

**Exhibit 300: Capital Asset Plan and Business Case Summary**

**Part I: Summary Information And Justification (All Capital Assets)**

**Section A: Overview (All Capital Assets)**

1. Date of Submission: 7/30/2007
2. Agency: Department of Transportation
3. Bureau: Federal Aviation Administration
4. Name of this Capital Asset: FAAXX016: Integrated Terminal Weather System (ITWS)
5. Unique Project (Investment) Identifier: (For IT investment only, see section 53. For all other, use agency ID system.) 021-12-01-21-01-1010-00
6. What kind of investment will this be in FY2009? (Please NOTE: Investments moving to O&M in FY2009, with Planning/Acquisition activities prior to FY2009 should not select O&M. These investments should indicate their current status.) Mixed Life Cycle
7. What was the first budget year this investment was submitted to OMB? FY2004
8. Provide a brief summary and justification for this investment, including a brief description of how this closes in part or in whole an identified agency performance gap:

ITWS uses new technology to provide air traffic controllers and traffic managers essential weather information by integrating data from multiple sources and using sophisticated algorithms to provide easy-to-understand, immediately useable weather products on color graphic displays. ITWS supports DOT's Mobility goal of increasing reliability throughout the air traffic control (ATC) system, and by 2008, of increasing the percentage of flights arriving on time to 83.6 percent. ITWS helps close the performance gap of the FAA's Greater Capacity goal, Objective 1: Increase airport capacity to meet projected demand, Strategy 1: Improve technologies to make air traffic flow more efficiently during periods of adverse weather. ITWS is used at all levels of FAA ATC facilities, and by the airlines, to reduce weather delays and for collaborative decision-making.

The Planning phase began in FY1994 and ended in FY2007 when the four ITWS prototypes were replaced by production systems. The Acquisition phase began in FY1995 and a development contract with production options was competitively awarded to Raytheon in FY1997. The Maintenance phase began in FY2003 with First Operational Readiness Demonstration (ORD). In 2007, the JRC updated the ITWS baseline to include 12 systems deferred in a May 2004 Rebaseline, add remote ITWS service at 25 secondary/reliever airports, and support planning to evolve ITWS into the Next Generation ATC system (NextGen) and System Wide Information Management (SWIM), all within the existing cost baseline. In FY2007 six systems will be installed and five will be commissioned. Hardware for the 12 systems will be procured in FY2007 and FY2008. In FY2008, six systems will be installed, five commissioned, and a JRC for additional requirements and a Tech Refresh program consistent with the NextGen roadmap and NAS enterprise architecture is planned. The FY2009 request funds installation of 8 systems, commissioning of 9 systems, and installation of displays and communications at the remotely-served airports. Software development for the ITWS SWIM gateway will begin (funded by SWIM), and concept demonstrations of potential NextGen weather capabilities and weather system integration initiatives will begin.
9. Did the Agency's Executive/Investment Committee approve this request? Yes
  - a. If "yes," what was the date of this approval? 9/19/2007
10. Did the Project Manager review this Exhibit? Yes
11. Contact information of Project Manager?

Name Benn Deans  
Phone Number Redacted  
Email benn.deans@faa.gov

  - a. What is the current FAC-P/PM certification level of the project/program manager? TBD
12. Has the agency developed and/or promoted cost effective, energy-efficient and environmentally sustainable techniques or practices for this project? Yes
  - a. Will this investment include electronic assets Yes

(including computers)?

b. Is this investment for new construction or major retrofit of a Federal building or facility? (answer applicable to non-IT assets only) No

1. If "yes," is an ESPC or UESC being used to help fund this investment?

2. If "yes," will this investment meet sustainable design principles?

3. If "yes," is it designed to be 30% more energy efficient than relevant code?

13. Does this investment directly support one of the PMA initiatives? No

If "yes," check all that apply:

a. Briefly and specifically describe for each selected how this asset directly supports the identified initiative(s)? (e.g. If E-Gov is selected, is it an approved shared service provider or the managing partner?)

14. Does this investment support a program assessed using the Program Assessment Rating Tool (PART)? (For more information about the PART, visit [www.whitehouse.gov/omb/part](http://www.whitehouse.gov/omb/part).) Yes

a. If "yes," does this investment address a weakness found during a PART review? No

b. If "yes," what is the name of the PARTed program?

c. If "yes," what rating did the PART receive?

15. Is this investment for information technology? Yes

If the answer to Question 15 is "Yes," complete questions 16-23 below. If the answer is "No," do not answer questions 16-23.

For information technology investments only:

16. What is the level of the IT Project? (per CIO Council PM Guidance) Level 2

17. What project management qualifications does the Project Manager have? (per CIO Council PM Guidance) (1) Project manager has been validated as qualified for this investment

18. Is this investment or any project(s) within this investment identified as "high risk" on the Q4 - FY 2007 agency high risk report (per OMB Memorandum M-05-23) No

19. Is this a financial management system? No

a. If "yes," does this investment address a FFMIA compliance area? No

1. If "yes," which compliance area:

2. If "no," what does it address?

b. If "yes," please identify the system name(s) and system acronym(s) as reported in the most recent financial systems inventory update required by Circular A-11 section 52

20. What is the percentage breakout for the total FY2009 funding request for the following? (This should total 100%)

Hardware	12.000000
Software	1.000000
Services	87.000000
Other	0.000000

21. If this project produces information dissemination products for the public, are these products published to the Internet in conformance with OMB Memorandum 05-04 and included in your agency inventory, schedules and priorities? N/A

22. Contact information of individual responsible for privacy related questions:

Name Mauney, Carla

Phone Number Redacted  
 Title FAA Privacy Officer  
 E-mail carla.mauney@faa.gov

23. Are the records produced by this investment appropriately scheduled with the National Archives and Records Administration's approval? Yes

Question 24 must be answered by all Investments:

24. Does this investment directly support one of the GAO High Risk Areas? Yes

**Section B: Summary of Spending (All Capital Assets)**

1. Provide the total estimated life-cycle cost for this investment by completing the following table. All amounts represent budget authority in millions, and are rounded to three decimal places. Federal personnel costs should be included only in the row designated "Government FTE Cost," and should be excluded from the amounts shown for "Planning," "Full Acquisition," and "Operation/Maintenance." The "TOTAL" estimated annual cost of the investment is the sum of costs for "Planning," "Full Acquisition," and "Operation/Maintenance." For Federal buildings and facilities, life-cycle costs should include long term energy, environmental, decommissioning, and/or restoration costs. The costs associated with the entire life-cycle of the investment should be included in this report.

