Exhibit R-2, RDT&E Budget Item Justification: FY 2018 Air Force											Date: May 2017	
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force* / BA 4: *Advanced Component Development & Prototypes (ACD&P)*					R-1 Program Element (Number/Name) PE 1206438F / *Space Control Technology*							
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	-	3.955	7.534	7.842	7.800	15.642	7.988	8.191	8.482	8.655	Continuing	Continuing
642611: *Technology Insertion Planning and Analysis*	-	3.955	7.534	7.842	7.800	15.642	7.988	8.191	8.482	8.655	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

In FY2018, PE 0603438F, Space Control Technology efforts were transferred to PE 1206438F, Space Control Technology due to the creation of a new Major Force Program for Space. FY2016 and FY2017 funding is now documented in the exhibits for PE 1206438F.

A. Mission Description and Budget Item Justification

This project supports a range of activities including technology planning, development, demonstrations and prototyping, and testing, as well as modeling, simulations and exercises to support development of tactics and procedures for a responsive and resilient Space Control mission area. This incudes technology development and prototyping for Defensive Counterspace (DCS) and Offensive Counterspace (OCS). Specifically supported are OCS activities which include disruption, denial, or degradation (and associated Electronic Support) of adversary space systems which may be used for purposes hostile to U.S. national security interests. Rapid Reaction Capabilities in response to immediate warfighter needs in the Space Control mission area are developed within this program.

This program is in Budget Activity 4, Advanced Component Development and Prototypes (ACD&P) because efforts are necessary to evaluate integrated technologies, representative modes or prototype systems in a high fidelity and realistic operating environment.

B. Program Change Summary ($ in Millions)	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Previous President's Budget	4.057	7.534	7.819	0.000	7.819
Current President's Budget	3.955	7.534	7.842	7.800	15.642
Total Adjustments	-0.102	0.000	0.023	7.800	7.823
• Congressional General Reductions	-0.102	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	0.023	7.800	7.823

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Change Summary Explanation

$7.8M of OCO funding for development, testing, training and integration of advanced capabilities in support of JRAC 2-year timeline. Closes out final commitments for Joint Urgent Operational Need.

C. Accomplishments/Planned Programs ($ in Millions)	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Title: Space Control Technology	3.955	7.534	7.842	7.800	15.642
Description: Develops advanced capabilities for rapid prototyping and integration into space control programs of record and, if requested, to warfighter Urgent Operational Needs (UONs) and Joint Urgent Operational Needs (JUONs). Conducts prototyping, demonstration, testing, and rapid transition of technology and techniques to space control systems.					
FY 2016 Accomplishments: Continued integration and testing of Multi-Mission Processor (MMP) Increment 2 architecture into programs of record. Rapidly developed and tested Quick Reaction Capability (QRC) for Joint Rapid Acquisition Council (JRAC)-validated JUON; trained integrated operations/development team to meet stringent deployment timelines.					
FY 2017 Plans: Expand development and testing of advanced prototype, Signal Processing Lab and QRC capabilities. Test MMP Increment 2 Government Referenced Architecture (GRA) across multiple programs of record and their mission-specific capabilities. Execute robust test on program of record, to include CONUS and OCONUS test activities spanning full range of system capabilities and integration of MMP Increment 2. Conduct prototype development and testing of GRA Increment 3, to include integration, testing and transition of advanced QRC. Accelerate Strategic Portfolio Review (SPR) initiatives. If requested, develop, test, train, field and sustain quick reaction capabilities.					
FY 2018 Base Plans: Develop and test advanced prototypes. Expand Signal Processing Lab integration to include industry outreach. Develop, test, train, field and transition advanced QRC capabilities based on COCOM requirements. Integrate relevant GRA Increment 3 technologies. Execute initial testing, to include CONUS and OCONUS activities. Accelerate Strategic Portfolio Review initiatives. As requested, develop, test, train, field and sustain quick reaction capabilities. Continue program office and other related support activities that may include, but are not limited to studies, technical analysis, etc.					
FY 2018 OCO Plans:					

Exhibit R-2, RDT&E Budget Item Justification: FY 2018 Air Force	Date: May 2017
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force* / BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 Program Element (Number/Name)** PE 1206438F / *Space Control Technology*

C. Accomplishments/Planned Programs ($ in Millions)	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
FY18 OCO funds will be used to sustain JUON CC-0550 equipment deployed in support of ongoing operations and perform pre-planned product improvement (P3I) for that equipment. It will also be used to complete RDT&E activities to finalize development, testing and training on remaining capability needs associated with JUON CC-0550.					
Accomplishments/Planned Programs Subtotals	3.955	7.534	7.842	7.800	15.642

D. Other Program Funding Summary ($ in Millions)

Line Item	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
• None: *None*	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Remarks

E. Acquisition Strategy

All contracts funded in this program element will be awarded using competitive procedures to the maximum extent possible. Program consists of numerous small projects.

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.

