## 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: 9/10/2007

Agency: Department of Transportation
 Bureau: Federal Aviation Administration

4. Name of this Capital Asset: FAAXX216: Weather and Radar Processor (WARP)

5. Unique Project (Investment) Identifier: (For IT investment only, see section 53. For all other, use agency ID system.)

021-12-01-21-01-1020-00

6. What kind of investment will this be in FY2009? (Please NOTE: Investments moving to 0&M in FY2009, with Planning/Acquisition activities prior to FY2009 should not select 0&M. These investments should indicate their current status.)

Operations and Maintenance

7. What was the first budget year this investment was submitted to OMB?

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:

FY2004

The WARP program began in 1994. Its mission is to provide consistent, integrated real-time aviation weather information for the NAS. Systems before WARP used older radars whose weather displays were inaccurate & inconsistent. Access to other weather data was slow & unreliable. WARP closes these performance gaps.

WARP supports the DOT strategic & FAA flight plan goals & objectives of greater capacity & safety. WARP maintained in each of the years '04, '05, & '06 an average baseline-reduction in the accident rate for general aviation aircraft w/o onboard weather radar encountering thunderstorms while receiving En Route Services to 2 per year. WARP reduces air traffic delays caused by thunderstorms & supplies forecast wind data that are crucial to automated traffic-flow tools.

For BY09, WARP will continue to provide these capabilities. Funding was added for limited tech refresh to achieve & maintain performance goals. Planned actions include, but are not limited to hardware replacement/upgrade.

WARP provides weather information to FAA ARTCC Air Traffic Controllers (ATCs), FAA ATCSCC, FAA TMU specialists, and NWS Meteorologists. WARP gathers NEXRAD data & processes it into weather displays for the ARTCC ATCs' screens. It receives aviation weather data from the NWS & various other sources. WARP closes performance gaps by providing a full spectrum of aviation weather information in real-time to other NAS systems. It meets the rigorous COMSEC & data integrity directives that guide FAA IT acquisitions. The architecture of WARP supplies many customers with necessary data w/o duplication of components or communication services. The FAA provides service & support to DoD, Coast Guard, TSA, & other agencies. The FAA supplies WARP weather information directly to these agencies on authorization by an executive order, in a national emergency, or if weather information is not available by any other means.

WARP is operational at all 21 ARTCCs & the ATCSCC. The FAA WJHTC has two WARPs for testing & monitoring. The WARP investment includes one WARP for development & testing at the contractor facility in Melbourne, FL.

The WARP investment is not collaborative. It is in the Evaluate phase of the CPIC process. WARP is asking for O&M funds due to delays with WARP Replacement. Extension of O&M funding does not change WARP functionality; WARP remains steady-state. The WARP team anticipates approval of additional funding at the 9/2007 JRC final investment decision.

Yes

9. Did the Agency's Executive/Investment Committee approve this request?

a. If "yes," what was the date of this approval? 10/15/1999

10. Did the Project Manager review this Exhibit? Yes

11. Contact information of Project Manager?

Name Alfred Moosakhanian

Phone Number Redacted

Email Alfred.Moosakhanian@faa.gov

a. What is the current FAC-P/PM certification level of the project/program manager?

Yes

**TBD** 

12. Has the agency developed and/or promoted cost effective, energy-efficient and environmentally sustainable techniques or practices for this project?

. . . .

a. Will this investment include electronic assets (including computers)?

Yes

b. Is this investment for new construction or major retrofit of a Federal building or facility? (answer applicable

No

to non-IT assets only)

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

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 Yes the Program Assessment Rating Tool (PART)? (For more information about the PART, visit www.whitehouse.gov/omb/part.)
- a. If "yes," does this investment address a weakness Yes found during a PART review?
  - b. If "yes," what is the name of the PARTed program? FAA Air Traffic Services
  - c. If "yes," what rating did the PART receive?

