Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Air Force											Date: February 2015	
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 0604422F / *Weather System Follow-on*							
COST ($ in Millions)	**Prior Years**	**FY 2014**	**FY 2015**	**FY 2016 Base**	**FY 2016 OCO**	**FY 2016 Total**	**FY 2017**	**FY 2018**	**FY 2019**	**FY 2020**	**Cost To Complete**	**Total Cost**
Total Program Element	123.681	-	39.901	76.108	-	76.108	109.623	136.994	141.343	139.406	89.000	856.056
644289: *Weather Satellite Follow-On*	123.681	-	39.901	76.108	-	76.108	109.623	136.994	141.343	139.406	89.000	856.056
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		
Program MDAP/MAIS Code: 488												

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.

Based on completion of the Space-Based Environmental Monitoring (SBEM) Analysis of Alternatives (AoA), capabilities will be developed to satisfy weather gaps for which no known mitigation exists to include Ocean Surface Vector Winds, Tropical Cyclone Intensity, and Low Earth Orbit Energetic Charged Particles. 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) Timely weather collection over broad oceans in support of maneuvering forces;
3) Space weather capabilities to characterize operational orbits, space situational awareness, and the ionosphere.

WSF will deliver one space vehicle in 2021. Secondary investments may be supported to address weather gaps identified in the SBEM AoA and validated by the Joint Requirements Oversight Council.

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.

Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Air Force		Date: February 2015
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 0604422F / *Weather System Follow-on*	

B. Program Change Summary ($ in Millions)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Previous President's Budget	-	39.901	76.614	-	76.614
Current President's Budget	-	39.901	76.108	-	76.108
Total Adjustments	-	-	-0.506	-	-0.506
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments	-	-	-0.506	-	-0.506

Change Summary Explanation

FY16: -$0.506M for non-pay inflation reduction

C. Accomplishments/Planned Programs ($ in Millions)	FY 2014	FY 2015	FY 2016
Title: WSF	-	39.901	76.108
Description: The Weather System Follow-on (WSF) is the Department of Defense's weather system. The program will be comprised of a group of systems to provide timely, reliable, and high quality remote sensing capabilities that will make global environmental observations of atmospheric, terrestrial, oceanographic, and solar-geophysical conditions and meet other requirements validated by the Joint Staff.			
FY 2014 Accomplishments: N/A			
FY 2015 Plans: Conduct requirements development, definition and analysis. Perform acquisition planning and development for a Milestone A review in FY15/16. Begin sensor interface design and development to cover mission area capability gaps as identified in the SBEM AoA. Initiate operational design study for Compact Ocean Wind Vector Radiometer. Fund program support activities.			
FY 2016 Plans: Secure JROC validation of the WSF Capabilities Development Document (CDD) and Milestone Decision Authority (MDA) Milestone A decision. Release RFP for sensor technology maturation and satellite bus risk reduction. Begin ground processing system upgrades to ingest civil and international partner data. Perform acquisition planning and development for a Milestone B.			
Accomplishments/Planned Programs Subtotals	-	39.901	76.108

Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Air Force	Date: February 2015
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 0604422F / *Weather System Follow-on*

D. Other Program Funding Summary ($ in Millions)

N/A

Remarks

E. Acquisition Strategy

DoD established WSF as a Pre-Major Defense Acquisition Program (MDAP). The acquisition strategy for WSF will be informed by review and validation of the SBEM AoA results and the acquisition strategy development activities to be conducted in FY15.

