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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 7: Operational Systems Development</i>	R-1 Program Element (Number/Name) PE 0305128F / <i>Security and Investigative Activities</i>
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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	-	0.000	0.472	0.405	0.000	0.405	0.414	0.421	0.428	0.436	0.000	2.576
671931: <i>TECH SURVEIL COUNTER MEAS EQPT</i>	-	0.000	0.472	0.405	0.000	0.405	0.414	0.421	0.428	0.436	0.000	2.576
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-	-	-

A. Mission Description and Budget Item Justification

Air Force Office of Special Investigations (AFOSI) conducts specialized investigative activities and force protection support for Air Force (AF) commanders worldwide. This assists AF commanders in protecting their people and resources. AFOSI's mission includes investigating criminal matters affecting AF personnel, contract fraud and economic crimes involving AF weapons systems and spare parts, the investigation of environmental crime, counterdrugs, computer intrusion detection and forensic media analysis of computer crimes. This element supports Technical Surveillance Countermeasures (TSCM), Computer Crime Investigations (CCI), and technical support to criminal and counterintelligence investigations and operations conducted by AFOSI. AFOSI's TSCM mission conducts counterintelligence investigations for both AF and DoD facilities and programs in order to deter and detect technical surveillance operations conducted by Foreign Intelligence Services to compromise classified or sensitive information. The purpose of CCI research is to improve AF and DoD Information Operations capability by enhancing AFOSI's ability to deter or prevent spies, hackers, or saboteurs from manipulating, damaging, or stealing sensitive war fighting data or systems. Failing that, to investigate, identify, and prosecute those who do. While most research to meet operational requirements is Operational System Development, there is also research in the category of Engineering and Manufacturing Development due to a need for modifications to present technology. The equipment required to provide technical support to investigations is unique and complex. This equipment must be continually updated to provide state-of-the-art capabilities to detect and neutralize criminal activities targeted against the AF and DoD. In an era of advancing technology, reduced manning, and increasingly high level fraud, environmental crime and computer crime investigations, technical investigative equipment must be continuously updated to enable AFOSI special agents to have the most cost effective and best possible means of thwarting criminal acts. The evolution of a new wave of computer crimes has made AFOSI responsible for the collection, investigative analysis, national level law enforcement coordination, and dissemination of hacker activity and intrusion incidents for the Air Force. AFOSI's computer crime equipment must stay on the leading edge of technology to collect criminal information as well as pursue and apprehend criminals through a global medium. AFOSI must continually update its existing high tech computer surveillance equipment to support ongoing and future investigative operations to identify hackers and hacker groups, as well as potential hostile government activities targeting Air Force communication and control systems. Critical Infrastructure Protection identifies weaknesses in the Air Force Critical infrastructure, highlights critical countermeasures and acquires and deploys cost-effective solutions. The intent is to provide an Air Force-wide review of current infrastructure vulnerabilities; prioritize AF protection planning and integrate with existing programs; identify gaps based on AF needs; direct studies to refine AF requirements.

This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

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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	0.000	0.472	0.409	0.000	0.409	
Current President's Budget	0.000	0.472	0.405	0.000	0.405	
Total Adjustments	0.000	0.000	-0.004	0.000	-0.004	
• 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	-0.004	0.000	-0.004	
C. Accomplishments/Planned Programs (\$ in Millions)	FY 2015	FY 2016	FY 2017			
Title: TSCM	0.000	0.472	0.405			
Description: Next Generation Technical Surveillance Countermeasures (TSCM) receiver. TSCM detects, deters and neutralizes traditional and emerging technical collection efforts of foreign intelligence entities and insider threats while identifying physical security vulnerabilities in sensitive information processing facilities. Developments in technologies provide for increased frequency spectrum and information network awareness and advanced automated analytical tools in a man-portable form factor. Additionally, the potential increased speed and resolution reduces man hours and time on target resulting in inherent efficiencies as related to human and capital resources.						
FY 2015 Accomplishments: N/A						
FY 2016 Plans: Continue development of Next Generation Technical Surveillance Countermeasures (TSCM) receiver. FY16 activities (based on FY15 results) will transition into more robust activities to identify, develop and test and evaluate receivers against state-of-the-art commercial and state-sponsored technical collection tools and capabilities. Evaluation and acceptance testing will facilitate the objective and technical evaluation towards meeting validated requirements prior to full-rate acquisition.						
FY 2017 Plans: Further research and develop tools to exploit cyberspace, digital media and mobile devices for the collection of evidence and counterintelligence information and methods of neutralizing threats from intrusions and insider threats.						
Accomplishments/Planned Programs Subtotals				0.000	0.472	0.405

