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<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2019 Air Force	<b>Date:</b> February 2018
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<b>Appropriation/Budget Activity</b>	<b>R-1 Program Element (Number/Name)</b>											
3600: <i>Research, Development, Test &amp; Evaluation, Air Force I BA 7: Operational Systems Development</i>	PE 0307577F I <i>Intelligence Mission Data (IMD)</i>											
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019 Base</b>	<b>FY 2019 OCO</b>	<b>FY 2019 Total</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
Total Program Element	-	0.000	8.684	4.117	0.000	4.117	2.033	1.260	1.285	1.308	Continuing	Continuing
675306: <i>Analysis Enterprise</i>	-	0.000	5.074	1.337	0.000	1.337	1.239	1.260	1.285	1.308	Continuing	Continuing
675307: <i>TARGETING ENTERPRISE RESEARCH</i>	-	0.000	3.610	2.780	0.000	2.780	0.794	0.000	0.000	0.000	Continuing	Continuing

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

Intelligence Mission Data (IMD) encompasses several key intelligence data efforts used to support IMD-dependent programs, including the fifth generation aircraft capabilities. The term IMD encompasses Red (adversary military systems), White (commercial systems), Blue (U.S. military systems), and Grey (neutral military systems) Characteristics & Performance; Signatures; Geospatial Intelligence; Electronic Warfare systems and Operational Order of Battle mission data. The PE funds: Planning & direction, collection, processing & exploitation, analysis & production, and dissemination (PCPAD) to support IMD-dependent programs.

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.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019 Base</b>	<b>FY 2019 OCO</b>	<b>FY 2019 Total</b>
Previous President's Budget	0.000	8.684	4.148	0.000	4.148
Current President's Budget	0.000	8.684	4.117	0.000	4.117
Total Adjustments	0.000	0.000	-0.031	0.000	-0.031
• 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	-0.031	0.000	-0.031

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Exhibit R-2A, RDT&E Project Justification: PB 2019 Air Force										Date: February 2018		
Appropriation/Budget Activity 3600 / 7					R-1 Program Element (Number/Name) PE 0307577F / Intelligence Mission Data (IMD)				Project (Number/Name) 675306 / Analysis Enterprise			
COST (\$ in Millions)	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
675306: Analysis Enterprise	-	0.000	5.074	1.337	0.000	1.337	1.239	1.260	1.285	1.308	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
A. Mission Description and Budget Item Justification												
In FY 2018, PE 0207431F, Combat Air Intelligence Systems, Intelligence Mission Data efforts were transferred to new for 2018 PE 0307577F, Intelligence Mission Data (IMD), in order to provide better oversight of IMD research and development. (+\$5.074M)												
Intelligence Mission Data efforts in BPAC 675306 fund RDT&E to enable Advanced Non-cooperative Target Recognition (NCTR) collection, Operational Reconnaissance and traditional ELINT capabilities, advanced all-source analysis and production of IMD across EWIR, C&P, and Signatures to enable combat ID and ensure survivability for air superiority and global strike platforms.												
B. Accomplishments/Planned Programs (\$ in Millions)									FY 2017	FY 2018	FY 2019	
Title: NCTR Collection and IMD Production Tools									-	5.074	1.337	
Description: Development of MASINT collection systems, creation of automated tools to process ELINT data, and development of improved analysis, production, and dissemination tools to create IMD used for combat ID.												
FY 2018 Plans:												
- Develop 3 new collection sensors while upgrading current capabilities												
- Initiate first phase of development for new modeling tools to create Measurement and Signatures of emerging threats												
- Start development of automated tools to quickly process ELINT data for utilization in EWIR												
FY 2019 Plans:												
Continue development of automated tools to disseminate measurement and signatures information to EWIR, develop, document, deliver models of advanced threat systems.												
FY 2018 to FY 2019 Increase/Decrease Statement:												
Funding decreased due to projected completion of development of new sensors.												
Accomplishments/Planned Programs Subtotals									-	5.074	1.337	

