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**Exhibit R-2, RDT&E Budget Item Justification: FY 2018 Air Force** **Date:** May 2017

<b>Appropriation/Budget Activity</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force I BA 7: Operational Systems Development</i>					<b>R-1 Program Element (Number/Name)</b> PE 0207431F <i>I Combat Air Intelligence System Activities</i>							
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
Total Program Element	-	6.793	10.911	13.420	0.000	13.420	10.393	10.446	10.637	10.862	Continuing	Continuing
675306: <i>Analysis Enterprise</i>	-	0.000	0.000	1.003	0.000	1.003	0.000	0.000	0.000	0.000	Continuing	Continuing
675307: <i>TARGETING ENTERPRISE RESEARCH</i>	-	5.050	6.263	11.717	0.000	11.717	9.522	9.695	9.872	10.081	Continuing	Continuing
675309: <i>GEO Info &amp; Serv Software</i>	-	1.743	4.648	0.700	0.000	0.700	0.871	0.751	0.765	0.781	Continuing	Continuing

**Note**  
This program, BA 07 PE 0207431F, project 675306, Fund Acq/Intel STAR VOLT, is a new start.

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

The mission of Combat Air Intelligence Systems (CAIS) is to process, analyze, and disseminate intelligence for air component and unit operations worldwide by providing key intelligence infrastructure and production capabilities for the supported and supporting forces with true backbone type of intelligence support for air operations and air support to joint operations. CAIS is focused on providing the intelligence infrastructure and funding to Air Force Major Commands, Intelligence, Cyber, and Space Squadrons, Field Operating Agencies, and subordinate units.

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

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>
Previous President's Budget	6.793	10.911	10.552	0.000	10.552
Current President's Budget	6.793	10.911	13.420	0.000	13.420
Total Adjustments	0.000	0.000	2.868	0.000	2.868
• 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	2.868	0.000	2.868

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> FY 2018 Air Force										<b>Date:</b> May 2017		
<b>Appropriation/Budget Activity</b> 3600 / 7					<b>R-1 Program Element (Number/Name)</b> PE 0207431F / <i>Combat Air Intelligence System Activities</i>				<b>Project (Number/Name)</b> 675306 / <i>Analysis Enterprise</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
675306: <i>Analysis Enterprise</i>	-	0.000	0.000	1.003	0.000	1.003	0.000	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**Note**  
This program, BA 07 PE 0207431F, project 675306, Fund Acq/Intel STAR VOLT, is a new start.

**A. Mission Description and Budget Item Justification**  
Mission Description not provided.

<b><u>B. Accomplishments/Planned Programs (\$ in Millions)</u></b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>
<b><i>Title:</i></b> Fund Acq/Intel STAR VOLT  <b><i>Description:</i></b> DoD 5000.02 mandated a 100% increase in System Threat Assessment Reports (STARs) production. The Validated Online Lifecycle Threat (VOLT), STAR replacement, supports acq of weapon systems more effective against future threats.  <b><i>FY 2018 Plans:</i></b> Provides RDT&E support required to meet DoDI 5000.02 STAR mandate and create specialized software to automatically extract/compile data from intel databases.	-	-	1.003
<b>Accomplishments/Planned Programs Subtotals</b>	-	-	1.003

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

**Remarks**

**D. Acquisition Strategy**  
N/A

**E. 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-2A, RDT&E Project Justification: FY 2018 Air Force										Date: May 2017		
Appropriation/Budget Activity 3600 / 7					R-1 Program Element (Number/Name) PE 0207431F / Combat Air Intelligence System Activities				Project (Number/Name) 675307 / TARGETING ENTERPRISE RESEARCH			
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
675307: TARGETING ENTERPRISE RESEARCH	-	5.050	6.263	11.717	0.000	11.717	9.522	9.695	9.872	10.081	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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

Provides support to personnel utilizing Target Development, Planning, and Execution applications; Unit Level Intelligence; Tactical Intelligence Applications; and direct support to national, combatant command, and Air Force intelligence missions.

