TASS) | 2 | 2017 | 2 | 2019 |
| Wide Area Detection (COTS Qual) | 2 | 2016 | 3 | 2017 |
| Wide Area Detection (B-Static) | 1 | 2015 | 3 | 2015 |
| Wide Area Detection (Multi-Sensor) | 1 | 2017 | 3 | 2018 |
| Wide Area Detection (Seismic) | 2 | 2016 | 3 | 2016 |
| Wide Area Detection (Foliage Penetrating) | 1 | 2019 | 3 | 2020 |
| CCDE (Re-Compete) | 2 | 2017 | 4 | 2019 |
| Sensors (Interior) | 3 | 2015 | 3 | 2016 |
| Sensors (MW) | 3 | 2016 | 2 | 2017 |
| Sensors (PIR) | 3 | 2017 | 2 | 2018 |
| Sensors (PBLs) | 3 | 2018 | 2 | 2019 |
| Sensors (Fence) | 3 | 2019 | 2 | 2020 |
| Sensors (Interior) (5 year cycle) | 3 | 2020 | 3 | 2021 |
| Sensors (Narrow Band) | 1 | 2017 | 4 | 2019 |
| Sensors (Interior Class 1/Div 2 Environment) | 2 | 2016 | 4 | 2018 |
| Assessment /Surveillance(Cameras) | 2 | 2015 | 3 | 2020 |
| Assessment/Surveillance (Cameras) (2nd cycle) | 2 | 2017 | 3 | 2020 |
| Assessment/Surveillance (Cameras) (3rd cycle) | 2 | 2019 | 3 | 2020 |
| Assessment/Surveillance (Cameras) (4th cycle) | 1 | 2021 | 3 | 2021 |
| Annunciator (Phase 1 and 2) | 1 | 2016 | 1 | 2018 |

UNCLASSIFIED

Exhibit R-4A, RDT&E Schedule Details: PB 2017 Air Force **Date:** February 2016

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| Events | Start | | End | |
|---|---------|------|---------|------|
| | Quarter | Year | Quarter | Year |
| RTES (Internal Denial) (Market Research) | 2 | 2016 | 2 | 2017 |
| RTES (IP Cameras) | 1 | 2016 | 3 | 2017 |
| RTES (Pop Up Towers) | 3 | 2017 | 2 | 2019 |
| RTES (Counter-UAV Capability) | 1 | 2018 | 1 | 2021 |
| RTES (RTES Gen 4) (Market Research & Development) | 1 | 2020 | 2 | 2021 |
| RTES (Internal RTES) | 1 | 2015 | 4 | 2016 |
| Network (PL-1 Upgrade) | 1 | 2015 | 1 | 2016 |
| Network (Network Security) | 2 | 2016 | 2 | 2017 |
| Network (Secure Wireless Comm) | 1 | 2017 | 3 | 2019 |
| Network (TSS & Fixed Infrastructure) | 3 | 2017 | 3 | 2020 |
| Network (Fiber Integrity Sensor) | 1 | 2016 | 2 | 2018 |
| Advanced Technology (Narrow Beam LOD) | 1 | 2015 | 2 | 2017 |
| Advanced Technology (Video SA System) | 1 | 2016 | 3 | 2017 |
| Advanced Technology (360 Degree Camera) | 1 | 2017 | 3 | 2018 |
| Advanced Technology (Buried Fiber LOD) | 1 | 2018 | 4 | 2019 |
| Advanced Technology (Tethered UAV) | 1 | 2019 | 4 | 2020 |
| Advanced Technology (Handheld Display) | 3 | 2019 | 1 | 2021 |
| Advanced Technology (Advanced Biometrics) | 4 | 2020 | 3 | 2021 |