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2019 Air Force										<b>Date:</b> February 2018	
<b>Appropriation/Budget Activity</b> 3600 / 7				<b>R-1 Program Element (Number/Name)</b> PE 0307577F / <i>Intelligence Mission Data (IMD)</i>				<b>Project (Number/Name)</b> 675306 / <i>Analysis Enterprise</i>			
<b>C. Other Program Funding Summary (\$ in Millions)</b>											
			<u>FY 2019</u>	<u>FY 2019</u>	<u>FY 2019</u>					<u>Cost To</u>	
<u>Line Item</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>Base</u>	<u>OCO</u>	<u>Total</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u>	<u>Complete</u>	<u>Total Cost</u>
• OPAF 07 030577F: <i>Intelligence Mission Data</i>	0.000	1.313	0.606	-	0.606	0.000	0.514	0.000	0.000	Continuing	Continuing
<b>Remarks</b>											
<b>D. Acquisition Strategy</b>											
N/A											
<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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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis:</b> PB 2019 Air Force												<b>Date:</b> February 2018		
<b>Appropriation/Budget Activity</b> 3600 / 7						<b>R-1 Program Element (Number/Name)</b> PE 0307577F / <i>Intelligence Mission Data (IMD)</i>				<b>Project (Number/Name)</b> 675306 / <i>Analysis Enterprise</i>				

  

Product Development (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 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
Not specified.	Various	NASIC : WPAFB, OH	-	0.000		5.074		1.337		0.000		1.337	Continuing	Continuing	-
<b>Subtotal</b>			-	0.000		5.074		1.337		0.000		1.337	Continuing	Continuing	N/A

  

			Prior Years	FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total	Cost To Complete	Total Cost	Target Value of Contract
<b>Project Cost Totals</b>			-	0.000		5.074		1.337		0.000		1.337	Continuing	Continuing	N/A

  

**Remarks**  
 Contract award is expected 90 days after budget authority for FY18. FY19 will be one year after FY18.

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Exhibit R-4, RDT&E Schedule Profile: PB 2019 Air Force												Date: February 2018							
Appropriation/Budget Activity 3600 / 7								R-1 Program Element (Number/Name) PE 0307577F / Intelligence Mission Data (IMD)								Project (Number/Name) 675306 / Analysis Enterprise			

	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023			
	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
NCTR and IMD Tool Development																												
NCTR sensor dev start																												
SIGINT/EWIR Tools Development																												
SIGNATURE Tool Development																												
C&P Tool Development																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2019 Air Force		Date: February 2018
Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0307577F / Intelligence Mission Data (IMD)	Project (Number/Name) 675306 / Analysis Enterprise

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>NCTR and IMD Tool Development</i></b>				
NCTR sensor dev start	3	2018	3	2020
SIGINT/EWIR Tools Development	3	2019	3	2023
SIGNATURE Tool Development	3	2018	3	2023
C&P Tool Development	3	2019	3	2023

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Exhibit R-2A, RDT&E Project Justification: PB 2019 Air Force										Date: February 2018		
Appropriation/Budget Activity 3600 / 7					R-1 Program Element (Number/Name) PE 0307577F / Intelligence Mission Data (IMD)				Project (Number/Name) 675307 / TARGETING ENTERPRISE RESEARCH			
COST (\$ in Millions)	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
675307: TARGETING ENTERPRISE RESEARCH	-	0.000	3.610	2.780	0.000	2.780	0.794	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
Note												
In FY 2018, PE 0207431F, Combat Air Intelligence Systems, Intelligence Mission Data efforts were transferred to the new PE 37577F for 2018, Intelligence Mission Data (IMD), in order to provide better oversight of IMD research and development.												
A. Mission Description and Budget Item Justification												
In FY 2018, PE 0207431F, Combat Air Intelligence Systems, Intelligence Mission Data efforts were transferred to new for 2018 PE 0307577F, Intelligence Mission Data (IMD), in order to provide better oversight of IMD research and development. (+\$5.074M)												
Intelligence Mission Data efforts in BPAC 675307, Targeting Enterprise Research, fund RDT&E for Operational Reconnaissance Electronic Warfare (EW) Capabilities; Tactical Data Recorder; Advanced Non-cooperative Target Recognition (NCTR) Collection.												
These tools enable the collection, storage, and dissemination of Electronic Warfare Data (EW Data) gathered during operational missions by currently fielded air platforms.												
In addition, the Advanced NCTR collection sensor supports CAF-wide requirements for improved ID capabilities.												
B. Accomplishments/Planned Programs (\$ in Millions)									FY 2017	FY 2018	FY 2019	
Title: Operational Reconnaissance Electronic Warfare Capabilities									-	3.610	2.780	
Description: RDT&E efforts to develop recording, storage, and dissemination systems for EW Data gathered during operational missions.												
FY 2018 Plans:												
RDT&E efforts to develop recording, storage, and dissemination systems for EW Data gathered during operational missions. These include but are not limited to data off-boarding and radar warning receiver performance assessment.												
FY 2019 Plans:												
Will continue RDT&E efforts to develop recording, storage, and dissemination systems for EW Data gathered during operational missions. These include but are not limited to data off-boarding and radar warning receiver performance assessment.												
FY 2018 to FY 2019 Increase/Decrease Statement:												