Table 1: SUMMARY OF SPENDING FOR PROJECT PHASES (REPORTED IN MILLIONS)									
(Estimates for BY+1 and beyond are for planning purposes only and do not represent budget decisions)									
	PY-1 and earlier	PY 2007	CY 2008	BY 2009	BY+1 2010	BY+2 2011	BY+3 2012	BY+4 and beyond	Total
Planning:	59.459	0.456	0.409	0.412	Redacted	Redacted	Redacted	Redacted	Redacted
Acquisition:	180.529	19.744	11.991	3.238	Redacted	Redacted	Redacted	Redacted	Redacted
Subtotal Planning & Acquisition:	239.988	20.200	12.400	3.650	Redacted	Redacted	Redacted	Redacted	Redacted
Operations & Maintenance:	5.656	1.837	1.704	2.355	Redacted	Redacted	Redacted	Redacted	Redacted
TOTAL:	245.644	22.037	14.104	6.005	Redacted	Redacted	Redacted	Redacted	Redacted
<b>Government FTE Costs should not be included in the amounts provided above.</b>									
Government FTE Costs	10.96	2.868	2.855	3.324	Redacted	Redacted	Redacted	Redacted	Redacted
Number of FTE represented by Costs:	82	26	24	27	Redacted	Redacted	Redacted	Redacted	Redacted

Note: For the multi-agency investments, this table should include all funding (both managing partner and partner agencies). Government FTE Costs should not be included as part of the TOTAL represented.

2. Will this project require the agency to hire additional FTE's? No

a. If "yes," How many and in what year?

3. If the summary of spending has changed from the FY2008 President's budget request, briefly explain those changes:  
 Redacted

**Section C: Acquisition/Contract Strategy (All Capital Assets)**

1. Complete the table for all (including all non-Federal) contracts and/or task orders currently in place or planned for this investment. Total Value should include all option years for each contract. Contracts and/or task orders completed do not need to be included.

Exhibit 300: FAAXX013: Automated Surface Observing System / Automated Weather Observing System (ASOS/AWOS) (Revision 12)

Contracts/Task Orders Table:															* Costs in millions	
Contract or Task Order Number	Type of Contract/ Task Order	Has the contract been awarded (Y/N)	If so what is the date of the award? If not, what is the planned award date?	Start date of Contract/ Task Order	End date of Contract/ Task Order	Total Value of Contract/ Task Order (\$M)	Is this an Interagency Acquisition ? (Y/N)	Is it performance based? (Y/N)	Competitively awarded? (Y/N)	What, if any, alternative financing option is being used? (ESPC, UESC, EUL, N/A)	Is EVM in the contract? (Y/N)	Does the contract include the required security & privacy clauses? (Y/N)	Name of CO	CO Contact information (phone/email)	Contracting Officer Certification Level (Level 1,2,3,N/A)	If N/A, has the agency determined the CO assigned has the competencies and skills necessary to support this acquisition ? (Y/N)
Redacted																

2. If earned value is not required or will not be a contract requirement for any of the contracts or task orders above, explain why:

Earned Value Management (EVM) will be applied to the entire ITWS Program beginning in FY2008. EVM has been a requirement for the ITWS prime contract and has been practiced on the Acquisition phase of this investment since the contract was awarded to Raytheon in 1997. An independent internal FAA assessment of the ITWS EVM program was completed in June 2005 and rated the ITWS program "Green" in all 5 assessment areas for the prime contractor only, Raytheon. The FAA review rigorously assessed the program's current EVM implementation using FAA approved compliance criteria aligned with the ANSI/EIA Standard 748-A. The assessment recommended EVM practices be strengthened on the investment's non-prime contracts. As a result, the project team implemented a Plan of Actions and Milestones (POA&M) to achieve compliance with the review's recommendations by the end of 2006 without renegotiation the legacy support contracts. However, implementation has been delayed as FAA guidance for EVMS application to non-prime contractor activities was developed. A May 2007 EVM assessment rated ITWS as "Red". The program has developed a mitigation plan to initiate a strategy and commit the necessary resources to move forward with planning and developing and EVMS encompassing prime and non-prime contractors and government FTEs. ITWS will support the EVM requirements by completing and passing each of the 5 major categories of the program management process using earned value management. The program will continue to improve the EVM processes and procedures to achieve a Green assessment for ITWS and become ANSI EIA-748 compliant. Non-prime contractors have agreed to provide EVM data and variance reports without changing their contracts.

3. Do the contracts ensure Section 508 compliance? N/A

a. Explain why: The FAA awarded the ITWS contract on January 29, 1997, prior to June 21, 2001 and therefore the Section 508 standards do not apply to this procurement. The applicability of Section 508 will be analyzed for any future updates in the procurement as appropriate.

4. Is there an acquisition plan which has been approved in accordance with agency requirements? Yes

a. If "yes," what is the date? 8/30/2007

b. If "no," will an acquisition plan be developed?

1. If "no," briefly explain why:

**Section D: Performance Information (All Capital Assets)**

In order to successfully address this area of the exhibit 300, performance goals must be provided for the agency and be linked to the annual performance plan. The investment must discuss the agency's mission and strategic goals, and performance measures (indicators) must be provided. These goals need to map to the gap in the agency's strategic goals and objectives this investment is designed to fill. They are the internal and external performance benefits this investment is expected to deliver to the agency (e.g., improve efficiency by 60 percent, increase citizen participation by 300 percent a year to achieve an overall citizen participation rate of 75 percent by FY 2xxx, etc.). The goals must be clearly measurable investment outcomes, and if applicable, investment outputs. They do not include the completion date of the module, milestones, or investment, or general goals, such as, significant, better, improved that do not have a quantitative or qualitative measure.