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

	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>
<b>Title:</b> Targeting Enterprise Research	5.050	6.263	11.717
<p><b>Description:</b> Continue to conduct Targeting Enterprise research and advancement for projects such as Information for Operational and Tactical Analysis (IOTA), Joint Targeting Toolbox (JTT), Global Command and Control System Integrated Imagery and Intelligence (GCCS-I3), Intelligence, Surveillance and Reconnaissance (ISR) Strategy-to-Task Assessment of Kill-chain Effectiveness (STAKE), and Imagery Analyst (IA) Pioneer Electronic Light Table (ELT), and Full Spectrum Targeting (FST). This budget item also funds emerging targeting capabilities (such as Target System Analysis, 4D visualization, etc.) and modernization efforts.</p> <p><b>FY 2016 Accomplishments:</b> Moved applications within the Targeting and Geospatial Intelligence (T&amp;G) Program Management Office (PMO) portfolio to the DI2E environment which provides transparency into the work being performed and shortens delivery timelines. This migration to DI2E will enable a phased transition to a Continuous Integration/DevOps environment. DI2E also allows for the use of an automated test infrastructure on multiple projects in the portfolio. Incorporated Agile development methodologies on JTT, eGPL, ISRStake, and GCCS-I3. Continued efforts to address operator desired changes and improve/increase interoperability of applications. Migrated and consolidated targeting capabilities into one portfolio under the T&amp;G PMO.</p> <p><b>FY 2017 Plans:</b> T&amp;G is incorporating User Centered Design into its capabilities in support of increasing usability of capabilities built around operational needs. Initial modernization focus will be on IOTA, JTT, and GCCS-I3. Initial pilot of JTT as a capability package decoupled from GCCS-J at CAOC-N &amp; 363rd ISR Wing to demonstrate new architectural approach for T&amp;G capabilities. Continuing to migrate and consolidate targeting capabilities into one portfolio under the T&amp;G PMO. Implementing a modernization effort which will provide the capability to facilitate agile development for new tools and applications.</p> <p><b>FY 2018 Plans:</b></p>			

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Exhibit R-2A, RDT&E Project Justification: FY 2018 Air Force										Date: May 2017		
Appropriation/Budget Activity 3600 / 7				R-1 Program Element (Number/Name) PE 0207431F / <i>Combat Air Intelligence System Activities</i>				Project (Number/Name) 675307 / <i>TARGETING ENTERPRISE RESEARCH</i>				
<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>										<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>
Continue the phased modernization of the remaining capabilities within the T&G portfolio, expand test automation, and migrate to a true Continuous Integration/DevOps environment.												
Accomplishments/Planned Programs Subtotals										5.050	6.263	11.717
<b>C. Other Program Funding Summary (\$ in Millions)</b>												
<b>Line Item</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	
• OPAF: BA03: Line Item #832070: <i>Intelligence Comm Equipment</i>	3.894	6.294	6.534	0.000	6.534	6.273	4.384	4.464	0.000	Continuing	Continuing	
<b>Remarks</b>												
Combat Air Intelligence System (CAIS) procurement funds.												
<b>D. Acquisition Strategy</b>												
All contracts are awarded based on full and open competition.												
<b>E. Performance Metrics</b>												
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: FY 2018 Air Force												Date: May 2017			
Appropriation/Budget Activity 3600 / 7						R-1 Program Element (Number/Name) PE 0207431F / Combat Air Intelligence System Activities				Project (Number/Name) 675307 / TARGETING ENTERPRISE RESEARCH					
Product Development (\$ in Millions)				FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 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
Targeting Enterprise Research	Various	TBD : TBD	-	3.710	Dec 2015	5.084	Dec 2016	9.374	Dec 2017	0.000		9.374	Continuing	Continuing	-
Subtotal			-	3.710		5.084		9.374		0.000		9.374	-	-	-
Support (\$ in Millions)				FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 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
Targeting Systems Support	Various	SPAWAR : Phili, PA	-	0.581	Nov 2015	0.598	Dec 2016	0.603	Jan 1901	0.000		0.603	Continuing	Continuing	-
DMS, MilCloud	Various	Various : NA, NA	-	0.000		0.174		0.920		0.000		0.920	Continuing	Continuing	-
Subtotal			-	0.581		0.772		1.523		0.000		1.523	-	-	-
Test and Evaluation (\$ in Millions)				FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 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
46th Test Squadron	PO	46th Test Squadron : Eglin, FL	-	0.265	Jan 2016	0.295	Dec 2016	0.351	Dec 2017	0.000		0.351	Continuing	Continuing	-
Subtotal			-	0.265		0.295		0.351		0.000		0.351	-	-	-
Management Services (\$ in Millions)				FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 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
Targeting Research Enterprise	Various	Program Management Office : Hanscom, MA	-	0.494	Dec 2015	0.112	Dec 2016	0.469	Dec 2017	0.000		0.469	Continuing	Continuing	-
Subtotal			-	0.494		0.112		0.469		0.000		0.469	-	-	-