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D. Other Program Funding Summary (\$ in Millions) N/A		
Remarks		
E. Acquisition Strategy Market Research is accomplished jointly within the DoD, Counterintelligence, and Law Enforcement communities with the various government laboratories and major contractors to identify locations with the ability to develop investigative tools unique to our mission needs. These technologies, capabilities, and limitations of current and future investigative tools is sometimes highly sensitive or classified. Market Research also allows inter-agency coordination and deconfliction to occur, reducing or eliminating duplicitous development efforts. Annually, stakeholders meet to discuss initiatives, challenges and organizational goals to coordinate or consolidate requirements to increase efficiency. Once Market Research and any applicable coordination/deconfliction is completed, acquisition channels are analyzed and selected based on the ability to meet operational and technical security requirements.		
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.		

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

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0305128F / Security and Investigative Activities	Project (Number/Name) 671931 / TECH SURVEIL COUNTER MEAS EQPT
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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			
TSCM R/D #4	MIPR	HQ AFOSI : Quantico, VA	-	0.000	Dec 2015	0.472	Dec 2015	0.405	Dec 2016	0.000		0.405	Continuing	Continuing	TBD
Subtotal			-	0.000		0.472		0.405		0.000		0.405	-	-	-

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			
Subtotal			-	-		-		-		-		-	-	-	-

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			-	0.000	0.472	0.405	0.000	0.405	-	-	-

Remarks
 Funds support AFOSI RDTE at the intelligence community's Interagency Test and Evaluation Lab at a secure location to identify, research, develop, test, and evaluate classified and unclassified technical surveillance and countermeasures solutions to emerging operational

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

requirements in support of AFOSI services to protect Air Force and DoD resources.

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Exhibit R-4, RDT&E Schedule Profile: PB 2017 Air Force		Date: February 2016
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	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
Technical Surveillance Equipment Test & Evaluation	██████████																											
Complete Phase I TSCM LASER Receiver R&D Project w/Naval Research Lab (NRL)	██████████																											
Begin Phase II RDT&E Project (MIPR to NRL)					██████████																							
Technical Surveillance Equipment Test & Evaluation (1)					██████████																							
Continue Phase II TSCM LASER Project									██████████																			
Technical Surveillance Equipment Test & Evaluation (2)									██████████																			
Transition from Phase II TSCM LASER Project to Phase III													██████████															
Technical Surveillance Equipment Test & Evaluation (3)													██████████															
Complete Phase III (Final) TSCM LASER Project																	██████████											
Technical Surveillance Equipment Test & Evaluation (4)																					██████████							
Technical Surveillance Equipment Test & Evaluation (5)																									██████████			

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

Events	Start		End	
	Quarter	Year	Quarter	Year
Technical Surveillance Equipment Test & Evaluation	1	2015	4	2015
Complete Phase I TSCM LASER Receiver R&D Project w/Naval Research Lab (NRL)	1	2015	4	2015
Begin Phase II RDT&E Project (MIPR to NRL)	1	2016	4	2016
Technical Surveillance Equipment Test & Evaluation (1)	1	2016	4	2016
Continue Phase II TSCM LASER Project	1	2017	4	2017
Technical Surveillance Equipment Test & Evaluation (2)	1	2017	4	2017
Transition from Phase II TSCM LASER Project to Phase III	1	2018	4	2018
Technical Surveillance Equipment Test & Evaluation (3)	1	2018	4	2018
Complete Phase III (Final) TSCM LASER Project	1	2019	4	2019
Technical Surveillance Equipment Test & Evaluation (4)	1	2020	4	2020
Technical Surveillance Equipment Test & Evaluation (5)	1	2021	4	2021

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