Agencies must use the following table to report performance goals and measures for the major investment and use the Federal Enterprise Architecture (FEA) Performance Reference Model (PRM). Map all Measurement Indicators to the corresponding "Measurement Area" and "Measurement Grouping" identified in the PRM. There should be at least one Measurement Indicator for each of the four different Measurement Areas (for each fiscal year). The PRM is available at [www.egov.gov](http://www.egov.gov). The table can be extended to include performance measures for years beyond FY 2009.

Performance Information Table								
Fiscal Year	Strategic Goal(s) Supported	Measurement Area	Measurement Category	Measurement Grouping	Measurement Indicator	Baseline	Target	Actual Results
2005	Mobility	Customer Results	Customer Benefit	Customer Satisfaction	Customer Impacts of Flight Delays caused by convective weather (These impact the airlines, pilots and the flying public).	530,000 Aviation weather delay hours	Reduce aviation passenger delay hours at a total of 21 ITWS airports in operational status by 42500 hours	Reduction of delays for 19 ITWS airports by 33700 hours. Performance will be below goal until FY08 due to delay in deploying two sites.
2005	Mobility	Mission and Business Results	Transportation	Air Transportation	Delay Hours	530,000 Aviation weather delay hours	Reduce aviation delay hours at a total of 21 ITWS airports in by 42500 hours to support DOT and FAA goals to increase arrival rate percentages and improve air traffic flow	Reduction of delays for 19 ITWS Airports by 33700 hours. Performance will be below goal until FY08 due to delay in deploying two sites.

Exhibit 300: FAAXX016: Integrated Terminal Weather System (ITWS) Redacted

Performance Information Table								
Fiscal Year	Strategic Goal(s) Supported	Measurement Area	Measurement Category	Measurement Grouping	Measurement Indicator	Baseline	Target	Actual Results
							during adverse weather.	
2005	Mobility	Processes and Activities	Productivity and Efficiency	Efficiency	Number of ITWS airports with capability.	20 minute convective storm cell prediction for 16 ITWS airports	Provide 20 minutes of storm cell prediction for 5 more ITWS airports for more efficient air traffic flow management during convective weather.	20-minute convective storm cell prediction performance verified by test. Capability at 19 airports. Performance will be below goal until FY08 due to delay in deploying two sites.
2005	Mobility	Technology	Efficiency	Improvement	Number of ITWS Airports with capabilities	Terminal winds for 16 ITWS airports	Terminal Winds for 5 more ITWS airports for improved air traffic flow management during adverse weather.	Performance is tested capability in fielded system. Capability at 19 airports. Performance will be below goal until FY08 due to delay in deploying two sites.
2006	Mobility	Customer Results	Customer Benefit	Customer Satisfaction	Customer Impacts of flight delays hours caused by convective weather	530,000 Aviation weather delay hours	Reduce aviation delay hours at a total of 19 ITWS airports in operational status by 46200 hours	Reduction of delays for 19 ITWS airports by 40600 hours
2006	Mobility	Mission and Business Results	Transportation	Air Transportation	Delay Hours	530,000 Aviation weather delay hours	Reduce aviation delay hours at a total of 19 ITWS airports in operational status by 46200 hours to support DOT and FAA goals to increase arrival rate percentages and improve air traffic flow during adverse weather.	Reduction of delays for 19 ITWS airports by 40600 hours
2006	Mobility	Processes and Activities	Productivity and Efficiency	Efficiency	Number of ITWS airports with storm cell predictions 20 minute convective storm cell prediction capability	20 minute convective storm cell prediction for 19 ITWS airports	Provide 20 minutes of storm cell prediction for more efficient air traffic flow management during convective weather at 19 ITWS airports	Completed. Performance verified by test in FY06. Capability provided at 19 airports
2007	Mobility	Customer Results	Customer Benefit	Customer Complaints				
2007	Mobility	Customer Results	Customer Benefit	Customer Satisfaction	Customer Impacts of flight delays hours caused by convective weather	530,000 Aviation weather delay hours	Reduce aviation delay hours at a total of 31 ITWS airports in operational status by 86900 hours	TBD, Performance measurements will be available by the end of 4Q2008
2007	Mobility	Mission and Business Results	Transportation	Air Transportation	Delay Hours	530,000 Aviation weather delay hours	Reduce aviation delay hours at a total of 31 ITWS airports in operational status by 86900 hours to support DOT and FAA goals to increase arrival rate percentages and improve air traffic flow during adverse weather.	TBD, Performance measurements will be available by the end of 4Q2008