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Exhibit R-3, RDT&E Project Cost Analysis: FY 2018 Air Force										Date: May 2017					
Appropriation/Budget Activity 3600 / 7					R-1 Program Element (Number/Name) PE 0207431F / <i>Combat Air Intelligence System Activities</i>					Project (Number/Name) 675307 / <i>TARGETING ENTERPRISE RESEARCH</i>					
			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			-	5.050		6.263		11.717		0.000		11.717	-	-	-

Remarks

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Exhibit R-4, RDT&E Schedule Profile: FY 2018 Air Force			Date: May 2017		
Appropriation/Budget Activity 3600 / 7			R-1 Program Element (Number/Name) PE 0207431F / Combat Air Intelligence System Activities		
			Project (Number/Name) 675307 / TARGETING ENTERPRISE RESEARCH		

	FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022			
	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
Software/Hardware Development																												
Test and Evaluation																												

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> FY 2018 Air Force			<b>Date:</b> May 2017
<b>Appropriation/Budget Activity</b> 3600 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0207431F / <i>Combat Air Intelligence System Activities</i>	<b>Project (Number/Name)</b> 675307 / <i>TARGETING ENTERPRISE RESEARCH</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Software/Hardware Development	1	2016	4	2021
Test and Evaluation	1	2016	4	2021



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Exhibit R-2A, RDT&E Project Justification: FY 2018 Air Force										Date: May 2017		
Appropriation/Budget Activity 3600 / 7					R-1 Program Element (Number/Name) PE 0207431F / Combat Air Intelligence System Activities				Project (Number/Name) 675309 / GEO Info & Serv Software			
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
675309: GEO Info & Serv Software	-	1.743	4.648	0.700	0.000	0.700	0.871	0.751	0.765	0.781	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
A. Mission Description and Budget Item Justification												
Provides support to personnel using Geospatial resources utilized in Geospatial Intelligence (GEOINT) databasing applications, unit level intelligence, technology exploration and refresh initiatives, management and dissemination architecture, geospatial information and services modernization, and enablers for targeting capabilities. Provides support to the MAJCOMs to ensure requisite and available target intelligence and GEOINT tools for information directly available to warfighters.												
The GEOINT information and service software program funds the Air Force Geospatial Product Library (GPL) which is currently fielded to all combatant command air components and subordinate units supporting global air operations. The GPL provides digital GEOINT data to support mission planning, targeting & intelligence in support of mission objectives.												
B. Accomplishments/Planned Programs (\$ in Millions)									FY 2016	FY 2017	FY 2018	
Title: Enhanced Geospatial Product Library (EGPL)									1.743	4.648	0.700	
Description: Provide continuing support for EGPL software and storage to meet future and evolving IT and GEOINT standards and support.												
FY 2016 Accomplishments: Continued efforts to reduce duplication of functionality, increase communication between enterprise tools, and increase functions in critical mission areas. Began to enhance data services and data access across base and network design and continue existing development support (EGPL data update, system security certification, etc).												
FY 2017 Plans: Continue eGPL Version 3.0 development, test efforts, sustainment, (Development Test (DT), and Force Development Evaluation (FDE)).												
FY 2018 Plans: Continue eGPL Version 3.0 development, test efforts, sustainment, (Development Test (DT), and Force Development Evaluation (FDE)).												
Accomplishments/Planned Programs Subtotals									1.743	4.648	0.700	

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> FY 2018 Air Force										<b>Date:</b> May 2017	
<b>Appropriation/Budget Activity</b> 3600 / 7				<b>R-1 Program Element (Number/Name)</b> PE 0207431F / <i>Combat Air Intelligence System Activities</i>				<b>Project (Number/Name)</b> 675309 / <i>GEO Info &amp; Serv Software</i>			
<b>C. Other Program Funding Summary (\$ in Millions)</b>											
			<u><b>FY 2018</b></u>	<u><b>FY 2018</b></u>	<u><b>FY 2018</b></u>					<u><b>Cost To</b></u>	
<u><b>Line Item</b></u>	<u><b>FY 2016</b></u>	<u><b>FY 2017</b></u>	<u><b>Base</b></u>	<u><b>OCO</b></u>	<u><b>Total</b></u>	<u><b>FY 2019</b></u>	<u><b>FY 2020</b></u>	<u><b>FY 2021</b></u>	<u><b>FY 2022</b></u>	<u><b>Complete</b></u>	<u><b>Total Cost</b></u>
• OPAF:BA03: Line Item #832070: <i>Intelligence Comm Equipment</i>	3.894	6.294	6.534	0.000	6.534	6.273	4.384	4.464	0.000	Continuing	Continuing
<b>Remarks</b>											
<b>D. Acquisition Strategy</b>											
All major contracts within this project will be awarded after full and open competition.											
<b>E. Performance Metrics</b>											
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.											