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Exhibit R-2A, RDT&E Project Justification: PB 2019 Air Force							Date: February 2018				
Appropriation/Budget Activity 3600 / 7			R-1 Program Element (Number/Name) PE 0307577F / Intelligence Mission Data (IMD)			Project (Number/Name) 675307 / TARGETING ENTERPRISE RESEARCH					
B. Accomplishments/Planned Programs (\$ in Millions)							FY 2017	FY 2018	FY 2019		
FY 2019 decrease due to planned program activities.											
Accomplishments/Planned Programs Subtotals							-	3.610	2.780		
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
• OPAF 03 Line Item 832070: Intelligence Comm Equipment	0.000	1.313	0.606	0.000	0.606	0.000	0.514	0.000	0.000	Continuing	Continuing
Remarks											
D. Acquisition Strategy											
Capabilities will be developed and integrated onto various platforms using an incremental acquisition approach. The projects will be executed, contracting with appropriate vendor(s) to deliver capability while encouraging competition where possible.											
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-3, RDT&E Project Cost Analysis: PB 2019 Air Force												Date: February 2018			
Appropriation/Budget Activity 3600 / 7						R-1 Program Element (Number/Name) PE 0307577F / Intelligence Mission Data (IMD)				Project (Number/Name) 675307 / TARGETING ENTERPRISE RESEARCH					
Product Development (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 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
Ops Recce Database Projects	Various	Not specified. : TBD	-	0.000		3.249	Oct 2017	2.502	Oct 2018	-		2.502	Continuing	Continuing	-
Not specified.	C/CPAF	Not specified. : TBD	-	-		-		-		-		-	Continuing	Continuing	-
Subtotal			-	0.000		3.249		2.502		-		2.502	Continuing	Continuing	N/A
Management Services (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 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
PMA	Various	Not specified. : TBD	-	0.000		0.361	Oct 2017	0.278	Oct 2018	-		0.278	Continuing	Continuing	-
Subtotal			-	0.000		0.361		0.278		-		0.278	Continuing	Continuing	N/A
			Prior Years	FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	0.000		3.610		2.780		-		2.780	Continuing	Continuing	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2019 Air Force										Date: February 2018									
Appropriation/Budget Activity 3600 / 7					R-1 Program Element (Number/Name) PE 0307577F / Intelligence Mission Data (IMD)					Project (Number/Name) 675307 / TARGETING ENTERPRISE RESEARCH									

	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023			
	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
<b>Ops Recce Projects</b>																												
Ops Recce Projects																												
Data Offboarding																												
Data Offboarding - Analysis																												
Data Offboarding Demo																												
Sensor Development																												
Sensor Development - SW Development																												
Sensor Development - Demo and Analysis																												

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2019 Air Force			<b>Date:</b> February 2018
<b>Appropriation/Budget Activity</b> 3600 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0307577F / <i>Intelligence Mission Data (IMD)</i>	<b>Project (Number/Name)</b> 675307 / <i>TARGETING ENTERPRISE RESEARCH</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>Ops Recce Projects</i></b>				
Ops Recce Projects	2	2018	4	2020
Data Offboarding	2	2018	4	2020
Data Offboarding - Analysis	2	2018	4	2020
Data Offboarding Demo	4	2019	4	2020
Sensor Development	2	2018	4	2020
Sensor Development - SW Development	2	2018	2	2020
Sensor Development - Demo and Analysis	2	2019	4	2020