    Adequate
- 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 Level 2 Guidance)
- 17. What project management qualifications does the (1) I
  - (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)

Project Manager have? (per CIO Council PM Guidance)

19. Is this a financial management system?

No

- a. If "yes," does this investment address a FFMIA compliance area?
  - 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
 0.000000

 Software
 0.000000

 Services
 100.000000

 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?

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

NameMauney, CarlaPhone NumberRedactedTitlePrivacy 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

Yes

N/A

Question 24 must be answered by all Investments:

24. Does this investment directly support one of the GAO

# 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:	1.4	0	0	0	Redacted	Redacted	Redacted	Redacted	Redacted				
Acquisition:	153.9	0	0	0	Redacted	Redacted	Redacted	Redacted	Redacted				
Subtotal Planning & Acquisition:	155.3	0	0	0	Redacted	Redacted	Redacted	Redacted	Redacted				
Operations & Maintenance:	83.04	25.3	18.7	19.993	Redacted	Redacted	Redacted	Redacted	Redacted				
TOTAL:	238.34	25.3	18.7	19.993	Redacted	Redacted	Redacted	Redacted	Redacted				
Government FTE Costs should not be included in the amounts provided above.													
Government FTE Costs	7.56	1.73	1.782	1.836	Redacted	Redacted	Redacted	Redacted	Redacted				
Number of FTE represented by Costs:	42	12	12	12	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 No FTE's?
  - 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.

Contracts/T	ask Orders T	able:													* Cc	sts in millions
Contract or Task Order Number			If so what is the date of the award? If not, what is the planned award date?	Contract/	End date of Contract/	Total Value of Contract/ Task Order (\$M)	Interagenc y	e hased?	., ama.aca.	What, if any, alternative financing option is being used? (ESPC, UESC, EUL, N/A)	the	Does the contract include the required security & privacy clauses? (Y/N)	Name of CO	CO Contact	Contracting Officer Certificatio	If N/A, has the agency determined the CO assigned has the competenci es and skills necessary to support this acquisition ? (Y/N)
Redacted																

## 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. The table can be extended to include performance measures for years beyond FY 2009.

Performance In	Performance Information Table									
Fiscal Year	Strategic Goal(s) Supported	Measurement Area	Measurement Category	Measurement Grouping	Measurement Indicator	Baseline	Target	Actual Results		
2005	Reduced Congestion	Customer Results	Customer Benefit	Customer Satisfaction	Customer Satisfaction - Rate of positive responses from users as documented in questionnaire.	Average percent of customers satisfied with WARP is 80%.	Increase the customer satisfaction incrementally by 5%.	Controller responses indicate customer satisfaction rate of 82%.		
2005	Reduced Congestion	Mission and Business Results	Transportation	Air Transportation	En route weather-related delay hours.	Pre-Warp, 3- year average annual En route weather-related delay of 234,000 hours.		Delay reduction of 79,500 hours based on controller interviews at 6 Air Route Traffic Controller Centers (ARTCCs). Documented in MCR Federal, Inc. report.		
2005	Mobility	Mission and Business Results	Transportation	Air Transportation	En route weather-related delay hours.	Pre-Warp, 3- year average annual En route weather-related delay of 234,000 hours.	Maintain proportional reduction in weather-related delays, as traffic increases by 5% per year.	Delay reduction of 79,500 hours based on controller interviews at 6 Air Route Traffic Controller Centers (ARTCCs). Documented in MCR Federal, Inc. report.		
2005	Safety	Mission and Business Results	Transportation	Air Transportation	Safety - Accident Rate	Average of 10-yr period, for General Aviation and Air Taxi aircraft, the number of report accidents without onboard radar in En route status where convective weather is a significant factor equaled 35 (3.5 per year).	rate by 5%.	Review of NTSB reports finds 2 accidents in 2004 and 1 accident in the first six months of 2005 involving General Aviation aircraft without onboard radar in En Route status. This is a 43% reduction from the baseline.		
2005	Reduced Congestion	Processes and Activities	Productivity and Efficiency	Efficiency	TMU decision- making time for strategic situations.	Pre-WARP TMU decision-making time of 15 minutes.	Reduce average TMU decision- making time by 5%.	Preliminary study with limited data indicates 10 minute decision time savings related to weather data availability on WARP.		
2005	Reduced Congestion	Processes and Activities	Productivity and Efficiency	Efficiency	Reduce false weather echoes (without reducing real weather echoes) in mosaic	Before WARP mosaic capability, original false weather echoes reduced	Enhanced ATC and TMU decisions and capabilities by reducing false weather echoes	(Enhanced Mosaic deployed 4QFY05.Results will be available by the end of 1QFY06.)		