Exhibit 300: FAAXX016: Integrated Terminal Weather System (ITWS) Redacted

Performance Information Table								
Fiscal Year	Strategic Goal(s) Supported	Measurement Area	Measurement Category	Measurement Grouping	Measurement Indicator	Baseline	Target	Actual Results
2007	Mobility	Processes and Activities	Productivity and Efficiency	Efficiency	Number of ITWS airports with storm cell predictions capability	20 minute convective storm cell prediction for 19 ITWS airports	Provide 20 minutes of storm cell prediction for more efficient air traffic flow management during convective weather at 12 more ITWS airports	Completed. Performance verified by test in FY06. On track to provide capability provided at 31 airports by end of FY07
2007	Mobility	Technology	Efficiency	Improvement	Number of ITWS Airports with convective storm prediction capability for 4 ITWS airports	TCWF 60 minute convective storm prediction capability for 4 ITWS airports	Provide TCWF 60 minute Convective Storm prediction for 27 more ITWS airports, including TCWF retrofits at all previously commissioned ITWS sites	Performance verified test in FY 06. On track to provide TCWF capability at 31 airports by the end of FY07.
2007	Mobility	Technology	Efficiency	Improvement	Number of ITWS Airports with Terminal winds capabilities	Terminal winds for 19 ITWS airports	Terminal Winds for 12 more ITWS airports for improved air traffic flow management during adverse weather.	Completed. Performance verified by test in FY06. On track to provide capability at 31 airports by the end of 4QFY007.
2008	Mobility	Customer Results	Customer Benefit	Customer Satisfaction	Customer Impacts of flight delays hours caused by convective weather	530,000 Aviation weather delay hours	Reduce aviation delay hours at a total of 36 ITWS airports in operational status by 128000 hours	TBD, Performance measurements will be available by the end of 4Q2009
2008	Mobility	Mission and Business Results	Transportation	Air Transportation	Delay Hours	530,000 Aviation weather delay hours	Reduce aviation delay hours at a total of 36 ITWS airports in operational status by 128000 hours to support DOT and FAA goals to increase arrival rate percentages and improve air traffic flow during adverse weather.	TBD, Performance measurements will be available by the end of 4Q2009
2008	Mobility	Processes and Activities	Productivity and Efficiency	Efficiency	Number of ITWS airports with storm cell predictions capability	20 minute convective storm cell prediction for 31 ITWS airports	Provide 20 minutes of storm cell prediction for more efficient air traffic flow management during convective weather at 5 more ITWS airports	TBD, Performance verified by test in FY06. Airports with capability to be verified by the end of FY08.
2008	Mobility	Technology	Efficiency	Improvement	Number of ITWS Airports with capabilities	Terminal winds for 31 ITWS airports	Terminal Winds for 5 more ITWS airports for improved air traffic flow management during adverse weather.	TBD, Performance verified by test in FY06. Airports with capability to be verified by the end of FY08.
2008	Mobility	Technology	Efficiency	Improvement	Number of ITWS Airports with capabilities	TCWF 60 minute convective storm prediction capability for 31 ITWS airports	Provide TCWF 60 minute Convective Storm prediction for 5 more ITWS airports	TBD, Performance verified test in FY 06. Airports with capability to be verified by the end of FY08.
2009	Mobility	Customer Results	Customer Benefit	Customer Satisfaction	Customer Impacts of flight delays hours caused by	530,000 Aviation weather delay hours	Reduce aviation delay hours at a total of 45 ITWS airports in	TBD, Performance measurements will be available

Exhibit 300: FAAXX016: Integrated Terminal Weather System (ITWS) Redacted

Performance Information Table								
Fiscal Year	Strategic Goal(s) Supported	Measurement Area	Measurement Category	Measurement Grouping	Measurement Indicator	Baseline	Target	Actual Results
					convective weather		operational status by 169000 hours	by the end of 4Q2010
2009	Mobility	Mission and Business Results	Transportation	Air Transportation	Delay Hours	530,000 Aviation weather delay hours	Reduce aviation delay hours at a total of 45 ITWS airports in operational status by 169000 hours to support DOT and FAA goals to increase arrival rate percentages and improve air traffic flow during adverse weather.	TBD, Performance measurements will be available by the end of 4Q2010
2009	Mobility	Processes and Activities	Productivity and Efficiency	Efficiency	Number of ITWS airports with storm cell predictions capability	20 minute convective storm cell prediction for 36 ITWS airports	Provide 20 minutes of storm cell prediction for more efficient air traffic flow management during convective weather at 9 more ITWS airports	TBD, Performance verified by test in FY06. Airports with capability to be verified by the end of FY09.
2009	Mobility	Technology	Efficiency	Improvement	Number of ITWS Airports with capabilities	Terminal winds for 36 ITWS airports	Terminal Winds for 9 more ITWS airports for improved air traffic flow management during adverse weather.	TBD, Performance verified by test in FY06. Airports with capability to be verified by the end of FY09.
2009	Mobility	Technology	Efficiency	Improvement	Number of ITWS Airports with capabilities	TCWF 60 minute convective storm prediction capability for 36 ITWS airports	Provide TCWF 60 minute Convective Storm prediction for 9 more ITWS airports	TBD, Performance verified test in FY 06. Airports with capability to be verified by the end of FY09.
2010	Mobility	Customer Results	Customer Benefit	Customer Satisfaction	Customer Impacts of flight delays hours caused by convective weather	530,000 Aviation weather delay hours	Reduce aviation delay hours at a total of 47 ITWS airports in operational status by 175500 hours	TBD, Performance measurements will be available by the end of 4Q2011
2010	Mobility	Mission and Business Results	Transportation	Air Transportation	Delay Hours	530,000 Aviation weather delay hours	Reduce aviation delay hours at a total of 47 ITWS airports in operational status by 175500 hours to support DOT and FAA goals to increase arrival rate percentages and improve air traffic flow during adverse weather.	TBD, Performance measurements will be available by the end of 4Q2011
2010	Mobility	Processes and Activities	Productivity and Efficiency	Efficiency	Number of ITWS airports with storm cell predictions capability	20 minute convective storm cell prediction for 45 ITWS airports	Provide 20 minutes of storm cell prediction for more efficient air traffic flow management during convective weather at 2 more ITWS airports	TBD, Performance verified by test in FY06. Airports with capability to be verified by the end of FY10.
2010	Mobility	Technology	Efficiency	Improvement	Number of ITWS Airports with capabilities	Terminal winds for 45 ITWS airports	Terminal Winds for 2 more ITWS airports for improved air traffic flow	TBD, Performance verified by test in FY06. Airports with capability to