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: PB 2016 Air Force			Date: February 2015
Appropriation/Budget Activity 3600 / 4	R-1 Program Element (Number/Name) PE 0604422F / *Weather System Follow-on*	Project (Number/Name) 644289 / *Weather Satellite Follow-On*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
WSF Space Segment	TBD	TBD : TBD,	0.000	-		30.220	Aug 2015	60.085	Aug 2016	-		60.085	524.457	614.762	-
WSF Ground Segment	TBD	TBD : TBD,	0.000	-		2.110	Jan 2015	6.945	Jan 2016	-		6.945	34.181	43.236	-
Microwave: Modify Legacy GMI Sensor Design	SS/CPFF	Ball Aerospace and Technologies Corp : Boulder, CO	5.794	-		-		-		-		-	-	5.794	-
Microwave: Sensor Design Trades & Demonstration	SS/CPFF	Boeing Company Space and Intelligence Systems : El Segundo, CA	2.811	-		-		-		-		-	-	2.811	-
Sys/Spacecraft: Hosted Payload on Highly Eliptical Orbit Study	SS/CPFF	Loral Space Communications : Palo Alto, CA	1.000	-		-		-		-		-	-	1.000	-
Microwave:Research Concepts to Decrease MW Sensors size	SS/CPFF	JPL : Pasadena, CA	1.796	-		-		-		-		-	-	1.796	-
Systems/Spacecraft: Small Space Vehicle Options Study	SS/CPFF	Orbital Sciences Corp : Los Angeles, CA	3.545	-		-		-		-		-	-	3.545	-
WSF requirements analysis, risk reduction, and early pre-acquisition activities	SS/ Various	Various : ,	25.615	-		-		-		-		-	-	25.615	-
EO/IR - Advanced Very High Resolution Radiometer (AVHRR) Sensor Design Update/ Demo	SS/CPFF	ITT Exelis : Fort Wayne, IN	12.706	-		-		-		-		-	-	12.706	-
Electro-Optical/Infra-red (EO/IR) - Lightweight COTS	SS/CPFF	Johns Hopkins U Applied Physics Lab : Laurel, MD	8.844	-		-		-		-		-	-	8.844	-
Systems/Spacecraft: Net-Centric Architecture study	SS/CPFF	Alliant Techsystems, Incorporated : Beltsville, MD	5.983	-		-		-		-		-	-	5.983	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Air Force			Date: February 2015
Appropriation/Budget Activity 3600 / 4	R-1 Program Element (Number/Name) PE 0604422F / *Weather System Follow-on*	Project (Number/Name) 644289 / *Weather Satellite Follow-On*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
System/Spacecraft: Ground Architecture Alternatives	SS/CPFF	Harris Government Communications Systems Division : Melbourne, FL	2.034	-		-		-		-		-	-	2.034	-
Systems/Spacecraft: Flight-proven Class C mission bus	SS/FP	Millennium Space Systems : Torrance, CA	1.944	-		-		-		-		-	-	1.944	-
Sys/Spacecraft: Weather Architecture Trade Studies	SS/FP	U.S. Space LLC : Dulles, VA	1.592	-		-		-		-		-	-	1.592	-
Sys/Spacecraft: High-TRL Sensor for Space Weather	SS/CPFF	Johns Hopkins U Applied Physics Lab : Laurel, MD	2.997	-		-		-		-		-	-	2.997	-
Systems/Spacecraft: Leverage OPIR Data from Commercially Hosted Infra-red Payload (CHIRP)	SS/CPFF	SAIC : Seal Beach, CA	0.982	-		-		-		-		-	-	0.982	-
Microwave:Compact MW Sensor Study for Ocean Surface Vector Wind	SS/CPFF	JPL : Pasadena, CA	1.584	-		-		-		-		-	-	1.584	-
Spacecraft Risk Reduction Effort/Space Weather Launch Vehicle integration	SS/FP	Space Exploration Technology Corporation : Hawthorne, CA	3.030	-		-		-		-		-	-	3.030	-
Dosimeter Study - low cost Particle Counter	Various	Various : Various,	4.275	-		-		-		-		-	-	4.275	-
Risk Reduction - Microwave Sensor Activities	MIPR	Naval Research Laboratory : Washington, DC	9.900	-		-		-		-		-	-	9.900	-
Analysis of Alternatives (AoA) activities	Various	AFSPC/A5 : Peterson AFB, CO	7.000	-		-		-		-		-	-	7.000	-
		Subtotal	103.432	-		32.330		67.030		-		67.030	558.638	761.430	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Air Force			Date: February 2015
Appropriation/Budget Activity 3600 / 4	R-1 Program Element (Number/Name) PE 0604422F / *Weather System Follow-on*	Project (Number/Name) 644289 / *Weather Satellite Follow-On*	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Systems Engineering & Integration	TBD	Various : ,	0.000	-		-		-		-		-	-	-	-
Requirements/Engineering Analysis Support	MIPR	Defense Information Technical Center (DTIC)/Surviac Contract : Los Angeles, CA	1.500	-		-		-		-		-	-	1.500	-
Engineering Risk Reduction Studies	Various	Various : ,	1.171	-		-		-		-		-	-	1.171	-
		Subtotal	2.671	-		-		-		-		-	-	2.671	-