Performance Ir	nformation Table	e	5					
Fiscal Year	Strategic Goal(s) Supported	Measurement Area	Measurement Category	Measurement Grouping	Measurement Indicator	Baseline	Target	Actual Results
					displays (composite of all radar data) to improve accuracy for air traffic controllers and Traffic Management Unit (TMU) personnel.	accuracy of weather displays by at least 15%.	(without reducing real weather echoes) by 50% with enhancements to WARP's mosaic functionality.	OBSOLETE: Deployment delayed to provide training update. See 2006 goal below.
2005	Reduced Congestion	Technology	Reliability and Availability	Availability	System availability (Uptime).	0.9996 system availability.	Sustain the 0.9996 uptime.	Final 2005 performance measurements show availability of 0.9997.
2005	Safety	Technology	Reliability and Availability	Availability	System availability (Uptime).	0.9996 system availability.	Sustain the 0.9996 uptime.	Final 2005 performance measurements show availability of 0.9997.
2006	Reduced Congestion	Customer Results	Customer Benefit	Customer Satisfaction	Customer Satisfaction - Rate of positive responses from users documented in questionnaire.	Average percent of customers satisfied with WARP is 82%.	Increase the customer satisfaction by 5%.	Survey results show 87% overall satisfaction.
2006	Safety	Customer Results	Timeliness and Responsiveness	Response Time	TMU decision- making time for strategic situations.	Pre-WARP TMU decision-making time of 15 minutes.	Reduce average TMU decision- making time by 5%.	Survey indicates reduction in weather data gathering time of 10 minutes (67% reduction).
2006	Reduced Congestion	Mission and Business Results	Transportation	Air Transportation	En-Route weather-related delay hours.	Controller- estimated delay reduction of 40,165 hours.	Maintain proportional reduction in weather-related delays, as traffic increases by 5% per year.	Controller case- study analysis confirms delay reduction of 42,000 hours.
2006	Safety	Mission and Business Results	Transportation	Air Transportation	Safety - Accident Rate	Accident rate of En route General Aviation aircraft without on- board weather radar reduced from pre-WARP average of 3.5 per year to 2 per year.	reduction in accident rate for en route general aviation aircraft without on- board weather	FAA recorded 2 fatal weather-related accidents involving general aviation aircraft without on-board weather radar encountering thunderstorms while receiving En Route Services in each of the years 2004, 2005, and 2006.
2006	Reduced Congestion	Processes and Activities	Productivity and Efficiency	Efficiency	TMU decision- making time for strategic situations.	Pre-WARP TMU decision-making time of 15 minutes.	Reduce average TMU decision- making time by 5%.	Survey indicates reduction in weather data gathering time of 10 minutes (67% reduction).
2006	Reduced Congestion	Technology	Reliability and Availability	Availability	System availability (Uptime).	0.9996 system availability.	Sustain the 0.9996 uptime. This number will be an average at all 21 ARTCCs.	Final 2006 performance measurements show availability of 0.9988. This slippage is a result of hardware becoming obsolete or reaching its end of life. The WARP limited tech refresh will mitigate this availability slippage.
2006	Safety	Technology	Reliability and Availability	Availability	System availability (Uptime).	0.9996 system availability.	Sustain the 0.9996 uptime. This number will	Final 2006 performance measurements