Exhibit 300: FAAXX016: Integrated Terminal Weather System (ITWS) Redacted

Performance Information Table								
Fiscal Year	Strategic Goal(s) Supported	Measurement Area	Measurement Category	Measurement Grouping	Measurement Indicator	Baseline	Target	Actual Results
							management during adverse weather.	be verified by the end of FY10.
2010	Mobility	Technology	Efficiency	Improvement	Number of ITWS Airports with capabilities	TCWF 60 minute convective storm prediction capability for 45 ITWS airports	Provide TCWF 60 minute Convective Storm prediction for 2 more ITWS airports	TBD, Performance verified test in FY 06. Airports with capability to be verified by the end of FY10.
2011	Mobility	Customer Results	Customer Benefit	Customer Satisfaction	Customer Impacts of flight delays hours caused by convective weather	530,000 Aviation weather delay hours	Reduce aviation delay hours at a total of 47 ITWS airports in operational status by 180000 hours	TBD, Performance measurements will be available by the end of 4Q2012
2011	Mobility	Mission and Business Results	Transportation	Air Transportation	Delay Hours	530,000 Aviation weather delay hours	Reduce aviation delay hours at a total of 47 ITWS airports in operational status by 180000 hours to support DOT and FAA goals to increase arrival rate percentages and improve air traffic flow during adverse weather.	TBD, Performance measurements will be available by the end of 4Q2012
2011	Mobility	Processes and Activities	Productivity and Efficiency	Efficiency	Number of ITWS airports with storm cell predictions capability	20 minute convective storm cell prediction for 47 ITWS airports	Provide 20 minutes of storm cell prediction for more efficient air traffic flow management during convective weather at 47 ITWS airports	TBD, Performance verified by test in FY06. Airports with capability to be verified by the end of FY11.
2011	Mobility	Technology	Efficiency	Improvement	Number of ITWS Airports with capabilities	Terminal winds for 47 ITWS airports	Terminal Winds for 47 ITWS airports for improved air traffic flow management during adverse weather.	TBD, Performance verified by test in FY06. Airports with capability to be verified by the end of FY11.
2011	Mobility	Technology	Efficiency	Improvement	Number of ITWS Airports with capabilities	TCWF 60 minute convective storm prediction capability for 47 ITWS airports	Provide TCWF 60 minute Convective Storm prediction for 47 ITWS airports	TBD, Performance verified by test in FY06. Airports with capability to be verified by the end of FY11.
2012	Mobility	Customer Results	Customer Benefit	Customer Satisfaction	Customer Impacts of flight delays hours caused by convective weather	530,000 Aviation weather delay hours	Reduce aviation delay hours at a total of 47 ITWS airports in operational status by 184200 hours	TBD, Performance measurements will be available by the end of 4Q2013.
2012	Mobility	Mission and Business Results	Transportation	Air Transportation	Delay Hours	530,000 Aviation weather delay hours	Reduce aviation delay hours at a total of 47 ITWS airports in operational status by 184200 hours to support DOT and FAA goals to increase arrival rate percentages and improve air traffic flow during adverse weather.	TBD, Performance measurements will be available by the end of 4Q2013.
2012	Mobility	Processes and Activities	Productivity and Efficiency	Efficiency	Number of ITWS airports with storm cell predictions	20 minute convective storm cell prediction for 47 ITWS	Provide 20 minutes of storm cell prediction for more	TBD, Performance verified by test in FY06. Airports

Performance Information Table								
Fiscal Year	Strategic Goal(s) Supported	Measurement Area	Measurement Category	Measurement Grouping	Measurement Indicator	Baseline	Target	Actual Results
					capability	airports	efficient air traffic flow management during convective weather at 47 ITWS airports	with capability to be verified by the end of FY13.
2012	Mobility	Technology	Efficiency	Improvement	Number of ITWS Airports with capabilities	Terminal winds for 47 ITWS airports	Terminal Winds for 47 ITWS airports for improved air traffic flow management during adverse weather.	TBD, Performance verified by test in FY06. Airports with capability to be verified by the end of FY12.
2012	Mobility	Technology	Efficiency	Improvement	Number of ITWS Airports with capabilities	TCWF 60 minute convective storm prediction capability for 47 ITWS airports	Provide TCWF 60 minute Convective Storm prediction for 47 ITWS airports	TBD, Performance verified by test in FY06. Airports with capability to be verified by the end of FY12.
2013	Mobility	Customer Results	Customer Benefit	Customer Satisfaction	Customer Impacts of flight delays hours caused by convective weather	530,000 Aviation weather delay hours	Reduce aviation delay hours at a total of 47 ITWS airports in operational status by 187600 hours	TBD, Performance measurements will be available by the end of 4Q2014.
2013	Mobility	Mission and Business Results	Transportation	Air Transportation	Delay Hours	530,000 Aviation weather delay hours	Reduce aviation delay hours at a total of 47 ITWS airports in operational status by 187600 hours to support DOT and FAA goals to increase arrival rate percentages and improve air traffic flow during adverse weather.	TBD, Performance measurements will be available by the end of 4Q2014.
2013	Mobility	Processes and Activities	Productivity and Efficiency	Efficiency	Number of ITWS airports with storm cell predictions capability	20 minute convective storm cell prediction for 47 ITWS airports	Provide 20 minutes of storm cell prediction for more efficient air traffic flow management during convective weather at 47 ITWS airports	TBD, Performance verified by test in FY06. Airports with capability to be verified by the end of FY13.
2013	Mobility	Technology	Efficiency	Improvement	Number of ITWS Airports with capabilities	Terminal winds for 47 ITWS airports	Terminal Winds for 47 ITWS airports for improved air traffic flow management during adverse weather.	TBD, Performance verified by test in FY06. Airports with capability to be verified by the end of FY13.
2013	Mobility	Technology	Efficiency	Improvement	Number of ITWS Airports with capabilities	TCWF 60 minute convective storm prediction capability for 47 ITWS airports	Provide TCWF 60 minute Convective Storm prediction for 47 ITWS airports	TBD, Performance verified by test in FY06. Airports with capability to be verified by the end of FY13.

**Section E: Security and Privacy (IT Capital Assets only)**

In order to successfully address this area of the business case, each question below must be answered at the system/application level, not at a program or agency level. Systems supporting this investment on the planning and operational systems security tables should match the systems on the privacy table below. Systems on the Operational Security Table must be included on your agency FISMA system inventory and should be easily referenced in the inventory (i.e., should use the same name or identifier).

For existing Mixed-Life Cycle investments where enhancement, development, and/or modernization is planned, include the investment in both the "Systems in Planning" table (Table 3) and the "Operational Systems" table (Table 4). Systems which are

already operational, but have enhancement, development, and/or modernization activity, should be included in both Table 3 and Table 4. Table 3 should reflect the planned date for the system changes to be complete and operational, and the planned date for the associated C&A update. Table 4 should reflect the current status of the requirements listed. In this context, information contained within Table 3 should characterize what updates to testing and documentation will occur before implementing the enhancements; and Table 4 should characterize the current state of the materials associated with the existing system.

