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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 I BA 4: Advanced Component Development & Prototypes (ACD&P)					R-1 Program Element (Number/Name) PE 1203710F I EO/IR Weather Systems							
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	-	0.000	0.000	10.000	0.000	10.000	0.000	0.000	0.000	0.000	Continuing	Continuing
643730: EO/IR Weather System Dev	-	0.000	0.000	10.000	0.000	10.000	0.000	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

This program, BA 04 PE 1203710F, project 643730, Weather System Follow-On Electro-Optical/Infrared (EO/IR), is a new start.
This program, BA 04 PE 1203710F, project 643730, Weather System Follow-On Geostationary (WSF-G), is a new start.

A. Mission Description and Budget Item Justification

Weather System Follow-on (WSF) is the Department of Defense's (DoD) future weather system. The program will leverage a group of systems to provide timely, reliable, and high quality remote sensing capabilities that will make global environmental observations of atmospheric, terrestrial, oceanographic, solar-geophysical conditions and meet other requirements validated by the Joint Requirements Oversight Council (JROC).

Based on completion of the Space-Based Environmental Monitoring (SBEM) JROC Memo 033-16, capabilities will be developed to satisfy weather Gap 1 (Cloud Characterization) and Gap 2 (Theater Weather Imagery). The earliest possible launch options are being integrated in the design for critical gaps.

DoD established WSF as a Pre-Major Defense Acquisition Program (MDAP) with the Air force as the lead component. Based on the SBEM AoA results, the WSF initial thrusts will be to enable:

- 1) DoD use of data collected by civil, international and other DoD space systems;
- 2) Residual WSF Geostationary Operational Environmental Satellite (GOES) (WSF-G) relocation planning and engineering assessment;
- 3) Timely weather collection of WSF-E Program of Record;
- 4) Explore and/or utilize the use of commercially available data.

Secondary investments may be supported to address weather gaps identified in the SBEM AoA and validated by the JROC.

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.

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B. Program Change Summary (\$ in Millions)	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	
Previous President's Budget	0.000	0.000	0.000	0.000	0.000	
Current President's Budget	0.000	0.000	10.000	0.000	10.000	
Total Adjustments	0.000	0.000	10.000	0.000	10.000	
• 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	10.000	0.000	10.000	
Change Summary Explanation						
FY2018: +10M to initiate Weather System Follow On Electro-Optical/Infrared programs.						
C. Accomplishments/Planned Programs (\$ in Millions)				FY 2016	FY 2017	FY 2018
Title: Weather System Follow-On Electro-Optical/Infrared (EO/IR)				0.000	0.000	9.500
Description: WSF EO/IR (WSF-E) acquisition will follow standard SMC satellite acquisition processes. The Air Force intends to pursue a full and open competition with industry aimed at procuring the most affordable and capable WSF-E system to meet both capability gaps 1 (cloud characterization) & 2 (theater weather imagery). Includes program office and other related support activities that may include, but are not limited to studies, technical analysis, and risk reduction activities etc.						
FY 2016 Accomplishments: N/A						
FY 2017 Plans: N/A						
FY 2018 Plans: Risk reduction, pre-acquisition activities and Request for Proposal (RFP) for WSF-E. Continue to address secondary weather gaps identified in the Meteorological and Oceanographic (METOC) Initial Capabilities Document (ICD).						
Title: Weather System Follow-On Geostationary (WSF-G)				0.000	0.000	0.500
Description: Residual Geostationary Operational Environmental Satellite (GOES)Relocation is a Department of Defense(DoD) weather mitigation plan to address Space-based Environmental Monitoring (SBEM) Weather Gaps 1 (Cloud						

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Appropriation/Budget Activity 3600: <i>Research, Development, Test & Evaluation, Air Force I BA 4: Advanced Component Development & Prototypes (ACD&P)</i>				R-1 Program Element (Number/Name) PE 1203710F I <i>EO/IR Weather Systems</i>							
C. Accomplishments/Planned Programs (\$ in Millions) Characterization) and Gap 2 (Theater Weather Imagery) requirements over the Indian Ocean region. The requirements have been validated by the Joint Requirements Oversight Council (JROC) Memo 033-16. The program will leverage a spare National Oceanic and Atmospheric Agency (NOAA) on-orbit geostationary asset for the DoD use, in order to provide timely and reliable high-quality electro-optical/infrared (EO/IR) remote sensing capability that will address the critical weather data needs over the Central Command (CENTCOM) Area of Responsibility (AoR). Includes program office and other related support activities that may include, but are not limited to studies, technical analysis, and risk reduction activities etc. Continue to address secondary weather gaps identified in the Meteorological and Oceanographic (METOC) Initial Capabilities Document (ICD). FY 2016 Accomplishments: N/A FY 2017 Plans: N/A FY 2018 Plans: Risk reduction, pre-acquisition activities and Request for Proposal (RFP) release for WSF-G.							FY 2016	FY 2017	FY 2018		
Accomplishments/Planned Programs Subtotals							0.000	0.000	10.000		
D. Other Program Funding Summary (\$ in Millions)											
<u>Line Item</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u> <u>Base</u>	<u>FY 2018</u> <u>OCO</u>	<u>FY 2018</u> <u>Total</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• N/A: N/A	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-	-
Remarks											
E. Acquisition Strategy The acquisition strategy for WSF-E and WSF-G is based on validated SBEM AoA and Joint Requirements Oversight Council (JROC Memo 033-16) and subsequent acquisition strategy development activities that will be conducted in FY18.											
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: FY 2018 Air Force													Date: May 2017		
Appropriation/Budget Activity 3600 / 4						R-1 Program Element (Number/Name) PE 1203710F / EO/IR Weather Systems				Project (Number/Name) 643730 / EO/IR Weather System Dev					
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
Pre-Acquisition Activities	Various	Various : Various	-	0.000		0.000		9.000	Feb 2018	0.000		9.000	Continuing	Continuing	-
Subtotal			-	0.000		0.000		9.000		0.000		9.000	-	-	-
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
Subtotal			-	-		-		-		-		-	-	-	-
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
Subtotal			-	-		-		-		-		-	-	-	-
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
Other Support	Various	Various : Various	-	0.000		0.000		1.000	Oct 2017	0.000		1.000	Continuing	Continuing	-
Subtotal			-	0.000		0.000		1.000		0.000		1.000	-	-	-
			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			-	0.000		0.000		10.000		0.000		10.000	-	-	-
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: FY 2018 Air Force																Date: May 2017			
Appropriation/Budget Activity								R-1 Program Element (Number/Name)								Project (Number/Name)			
3600 / 4								PE 1203710F / EO/IR Weather Systems								643730 / EO/IR Weather System Dev			

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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 1203710F / EO/IR Weather Systems	Project (Number/Name) 643730 / EO/IR Weather System Dev	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
WSF pre-acquisition activities	1	2018	4	2018