Performance In	formation Table							
Fiscal Year	Strategic Goal(s) Supported	Measurement Area	Measurement Category	Measurement Grouping	Measurement Indicator	Baseline	Target	Actual Results
							be an average at all 21 ARTCCs.	show availability of 0.9988. This slippage is a result of hardware becoming obsolete or reaching its end of life. The WARP limited tech refresh will mitigate this availability slippage.
2006	Reduced Congestion	Technology	Reliability and Availability	Reliability	False weather echoes in mosaic displays (composite of all radar data)	capability, original false weather echoes reduced accuracy of weather displays	Enhance ATC and TMU decisions and capabilities by reducing false weather echoes (without reducing real weather echoes) by 5% with enhancements to WARP's mosaic functionality.	Empirical study shows WARP Optimal Mosaic reduces false weather echoes by 80%.
2007	Reduced Congestion	Customer Results	Customer Benefit	Customer Satisfaction		Average percent of customers satisfied with WARP is 87%.	Maintain satisfaction rate greater than 85%	Survey results show slight decline, but lack of geographical diversity and low response rate indicate no statistical significance. Hence, no change.
2007	Safety	Customer Results	Timeliness and Responsiveness	Response Time	TMU decision- making time for strategic situations.	Pre-WARP TMU decision-making time of 15 minutes.	Maintain reduction in weather data gathering time of 10 minutes (67% reduction) to provide accurate and timely weather data to the airtraffic controllers.	Continued WARP availability allows data gathering time to maintain the goal. A more appropriate metric will be used in future years.
2007	Safety	Mission and Business Results	Transportation	Air Transportation		rate of General	general aviation aircraft without on-board weather radar encountering thunderstorms while receiving En Route services of 2 per	No thunderstorm- attributable accidents have occurred in the first 7 months of 2007. Final results will be made available by the end of the 4QFY07.
2007	Reduced Congestion	Mission and Business Results	Transportation	Air Transportation	En route weather-related delay hours.	Controller- estimated delay reduction of 42,000 hours.	Maintain proportional reduction in weather-related delays, as traffic increases by 5% per year.	Revised estimating methodology using more conservative elements of controller estimates and case study analysis indicates delay reduction of 31,400 hours.
2007	Reduced Congestion	Processes and Activities	Productivity and Efficiency	Efficiency	TMU decision- making time for strategic situations.	Pre-WARP TMU decision-making time of 15 minutes.	Maintain reduction in weather data gathering time of 10 minutes (67% reduction)	Continued WARP availability allows data gathering time to maintain the goal. A more