All systems listed in the two security tables should be identified in the privacy table. The list of systems in the "Name of System" column of the privacy table (Table 8) should match the systems listed in columns titled "Name of System" in the security tables (Tables 3 and 4). For the Privacy table, it is possible that there may not be a one-to-one ratio between the list of systems and the related privacy documents. For example, one PIA could cover multiple systems. If this is the case, a working link to the PIA may be listed in column (d) of the privacy table more than once (for each system covered by the PIA).

The questions asking whether there is a PIA which covers the system and whether a SORN is required for the system are discrete from the narrative fields. The narrative column provides an opportunity for free text explanation why a working link is not provided. For example, a SORN may be required for the system, but the system is not yet operational. In this circumstance, answer "yes" for column (e) and in the narrative in column (f), explain that because the system is not operational the SORN is not yet required to be published.

Please respond to the questions below and verify the system owner took the following actions:

1. Have the IT security costs for the system(s) been identified and integrated into the overall costs of the investment? Yes  
 a. If "yes," provide the "Percentage IT Security" for the budget year: 4.75
2. Is identifying and assessing security and privacy risks a part of the overall risk management effort for each system supporting or part of this investment? Yes

3. Systems in Planning and Undergoing Enhancement(s), Development, and/or Modernization - Security Table(s):			
Name of System	Agency/ or Contractor Operated System?	Planned Operational Date	Date of Planned C&A update (for existing mixed life cycle systems) or Planned Completion Date (for new systems)
Redacted			

4. Operational Systems - Security Table:							
Name of System	Agency/ or Contractor Operated System?	NIST FIPS 199 Risk Impact level (High, Moderate, Low)	Has C&A been Completed, using NIST 800-37? (Y/N)	Date Completed: C&A	What standards were used for the Security Controls tests? (FIPS 200/NIST 800-53, Other, N/A)	Date Complete(d): Security Control Testing	Date the contingency plan tested
Redacted							

5. Have any weaknesses, not yet remediated, related to any of the systems part of or supporting this investment been identified by the agency or IG? Yes  
 a. If "yes," have those weaknesses been incorporated into the agency's plan of action and milestone process? Yes
6. Indicate whether an increase in IT security funding is requested to remediate IT security weaknesses? Redacted  
 a. If "yes," specify the amount, provide a general description of the weakness, and explain how the funding request will remediate the weakness.

7. How are contractor security procedures monitored, verified, and validated by the agency for the contractor systems above?  
 Redacted

8. Planning & Operational Systems - Privacy Table:					
(a) Name of System	(b) Is this a new system? (Y/N)	(c) Is there at least one Privacy Impact Assessment (PIA) which covers this system? (Y/N)	(d) Internet Link or Explanation	(e) Is a System of Records Notice (SORN) required for this system? (Y/N)	(f) Internet Link or Explanation
ITWS (Operational Systems BY09)	No	No	The system does not contain, process, or transmit personal identifying information.	No	The system is not a Privacy Act system of records.
ITWS (Planning System	No	No	The system does not	No	The system is not a

8. Planning & Operational Systems - Privacy Table:					
(a) Name of System	(b) Is this a new system? (Y/N)	(c) Is there at least one Privacy Impact Assessment (PIA) which covers this system? (Y/N)	(d) Internet Link or Explanation	(e) Is a System of Records Notice (SORN) required for this system? (Y/N)	(f) Internet Link or Explanation
BY 09Sites approved, but yet to be deployed)			contain, process, or transmit personal identifying information.		Privacy Act system of records.
<b>Details for Text Options:</b> Column (d): If yes to (c), provide the link(s) to the publicly posted PIA(s) with which this system is associated. If no to (c), provide an explanation why the PIA has not been publicly posted or why the PIA has not been conducted.  Column (f): If yes to (e), provide the link(s) to where the current and up to date SORN(s) is published in the federal register. If no to (e), provide an explanation why the SORN has not been published or why there isn't a current and up to date SORN.  Note: Working links must be provided to specific documents not general privacy websites. Non-working links will be considered as a blank field.					

**Section F: Enterprise Architecture (EA) (IT Capital Assets only)**

In order to successfully address this area of the capital asset plan and business case, the investment must be included in the agency's EA and Capital Planning and Investment Control (CPIC) process and mapped to and supporting the FEA. The business case must demonstrate the relationship between the investment and the business, performance, data, services, application, and technology layers of the agency's EA.

1. Is this investment included in your agency's target enterprise architecture? Yes
  - a. If "no," please explain why?
  
2. Is this investment included in the agency's EA Transition Strategy? Yes
  - a. If "yes," provide the investment name as identified in the Transition Strategy provided in the agency's most recent annual EA Assessment. Integrated Terminal Weather System (ITWS) - FAA
  - b. If "no," please explain why?
  
3. Is this investment identified in a completed (contains a target architecture) and approved segment architecture? Yes
  - a. If "yes," provide the name of the segment architecture as provided in the agency's most recent annual EA Assessment. Air Traffic

4. Service Component Reference Model (SRM) Table:								
Identify the service components funded by this major IT investment (e.g., knowledge management, content management, customer relationship management, etc.). Provide this information in the format of the following table. For detailed guidance regarding components, please refer to <a href="http://www.egov.gov">http://www.egov.gov</a> .								
Agency Component Name	Agency Component Description	FEA SRM Service Domain	FEA SRM Service Type	FEA SRM Component (a)	Service Component Reused Name (b)	Service Component Reused UPI (b)	Internal or External Reuse? (c)	BY Funding Percentage (d)
ATC Advisory Weather Advisory Capability	ATC Advisories - Weather Information is available either automatically or manually through communication with ATC and other facilities. For example, pilots receive weather advisories from automated surface observing systems and other systems, ATC facilities, and aircraft operations centers (AOCs). Advisories provide both routine and hazardous weather information	Digital Asset Services	Knowledge Management	Knowledge Capture			No Reuse	50