Exhibit R-3, RDT&E Project Cost Analysis: FY 2018 Air Force			Date: May 2017
Appropriation/Budget Activity 3600 / 4	**R-1 Program Element (Number/Name)** PE 1206438F / *Space Control Technology*	**Project (Number/Name)** 642611 / *Technology Insertion Planning and Analysis*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2016 Cost	FY 2016 Award Date	FY 2017 Cost	FY 2017 Award Date	FY 2018 Base Cost	FY 2018 Base Award Date	FY 2018 OCO Cost	FY 2018 OCO Award Date	FY 2018 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Counterspace Technology Prototyping/Rapid Reaction Development	Various	Various : Various	-	3.548	Jan 2016	6.399	Jan 2017	6.605	Jan 2018	0.000		6.605	Continuing	Continuing	-
Technical Mission Analysis	RO	Aerospace : El Segundo, CA	-	0.000		0.712	Oct 2016	0.730	Oct 2017	0.000		0.730	Continuing	Continuing	-
OCO Funding for JUON Updates	Various	Various : Various	-	0.000		0.000		0.000		7.800		7.800	Continuing	Continuing	-
		Subtotal	-	3.548		7.111		7.335		7.800		15.135	-	-	-

Remarks

N/A

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2016 Cost	FY 2016 Award Date	FY 2017 Cost	FY 2017 Award Date	FY 2018 Base Cost	FY 2018 Base Award Date	FY 2018 OCO Cost	FY 2018 OCO Award Date	FY 2018 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Support	Various	Space and Missile Systems Center : El Segundo, CA	-	0.202	Jan 2016	0.000		0.000		0.000		0.000	0.000	0.202	-
		Subtotal	-	0.202		0.000		0.000		0.000		0.000	0.000	0.202	-

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2016 Cost	FY 2016 Award Date	FY 2017 Cost	FY 2017 Award Date	FY 2018 Base Cost	FY 2018 Base Award Date	FY 2018 OCO Cost	FY 2018 OCO Award Date	FY 2018 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
		Subtotal	-	-		-		-		-		-	-	-	-

Exhibit R-3, RDT&E Project Cost Analysis: FY 2018 Air Force			Date: May 2017
Appropriation/Budget Activity 3600 / 4	R-1 Program Element (Number/Name) PE 1206438F / *Space Control Technology*	Project (Number/Name) 642611 / *Technology Insertion Planning and Analysis*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2016 Cost	FY 2016 Award Date	FY 2017 Cost	FY 2017 Award Date	FY 2018 Base Cost	FY 2018 Base Award Date	FY 2018 OCO Cost	FY 2018 OCO Award Date	FY 2018 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
A&AS	Various	SMC : El Segundo, CA	-	0.205	Jan 2016	0.423	Jan 2017	0.507	Jan 2018	0.000		0.507	Continuing	Continuing	-
		Subtotal	-	0.205		0.423		0.507		0.000		0.507	-	-	-

	Prior Years	FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	3.955		7.534		7.842		7.800		15.642	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: FY 2018 Air Force		Date: May 2017
Appropriation/Budget Activity 3600 / 4	**R-1 Program Element (Number/Name)** PE 1206438F / *Space Control Technology*	**Project (Number/Name)** 642611 / *Technology Insertion Planning and Analysis*

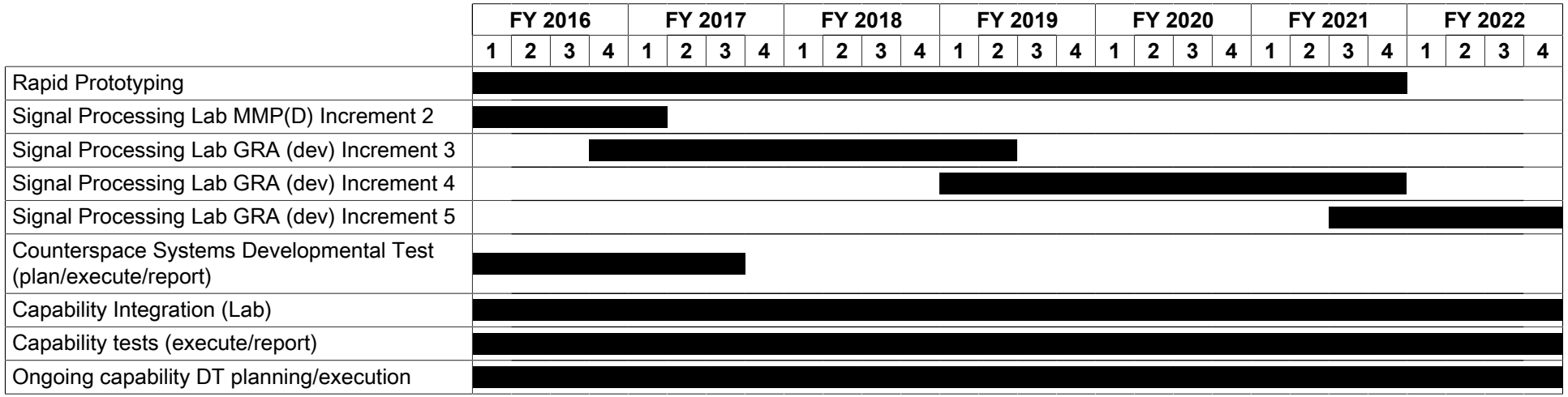

Exhibit R-4A, RDT&E Schedule Details: FY 2018 Air Force		Date: May 2017
Appropriation/Budget Activity 3600 / 4	**R-1 Program Element (Number/Name)** PE 1206438F / *Space Control Technology*	**Project (Number/Name)** 642611 / *Technology Insertion Planning and Analysis*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Rapid Prototyping	1	2016	4	2021
Signal Processing Lab MMP(D) Increment 2	1	2016	1	2017
Signal Processing Lab GRA (dev) Increment 3	4	2016	2	2019
Signal Processing Lab GRA (dev) Increment 4	1	2019	4	2021
Signal Processing Lab GRA (dev) Increment 5	3	2021	4	2022
Counterspace Systems Developmental Test (plan/execute/report)	1	2016	3	2017
Capability Integration (Lab)	1	2016	4	2022
Capability tests (execute/report)	1	2016	4	2022
Ongoing capability DT planning/execution	1	2016	4	2022