Performance In	nformation Table	DIT 300: FAAXX2	2. 2. 3. 5. 6. 10. 1	aaai 1100	(**************************************			
Fiscal Year	Strategic Goal(s) Supported	Measurement Area	Measurement Category	Measurement Grouping	Measurement Indicator	Baseline	Target	Actual Results
							to provide accurate and timely weather data to the air- traffic controllers.	appropriate metric will be used in future years.
2007	Reduced Congestion	Technology	Reliability and Availability	Availability	System availability (Uptime).	0.9996 system availability.	Meet the required 0.9996 system availability. This number will be an average at all 21 ARTCCs.	Reports to date indicate availability of 0.9993 over 8 months. Final results will be made available by the end of the 4QFYO7.
2007	Safety	Technology	Reliability and Availability	Availability	System availability (Uptime).	0.9996 system availability.	number will be	Reports to date indicate availability of 0.9993 over 8 months. Final results will be made available by the end of the 4QFYO7.
2007	Reduced Congestion	Technology	Reliability and Availability	Reliability	False weather echoes in mosaic displays (composite of all radar data)	Before WARP mosaic capability, original false weather echoes reduced accuracy of weather displays by at least 15%.	reduction of false weather echoes (without	Empirical study shows WARP Optimal Mosaic reduces false weather echoes by 80%.
2008	Reduced Congestion	Customer Results	Customer Benefit	Customer Satisfaction	Customer Satisfaction - Rate of positive responses from users documented in questionnaire	Average percent of customers satisfied with WARP is 87%.	Maintain satisfaction rate greater than 85%.	Results will be made available by the end of the 4QFY08.
2008	Safety	Customer Results	Timeliness and Responsiveness	Response Time	WARP Briefing Product generation time	Time to produce default Automatic Product Generation (APG) briefing products	Maintain Product generation time below the 99.5 percentile as identified in the WARP specification.	Results will be made available by the end of the 4QFY08.
2008	Reduced Congestion	Mission and Business Results	Transportation	Air Transportation	En route weather-related delay hours	Controller- estimated delay reduction of 42,000 hours.	Maintain proportional reduction in weather-related delays, as traffic increases by 5% per year.	Results will be made available by the end of the 4QFY08.
2008	Safety	Mission and Business Results	Transportation	Air Transportation	Safety - Accident Rate	Fatal accident rate of General Aviation aircraft without on- board weather radar encountering thunderstorms while receiving En Route services reduced from pre-WARP average of 3.5 per year to 2 per year.	general aviation aircraft without on-board weather radar encountering thunderstorms while receiving En Route services to 2 per year.	Results will be made available by the end of the 4QFY08.
2008	Reduced Congestion	Processes and Activities	Productivity and Efficiency	Efficiency	TBD	TBD	TBD	Results will be made available by the end of the 4QFY08.
2008	Reduced Congestion	Technology	Reliability and Availability	Availability	System availability (Uptime).	0.9996 system availability.	Meet the required 0.9996 system availability. This number will be an average at all	Results will be made available by the end of the 4QFY08.

Performance In	nformation Table	DIT 300: FAAXX2			(,)			
Fiscal Year	Strategic Goal(s) Supported	Measurement Area	Measurement Category	Measurement Grouping	Measurement Indicator	Baseline	Target	Actual Results
							21 ARTCCs.	
2008	Safety	Technology	Reliability and Availability	Availability	System availability (Uptime).	0.9996 system availability.	Meet the required 0.9996 system availability. This number will be an average at all 21 ARTCCs.	Results will be made available by the end of the 4QFY08.
2008	Reduced Congestion	Technology	Reliability and Availability	Reliability	False weather echoes in mosaic displays (composite of all radar data)	Before WARP mosaic capability, original false weather echoes reduced accuracy of weather displays by at least 15%.	Enhance ATC and TMU decisions and capabilities by maintaining 80% reduction of false weather echoes (without reducing real weather echoes) with implementation of Optimal Mosaic.	Results will be made available by the end of the 4QFY08.
2009	Reduced Congestion	Customer Results	Customer Benefit	Customer Satisfaction	Customer Satisfaction - Rate of positive responses from users documented in questionnaire.	Average percent of customers satisfied with WARP is 87%.	Maintain satisfaction rate greater than 85%	Results will be made available by the end of the 4QFY09.
2009	Safety	Customer Results	Timeliness and Responsiveness	Response Time	WARP Briefing Product generation time	Time to produce default Automatic Product Generation (APG) briefing products.	Maintain Product generation time below the 99.5 percentile as identified in the WARP specification.	Results will be made available by the end of the 4QFY09.
2009	Reduced Congestion	Mission and Business Results	Transportation	Air Transportation	En-Route weather-related delay hours.	Controller- estimated delay reduction of 42,000 hours.	Maintain proportional reduction in weather-related delays, as traffic increases by 5% per year.	Results will be made available by the end of the 4QFY09.
2009	Safety	Mission and Business Results	Transportation	Air Transportation	Safety - Accident Rate	Fatal accident rate of General Aviation aircraft without on- board weather radar encountering thunderstorms while receiving En Route services reduced from pre-WARP average of 3.5 per year to 2 per year.	baseline- reduction in accident rate for general aviation aircraft without on-board weather radar encountering thunderstorms while receiving En Route services to 2 per	Results will be made available by the end of the 4QFY09.
2009	Reduced Congestion	Processes and Activities	Productivity and Efficiency	Efficiency	TBD	TBD	TBD	Results will be made available by the end of the 4QFY09.
2009	Reduced Congestion	Technology	Reliability and Availability	Availability	System availability (Uptime)	0.9996 system availability.	Meet the required 0.9996 system availability. This number will be an average at all 21 ARTCCs.	Results will be made available by the end of the 4QFY09.
2009	Safety	Technology	Reliability and Availability	Availability	System availability (Uptime)	0.9996 system availability.	Meet the required 0.9996 system availability. This number will be an average at all 21 ARTCCs.	Results will be made available by the end of the 4QFY09.
2009	Reduced Congestion	Technology	Reliability and Availability	Reliability	False weather echoes in mosaic displays (composite of all radar data)	Before WARP mosaic capability, original false weather echoes reduced accuracy of weather displays	Enhance ATC and TMU decisions and capabilities by maintaining 80% reduction of false weather echoes (without	Results will be made available by the end of the 4QFY09.