Exhibit 300: FAAXX016: Integrated Terminal Weather System (ITWS) Redacted

4. Service Component Reference Model (SRM) Table:								
Identify the service components funded by this major IT investment (e.g., knowledge management, content management, customer relationship management, etc.). Provide this information in the format of the following table. For detailed guidance regarding components, please refer to <a href="http://www.egov.gov">http://www.egov.gov</a> .								
Agency Component Name	Agency Component Description	FEA SRM Service Domain	FEA SRM Service Type	FEA SRM Component (a)	Service Component Reused Name (b)	Service Component Reused UPI (b)	Internal or External Reuse? (c)	BY Funding Percentage (d)
	and/or flight conditions at airports or along a flight path.							
ATC - Advisory Weather Advisory Capability	ATC Advisories - Weather information is available either automatically or manually through communication with ATC and other facilities. For example, pilots receive weather advisories from automated surface observing systems and other systems, ATC facilities, and aircraft operations centers (AOCs). Advisories provide both routine and hazardous weather information and/or flight conditions at airports or along a flight path.	Digital Asset Services	Knowledge Management	Knowledge Distribution and Delivery			No Reuse	50

a. Use existing SRM Components or identify as "NEW". A "NEW" component is one not already identified as a service component in the FEA SRM.

b. A reused component is one being funded by another investment, but being used by this investment. Rather than answer yes or no, identify the reused service component funded by the other investment and identify the other investment using the Unique Project Identifier (UPI) code from the OMB Ex 300 or Ex 53 submission.

c. 'Internal' reuse is within an agency. For example, one agency within a department is reusing a service component provided by another agency within the same department. 'External' reuse is one agency within a department reusing a service component provided by another agency in another department. A good example of this is an E-Gov initiative service being reused by multiple organizations across the federal government.

d. Please provide the percentage of the BY requested funding amount used for each service component listed in the table. If external, provide the percentage of the BY requested funding amount transferred to another agency to pay for the service. The percentages in the column can, but are not required to, add up to 100%.

5. Technical Reference Model (TRM) Table:				
To demonstrate how this major IT investment aligns with the FEA Technical Reference Model (TRM), please list the Service Areas, Categories, Standards, and Service Specifications supporting this IT investment.				
FEA SRM Component (a)	FEA TRM Service Area	FEA TRM Service Category	FEA TRM Service Standard	Service Specification (b) (i.e., vendor and product name)
Knowledge Distribution and Delivery	Component Framework	Business Logic	Platform Independent	Redacted
Knowledge Capture	Service Access and Delivery	Access Channels	Other Electronic Channels	Redacted
Knowledge Capture	Service Access and Delivery	Service Requirements	Legislative / Compliance	Redacted
Knowledge Capture	Service Access and Delivery	Service Transport	Service Transport	Redacted
Knowledge Distribution and Delivery	Service Platform and Infrastructure	Hardware / Infrastructure	Embedded Technology Devices	Redacted
Knowledge Distribution and Delivery	Service Platform and Infrastructure	Hardware / Infrastructure	Local Area Network (LAN)	Redacted
Knowledge Distribution and Delivery	Service Platform and Infrastructure	Hardware / Infrastructure	Network Devices / Standards	Redacted
Knowledge Distribution and Delivery	Service Platform and Infrastructure	Software Engineering	Integrated Development Environment	Redacted
Knowledge Distribution and Delivery	Service Platform and Infrastructure	Software Engineering	Software Configuration Management	Redacted

<b>5. Technical Reference Model (TRM) Table:</b>				
To demonstrate how this major IT investment aligns with the FEA Technical Reference Model (TRM), please list the Service Areas, Categories, Standards, and Service Specifications supporting this IT investment.				
<b>FEA SRM Component (a)</b>	<b>FEA TRM Service Area</b>	<b>FEA TRM Service Category</b>	<b>FEA TRM Service Standard</b>	<b>Service Specification (b) (i.e., vendor and product name)</b>
Knowledge Distribution and Delivery	Service Platform and Infrastructure	Software Engineering	Test Management	Redacted

a. Service Components identified in the previous question should be entered in this column. Please enter multiple rows for FEA SRM Components supported by multiple TRM Service Specifications

b. In the Service Specification field, agencies should provide information on the specified technical standard or vendor product mapped to the FEA TRM Service Standard, including model or version numbers, as appropriate.

6. Will the application leverage existing components and/or applications across the Government (i.e., FirstGov, Pay.Gov, etc)? No

a. If "yes," please describe.

**Exhibit 300: Part II: Planning, Acquisition and Performance Information**

**Section A: Alternatives Analysis (All Capital Assets)**

Part II should be completed only for investments identified as "Planning" or "Full Acquisition," or "Mixed Life-Cycle" investments in response to Question 6 in Part I, Section A above.

In selecting the best capital asset, you should identify and consider at least three viable alternatives, in addition to the current baseline, i.e., the status quo. Use OMB Circular A-94 for all investments and the Clinger Cohen Act of 1996 for IT investments to determine the criteria you should use in your Benefit/Cost Analysis.

- 1. Did you conduct an alternatives analysis for this project? Yes
  - a. If "yes," provide the date the analysis was completed? 7/6/2007
  - b. If "no," what is the anticipated date this analysis will be completed?
  - c. If no analysis is planned, please briefly explain why:

2. Alternative Analysis Results: \* Costs in millions  
 Use the results of your alternatives analysis to complete the following table:

Alternative Analyzed	Description of Alternative	Risk Adjusted Lifecycle Costs estimate	Risk Adjusted Lifecycle Benefits estimate
Redacted			

3. Which alternative was selected by the Agency's Executive/Investment Committee and why was it chosen?

Redacted

4. What specific qualitative benefits will be realized?

Redacted

5. Will the selected alternative replace a legacy system in-part No or in-whole?

a. If "yes," are the migration costs associated with the migration to the selected alternative included in this investment, the legacy investment, or in a separate migration investment.

b. If "yes," please provide the following information:

List of Legacy Investment or Systems		
Name of the Legacy Investment of Systems	UPI if available	Date of the System Retirement

**Section B: Risk Management (All Capital Assets)**

You should have performed a risk assessment during the early planning and initial concept phase of this investment's life-cycle, developed a risk-adjusted life-cycle cost estimate and a plan to eliminate, mitigate or manage risk, and be actively managing risk throughout the investment's life-cycle.

