

UNCLASSIFIED

PE NUMBER: 0305111F
 PE TITLE: WEATHER SERVICE

Exhibit R-2, RDT&E Budget Item Justification								DATE February 2008	
BUDGET ACTIVITY 07 Operational System Development				PE NUMBER AND TITLE 0305111F WEATHER SERVICE					
Cost (\$ in Millions)	FY 2007 Actual	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate	Cost to Complete	Total
Total Program Element (PE) Cost	41.676	40.959	47.347	42.906	38.504	39.002	40.196	Continuing	TBD
2738 Weather Service	41.676	40.959	47.347	42.906	38.504	39.002	40.196	Continuing	TBD

(U) A. Mission Description and Budget Item Justification

This budget activity funds operational development necessary to acquire, modify, and sustain segments of the Air Force Weather Weapon System (AFWWS). The AFWWS provides timely, accurate, consistent and relevant space and terrestrial weather information for battlespace situational awareness. The AFWWS supports worldwide operations of Air Force and Army warfighters, Special Operation Forces (SOF), and other government agencies with weather observing and forecasting capabilities at in-garrison and deployed locations. Air Force Weather (AFW) programs are aligned under the five capability areas of Weather Data Collection (WDC), Weather Data Analysis (WDA), Weather Forecasting, Product Tailoring/Warfighter Applications (PT/WA), and Weather Dissemination (relies on Commercial-off-the-Shelf products and so does not use RDT&E funding). Through this alignment, AFW ensures an integrated and systems-oriented approach to program management decisions.

WDC provides automated terrestrial and space environmental sensing capabilities at fixed and deployed locations worldwide. WDA provides a net-centric infrastructure that assimilates worldwide sources of space and terrestrial weather data and produces decision-quality information for warfighters. Weather Forecasting provides advanced scientific numerical weather prediction capabilities for automated, high resolution forecast products for mission planning, rehearsal, and execution. Additionally, WDA and Forecasting capabilities will be expanded to integrate and exploit data from a new generation of environmental sensing satellites. PT/WA provides timely, target-scale weather information to operational commanders for a given Area of Responsibility, and at tactical levels, provides front-line weather information to warfighters in support of combat operations. PT/WA supports the 'train as you fight' concept by assuring fixed and deployable systems have a similar look and feel.

This effort is in Budget Activity 7, Operational System Development, because it supports operational software development and system tests associated with the upgrade and replacement of currently operational systems, systems already in production, and systems with approved production funds in the DoD budget.

Exhibit R-2, RDT&E Budget Item Justification

DATE

February 2008

BUDGET ACTIVITY

07 Operational System Development

PE NUMBER AND TITLE

0305111F WEATHER SERVICE

(U) **B. Program Change Summary (\$ in Millions)**

	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
(U) Previous President's Budget	35.701	39.747	47.347
(U) Current PBR/President's Budget	41.676	40.959	47.347
(U) Total Adjustments	5.975		
(U) Congressional Program Reductions		-0.127	
Congressional Rescissions		-0.261	
Congressional Increases	1.000	1.600	
Reprogrammings	4.975		
SBIR/STTR Transfer			

(U) **Significant Program Changes:**

In FY08: Congressional plus-up of \$800K for Operational Risk Management (ORM) visualization and integration and \$800K for Tropospheric Airborne Meteorological Data Reporting (TAMDAR) system integration and performance evaluation on UAS.

Exhibit R-2a, RDT&E Project Justification

DATE
February 2008

BUDGET ACTIVITY 07 Operational System Development				PE NUMBER AND TITLE 0305111F WEATHER SERVICE			PROJECT NUMBER AND TITLE 2738 Weather Service		
Cost (\$ in Millions)	FY 2007 Actual	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate	Cost to Complete	Total
2738 Weather Service	41.676	40.959	47.347	42.906	38.504	39.002	40.196	Continuing	TBD
Quantity of RDT&E Articles	0	0	0	0	0	0	0		

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(U) B. Accomplishments/Planned Program (\$ in Millions)

	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
(U) Accomplishments/Planned Program			
(U) WDC: Includes but is not limited to AF participation with National Weather Service and Federal Aviation Administration in Product Improvement Plans for automated weather sensors and the Next Generation Weather Radar.	0.338	0.338	0.338
(U) WDA: Continues incremental software development and integration of enhanced analysis capabilities including processing of data from a new generation of environmental sensing satellites.	12.006	9.863	10.740
(U) Forecasting: Continues integration of advanced terrestrial and space weather forecast capabilities including exploitation of a new generation of environmental sensing satellites.	14.082	12.690	15.906
(U) PT/WA: Continues software development and integration of regional and tactical weather systems and integration with warfighter C4I systems. In FY08/09 realigned funds within PE 0305111F in response to government cost	14.250	17.268	20.363