Performance I	nformation Tabl	e			<u> </u>			
Fiscal Year	Strategic Goal(s) Supported	Measurement Area	Measurement Category	Measurement Grouping	Measurement Indicator	Baseline	Target	Actual Results
						by at least 15%.	reducing real weather echoes) with implementation of Optimal Mosaic.	
2010	Reduced Congestion	Customer Results	Customer Benefit	Customer Satisfaction	Customer Satisfaction - Rate of positive responses from users documented in questionnaire.	Average percent of customers satisfied with WARP is 87%.	Maintain satisfaction rate greater than 85%.	Results will be made available by the end of the 4QFY10.
2010	Safety	Customer Results	Timeliness and Responsiveness	Response Time		Time to produce default Automatic Product Generation (APG) briefing products.	Maintain Product generation time below the 99.5 percentile as identified in the WARP specification.	Results will be made available by the end of the 4QFY10.
2010	Reduced Congestion	Mission and Business Results	Transportation	Air Transportation	En-Route weather-related delay hours.	Controller- estimated delay reduction of 42,000 hours.	Maintain proportional reduction in weather-related delays, as traffic increases by 5% per year.	Results will be made available by the end of the 4QFY10.
2010	Safety	Mission and Business Results	Transportation	Air Transportation	Safety - Accident Rate	Fatal accident rate of General Aviation aircraft without on- board weather radar encountering thunderstorms while receiving En Route services reduced from pre-WARP average of 3.5 per year to 2 per year.	En Route services to 2 per	Results will be made available by the end of the 4QFY10.
2010	Reduced Congestion	Processes and Activities	Productivity and Efficiency	Efficiency	TBD	TBD	TBD	Results will be made available by the end of the 4QFY10.
2010	Reduced Congestion	Technology	Reliability and Availability	Availability	System availability (Uptime)	0.9996 system availability.	Meet the required 0.9996 system availability. This number will be an average at all 21 ARTCCs.	Results will be made available by the end of the 4QFY10.
2010	Safety	Technology	Reliability and Availability	Availability	System availability (Uptime)	0.9996 system availability.	Meet the required 0.9996 system availability. This number will be an average at all 21 ARTCCs.	Results will be made available by the end of the 4QFY10.
2010	Reduced Congestion	Technology	Reliability and Availability	Reliability	False weather echoes in mosaic displays (composite of all radar data)	Before WARP mosaic capability, original false weather echoes reduced accuracy of weather displays by at least 15%.		Results will be made available by the end of the 4QFY10.
2011	Reduced Congestion	Customer Results	Customer Benefit	Customer Satisfaction	Customer Satisfaction - Rate of positive responses from users documented in questionnaire.	Average percent of customers satisfied with WARP is 87%.	Maintain satisfaction rate greater than 85%.	Results will be made available by the end of the 4QFY11.
2011	Safety	Customer Results	Timeliness and Responsiveness	Response Time	WARP Briefing Product generation time	Time to produce default Automatic	Maintain Product generation time below the 99.5	Results will be made available by the end of