- 1. Does the investment have a Risk Management Plan? Yes
  - a. If "yes," what is the date of the plan? 4/6/2007
  - b. Has the Risk Management Plan been significantly changed since last year's submission to OMB? Yes
  - c. If "yes," describe any significant changes:

Risk management has been an integral part of ITWS program management since the program's inception. The original ITWS Risk Management Plan (RMP) was published in March 1995 and is reviewed annually and updated as needed to remain current. The April 2007 update reflects adoption of FAA-wide risk management processes and a standardized, automated risk database management system tool implemented in DOORS, and the addition of an ATO-T Weather Sector-level risk management board (SRMB). These changes provide standardized procedures for identifying, categorizing, evaluating, mitigating, tracking and reporting program risks. They also enable greater focus on risk management at all higher levels of ATO management via standardized tracking and reporting. The ITWS Program Manager continually tracks all risks per the RMP at bi-weekly program team meetings and monthly Program Management Reviews with the prime contractor. Continuous risk identification, mitigation, tracking and reporting by the prime contractor continues to be a contract requirement. The SRMB meets monthly to address all

aspects of the RMP for risks designated as Sector level risks for reporting above the PM level. The ITWS Risk Management Database was also updated in 2006 per the RMP; the database tracks program risks' status and progress, at least on a monthly basis. The ITWS Team has closed a number of Basic-level technical, schedule and cost risks. The focus of ITWS risk management activities is on system deployment activities and the In-Service Management program. The PART addressed in Question I.A.14 did not identify any specific weaknesses or remedial actions pertinent to this investment.

2. If there currently is no plan, will a plan be developed?

- a. If "yes," what is the planned completion date?
- b. If "no," what is the strategy for managing the risks?

3. Briefly describe how investment risks are reflected in the life cycle cost estimate and investment schedule:

All ITWS life cycle cost/schedule estimates are risk-adjusted per the impact of identified risks on performance, schedule, and financial risks. For cost estimates, the risk associated with each WBS element is assessed and quantified with an upper and lower risk percentage by subject matter experts (SMEs). The risk range is cross-checked with the contract strategy (fixed price or cost plus) for each WBS element. Disparities are investigated to resolution. An automated tool is used to generate high/low cost risk estimates for the most likely cost by WBS element and for aggregated cost estimates. For schedule risk, associated technical and cost risks by WBS element are evaluated per scheduled tasks. A Monte Carlo simulation tool is used to analyze and project schedule risk and associated cost impacts. These risks are integrated with the life cycle cost/schedule estimates. ITWS Management has a comprehensive RMP that provides detail on how risks are identified, allocated to cost/schedule/technical requirements, and brought to closure through mitigation. All potential ITWS schedule risks are evaluated by working groups comprised of ITWS functional area representatives in accordance with FAA SEM Chapter 4.10 (Risk Management). Mitigation plans and strategies are developed to eliminate risks or reduce them to a low (basic) level. The ITWS program office maintains an automated Risk Management Database, describing risk mitigation strategy and current status of each risk. For each significant ITWS risk, an SME working group is formed that works with ITWS management to develop and execute a risk mitigation plan. Risk status is reported to ITWS management at weekly management meetings. The risk-adjusted TY F&E cost estimate prepared for the 2007 JRC Final Investment Decision is \$43.4M for FY07-FY11, and \$40.6M without risk adjustment. The risk-adjusted TY O&M estimate is \$159.1M for FY07-FY28, and \$152.7M without risk. The program manages using risk adjusted costs and schedules with MR distributed to WBS elements. The WBS is rolled up into annual spend plans segregated by major task and performing organization, which is a primary tool used for performance tracking and reporting. MR is not tracked as a separate element, but as the accumulated over and under plan costs. The WBS is used for more detailed MR analysis in conjunction with EVM data as necessary. Raytheon manages MR on the prime contract in accordance with government approved corporate procedures

### **Section C: Cost and Schedule Performance (All Capital Assets)**

EVM is required only on DME portions of investments. For mixed lifecycle investments, O&M milestones should still be included in the table (Comparison of Initial Baseline and Current Approved Baseline). This table should accurately reflect the milestones in the initial baseline, as well as milestones in the current baseline.

1. Does the earned value management system meet the criteria in ANSI/EIA Standard-748? No
2. Is the CV% or SV% greater than +/- 10%? (CV%= CV/EV x 100; SV%= SV/PV x 100) No
  - a. If "yes," was it the CV or SV or both?
  - b. If "yes," explain the causes of the variance:
  - c. If "yes," describe the corrective actions:
3. Has the investment re-baselined during the past fiscal year?
  - a. If "yes," when was it approved by the agency head?



4. Comparison of Initial Baseline and Current Approved Baseline										
Complete the following table to compare actual performance against the current performance baseline and to the initial performance baseline. In the Current Baseline section, for all milestones listed, you should provide both the baseline and actual completion dates (e.g., "03/23/2003"/ "04/28/2004") and the baseline and actual total costs (in \$ Millions). In the event that a milestone is not found in both the initial and current baseline, leave the associated cells blank. Note that the 'Description of Milestone' and 'Percent Complete' fields are required. Indicate '0' for any milestone no longer active.										
Milestone Number	Description of Milestone	Initial Baseline		Current Baseline				Current Baseline Variance		Percent Complete
		Planned Completion Date (mm/dd/yyyy)	Total Cost (\$M) Estimated	Completion Date (mm/dd/yyyy)		Total Cost (\$M)		Schedule (# days)	Cost (\$M)	
				Planned	Actual	Planned	Actual			
Redacted										