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Not specified.	TBD	Not specified. : ,	0.000	-		-		-		-		-	-	-	-
		Subtotal	0.000	-		-		-		-		-	-	-	-

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Systems Engineering	MIPR	Aerospace : Los Angeles, CA	11.863	-		5.100	Oct 2014	6.115	Oct 2015	-		6.115	38.887	61.965	-
Program Office Support	Various	Various : ,	5.378	-		1.971	Nov 2014	2.363	Nov 2015	-		2.363	15.029	24.741	-
Business Operations Support	Various	Various : ,	0.337	-		0.500	Nov 2014	0.600	Nov 2015	-		0.600	3.812	5.249	-
		Subtotal	17.578	-		7.571		9.078		-		9.078	57.728	91.955	-

	Prior Years	FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	123.681	-		39.901		76.108		-		76.108	616.366	856.056	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Air Force			Date: February 2015
Appropriation/Budget Activity 3600 / 4	R-1 Program Element (Number/Name) PE 0604422F / *Weather System Follow-on*	Project (Number/Name) 644289 / *Weather Satellite Follow-On*	

	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2016 Air Force		Date: February 2015
Appropriation/Budget Activity 3600 / 4	**R-1 Program Element (Number/Name)** PE 0604422F / *Weather System Follow-on*	**Project (Number/Name)** 644289 / *Weather Satellite Follow-On*

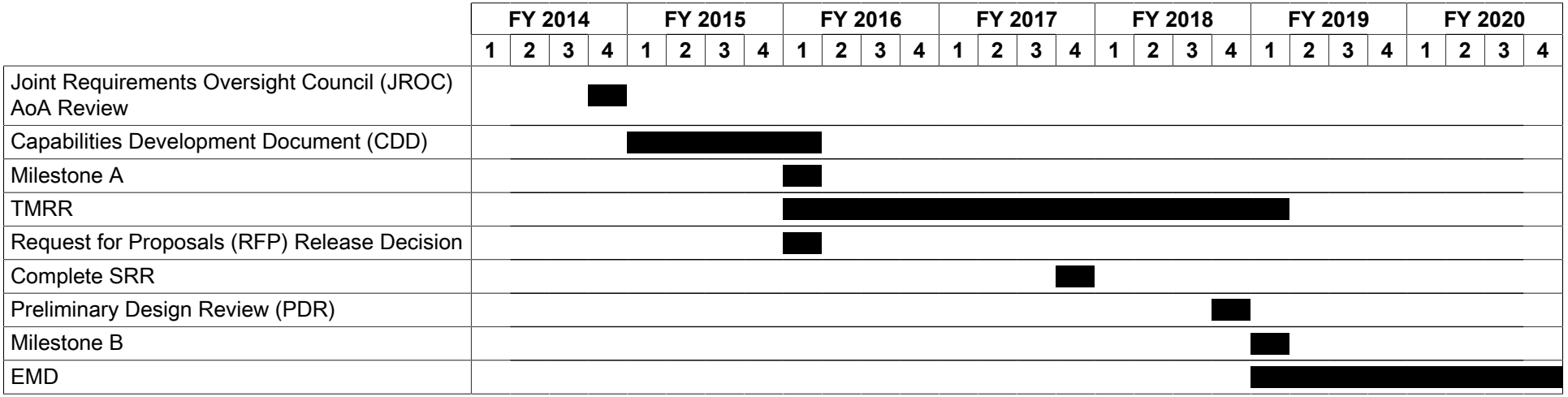

Exhibit R-4A, RDT&E Schedule Details: PB 2016 Air Force		Date: February 2015
Appropriation/Budget Activity 3600 / 4	**R-1 Program Element (Number/Name)** PE 0604422F / *Weather System Follow-on*	**Project (Number/Name)** 644289 / *Weather Satellite Follow-On*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Joint Requirements Oversight Council (JROC) AoA Review	4	2014	4	2014
Capabilities Development Document (CDD)	1	2015	1	2016
Milestone A	1	2016	1	2016
TMRR	1	2016	1	2019
Request for Proposals (RFP) Release Decision	1	2016	1	2016
Complete SRR	4	2017	4	2017
Preliminary Design Review (PDR)	4	2018	4	2018
Milestone B	1	2019	1	2019
EMD	1	2019	4	2020