Performance II	nformation Table	e						
Fiscal Year	Strategic Goal(s) Supported	Measurement Area	Measurement Category	Measurement Grouping	Measurement Indicator	Baseline	Target	Actual Results
						Product Generation (APG) briefing products.	percentile as identified in the WARP specification.	the 4QFY11.
2011	Reduced Congestion	Mission and Business Results	Transportation	Air Transportation	En-Route weather-related delay hours.	Controller- estimated delay reduction of 42,000 hours.	Maintain proportional reduction in weather-related delays, as traffic increases by 5% per year.	Results will be made available by the end of the 4QFY11.
2011	Safety	Mission and Business Results	Transportation	Air Transportation	Safety - Accident Rate	Fatal accident rate of General Aviation aircraft without on- board weather radar encountering thunderstorms while receiving En Route services reduced from pre-WARP average of 3.5 per year to 2 per year.	Maintain average baseline- reduction in accident rate for general aviation aircraft without on-board weather radar encountering thunderstorms while receiving En Route services to 2 per	Results will be made available by the end of the 4QFY11.
2011	Reduced Congestion	Processes and Activities	Productivity and Efficiency	Efficiency	TBD	TBD	TBD	Results will be made available by the end of the 4QFY11.
2011	Reduced Congestion	Technology	Reliability and Availability	Availability	System availability (Uptime)	0.9996 system availability.	Meet the required 0.9996 system availability. This number will be an average at all 21 ARTCCs.	Results will be made available by the end of the 4QFY11.
2011	Safety	Technology	Reliability and Availability	Availability	System availability (Uptime)	0.9996 system availability.	Meet the required 0.9996 system availability. This number will be an average at all 21 ARTCCs.	Results will be made available by the end of the 4QFY11.
2011	Reduced Congestion	Technology	Reliability and Availability	Reliability	False weather echoes in mosaic displays (composite of all radar data)	Before WARP mosaic capability, original false weather echoes reduced accuracy of weather displays by at least 15%.		Results will be made available by the end of the 4QFY11.
2012	Reduced Congestion	Customer Results	Customer Benefit	Customer Satisfaction	Customer Satisfaction - Rate of positive responses from users documented in questionnaire.	Average percent of customers satisfied with WARP is 87%.	Maintain satisfaction rate greater than 85%.	Results will be made available by the end of the 4QFY12.
2012	Safety	Customer Results	Timeliness and Responsiveness	Response Time	WARP Briefing Product generation time	Time to produce default Automatic Product Generation (APG) briefing products.	Maintain Product generation time below the 99.5 percentile as identified in the WARP specification.	Results will be made available by the end of the 4QFY12.
2012	Reduced Congestion	Mission and Business Results	Transportation	Air Transportation	En-Route weather-related delay hours.	Controller- estimated delay reduction of 42,000 hours.	Maintain proportional reduction in weather-related delays, as traffic increases by 5% per year.	Results will be made available by the end of the 4QFY12.
2012	Safety	Mission and Business Results	Transportation	Air Transportation	Safety - Accident Rate	Fatal accident rate of General Aviation aircraft without on- board weather	Maintain average baseline- reduction in accident rate for general aviation	made available by the end of