Exhibit R-2a, RDT&E Project Justification

DATE

February 2008

BUDGET ACTIVITY 07 Operational System Development	PE NUMBER AND TITLE 0305111F WEATHER SERVICE	PROJECT NUMBER AND TITLE 2738 Weather Service
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(U) <u>B. Accomplishments/Planned Program (\$ in Millions)</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
estimates and March 06 contract award--no increase in total program funding.			
(U) Airborne Meteorological Data Reporting Modernization: Develops airborne weather sensors on Unmanned Aerial Vehicles (UAVs)	1.000	0.800	
(U) Total Cost	41.676	40.959	47.347

(U) <u>C. Other Program Funding Summary (\$ in Millions)</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>Cost to</u>	<u>Total Cost</u>
	<u>Actual</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Complete</u>	
(U) Other Procurement, AF, Weather Service (PE 0305111F WSC 833070, 838010, and 86190A)	48.311	54.005	60.130	45.785	46.331	43.982	42.140	Continuing	TBD
(U) Operations and Maintenance	135.066	142.978	148.236	156.044	157.384	160.524	164.388	Continuing	TBD

(U) **D. Acquisition Strategy**
 AFWWS employs an incremental development strategy with a series of incremental Initial Operational Capabilities (IOCs) and software releases to enable rapid development and fielding of capabilities using full and open competition.

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis

DATE

February 2008

BUDGET ACTIVITY				PE NUMBER AND TITLE					PROJECT NUMBER AND TITLE				
07 Operational System Development				0305111F WEATHER SERVICE					2738 Weather Service				
(U) <u>Cost Categories</u> (Tailor to WBS, or System/Item Requirements) (\$ in Millions)	<u>Contract Method & Type</u>	<u>Performing Activity & Location</u>	<u>Total</u> <u>Prior to FY</u> <u>2007</u> <u>Cost</u>	<u>FY 2007</u> <u>Cost</u>	<u>FY 2007</u> <u>Award</u> <u>Date</u>	<u>FY 2008</u> <u>Cost</u>	<u>FY 2008</u> <u>Award</u> <u>Date</u>	<u>FY 2009</u> <u>Cost</u>	<u>FY 2009</u> <u>Award</u> <u>Date</u>	<u>Cost to</u> <u>Complete</u>	<u>Total Cost</u>	<u>Target Value</u> <u>of Contract</u>	
(U) <u>Product Development</u>													
Northrop Grumman	C/CPAF	Bellevue, NE		5.752	Nov-06	2.427	Jan-08	2.417	Nov-08	Continuing	TBD	TBD	
Raytheon Technical Services	C/CPFF	Bellevue, NE		7.664	Nov-06	6.212	May-08	7.600	Nov-08	Continuing	TBD	TBD	
Raytheon Information & Intelligence Systems	C/CPAF	Bellevue, NE		10.668	Jan-07	13.803	Jan-08	16.000	Nov-08	Continuing	TBD	TBD	
National Center for Atmospheric Research	MIPR	Boulder, CO		4.523	Jan-07	3.702	Jan-08	8.314	Jan-09	Continuing	TBD	TBD	
National Aeronautics & Space Administration	MIPR	Greenbelt, MD		0.461	Jan-07	1.805	Jan-08	2.800	Jan-09	Continuing	TBD	TBD	
University Corporation for Atmospheric Research	MIPR	Boulder, CO						1.200	Jan-09		1.200		
Various	various	various		10.155	Oct-06	10.467	Oct-07	5.156	Oct-08	Continuing	TBD	TBD	
Subtotal Product Development			0.000	39.223		38.416		43.487		Continuing	TBD	TBD	
Remarks:													
(U) <u>Management</u>													
Electronic Systems Center		Hanscom AFB, MA		2.143	Oct-06	1.960	Oct-07	3.003	Oct-08	Continuing	TBD	TBD	
Space & Missile Systems Center		Los Angeles AFB, CA		0.020	Oct-06	0.020	Oct-07	0.020	Oct-08	Continuing	TBD	TBD	
Air Force Research Laboratory		Hanscom AFB, MA		0.290	Oct-06					Continuing	TBD	TBD	
Air Force Research Laboratory		Rome Labs, NY				0.563	Oct-07	0.837	Oct-08		1.400		
Subtotal Management			0.000	2.453		2.543		3.860		Continuing	TBD	TBD	
Remarks:													
(U) Total Cost			0.000	41.676		40.959		47.347		Continuing	TBD	TBD	

Exhibit R-4, RDT&E Schedule Profile

DATE
February 2008

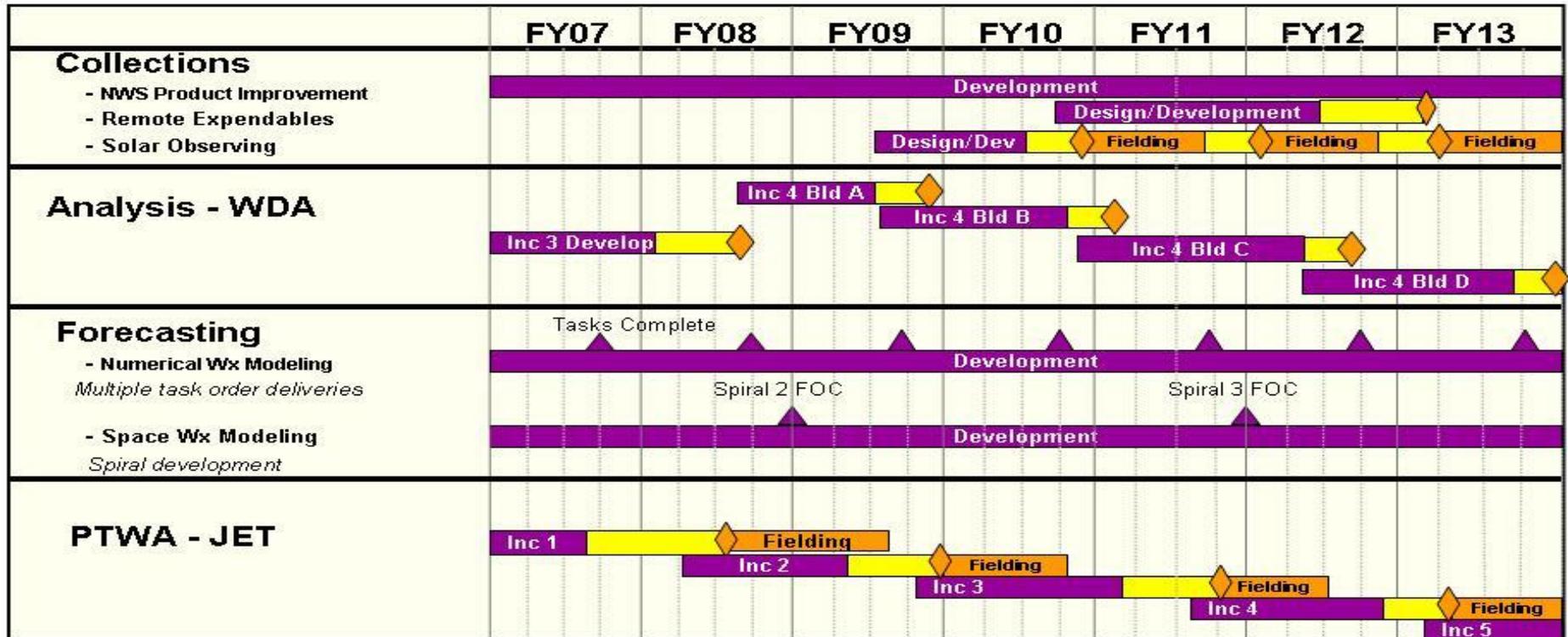
BUDGET ACTIVITY
07 Operational System Development

PE NUMBER AND TITLE
0305111F WEATHER SERVICE

PROJECT NUMBER AND TITLE
2738 Weather Service

PE 0305111F Weather Service

As of Jan 08



Note: NWS product improvements, Forecasting, and SWAFS are operational and being upgraded through incremental development activities.



Exhibit R-4a, RDT&E Schedule Detail

DATE

February 2008

BUDGET ACTIVITY 07 Operational System Development	PE NUMBER AND TITLE 0305111F WEATHER SERVICE	PROJECT NUMBER AND TITLE 2738 Weather Service
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(U) <u>Schedule Profile</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
(U) WDC NWS Product Improvement Effort (Note 1)	1-4Q	1-4Q	1-4Q
(U) WDA Increment 3 Delivery		3Q	
(U) WDA Increment 4 Build A Delivery			4Q
(U) Forecasting Tasks Complete	3Q	3Q	3Q
(U) Forecasting - SWAFS Spiral 2 Full Operational Capability		4Q	
(U) PT/WA - JET Increment 1 IOC		4Q	
(U) PT/WA - JET Increment 2 IOC			4Q

Note 1: AF participation with National Weather Service (NWS) and Federal Aviation Administration (FAA) in Product Improvement Plans for automated weather sensors and the Next Generation Weather Radar (NEXRAD).