Performance In	nformation Table	e						
Fiscal Year	Strategic Goal(s) Supported	Measurement Area	Measurement Category	Measurement Grouping	Measurement Indicator	Baseline	Target	Actual Results
						radar encountering thunderstorms while receiving En Route services reduced from pre-WARP average of 3.5 per year to 2 per year.	En Route services to 2 per	
2012	Reduced Congestion	Processes and Activities	Productivity and Efficiency	Efficiency	TBD	TBD	TBD	Results will be made available by the end of the 4QFY12.
2012	Reduced Congestion	Technology	Reliability and Availability	Availability	System availability (Uptime)	0.9996 system availability.	Meet the required 0.9996 system availability. This number will be an average at all 21 ARTCCs.	Results will be made available by the end of the 4QFY12.
2012	Safety	Technology	Reliability and Availability	Availability	System availability (Uptime)	0.9996 system availability.	Meet the required 0.9996 system availability. This number will be an average at all 21 ARTCCs.	Results will be made available by the end of the 4QFY12.
2012	Reduced Congestion	Technology	Reliability and Availability	Reliability	False weather echoes in mosaic displays (composite of all radar data)	Before WARP mosaic capability, original false weather echoes reduced accuracy of weather displays by at least 15%.		Results will be made available by the end of the 4QFY12.
2013	Reduced Congestion	Customer Results	Customer Benefit	Customer Satisfaction	Customer Satisfaction - Rate of positive responses from users documented in questionnaire.	Average percent of customers satisfied with WARP is 87%.	Maintain satisfaction rate greater than 85%.	Results will be made available by the end of the 4QFY13.
2013	Safety	Customer Results	Timeliness and Responsiveness	Response Time	WARP Briefing Product generation time	Time to produce default Automatic Product Generation (APG) briefing products.	Maintain Product generation time below the 99.5 percentile as identified in the WARP specification.	Results will be made available by the end of the 4QFY13.
2013	Reduced Congestion	Mission and Business Results	Transportation	Air Transportation	En-Route weather-related delay hours.	Controller- estimated delay reduction of 42,000 hours.	Maintain proportional reduction in weather-related delays, as traffic increases by 5% per year.	Results will be made available by the end of the 4QFY13.
2013	Safety	Mission and Business Results	Transportation	Air Transportation	Safety - Accident Rate	Fatal accident rate of General Aviation aircraft without on- board weather radar encountering thunderstorms while receiving En Route services reduced from pre-WARP average of 3.5 per year to 2 per year.	En Route services to 2 per	Results will be made available by the end of the 4QFY13.
2013	Reduced Congestion	Processes and Activities	Productivity and Efficiency	Efficiency	TBD	TBD	TBD	Results will be made available by the end of the 4QFY13.
2013	Reduced Congestion	Technology	Reliability and Availability	Availability	System availability	0.9996 system availability.	Meet the required 0.9996	Results will be made available

Performance Ir	nformation Table	oit 300: FAAXX2 e			,			
Fiscal Year	Strategic Goal(s) Supported	Measurement Area	Measurement Category	Measurement Grouping	Measurement Indicator	Baseline	Target	Actual Results
					(Uptime)		system availability. This number will be an average at all 21 ARTCCs.	by the end of the 4QFY13.
2013	Safety	Technology	Reliability and Availability	Availability	System availability (Uptime)	0.9996 system availability.	Meet the required 0.9996 system availability. This number will be an average at all 21 ARTCCs.	Results will be made available by the end of the 4QFY13.
2013	Reduced Congestion	Technology	Reliability and Availability	Reliability	False weather echoes in mosaic displays (composite of all radar data)	Before WARP mosaic capability, original false weather echoes reduced accuracy of weather displays by at least 15%.	Enhance ATC and TMU decisions and capabilities by maintaining 80% reduction of false weather echoes (without reducing real weather echoes) with implementation of Optimal Mosaic.	Results will be made available by the end of the 4QFY13.
2014	Reduced Congestion	Customer Results	Customer Benefit	Customer Satisfaction	Customer Satisfaction - Rate of positive responses from users documented in questionnaire.	Average percent of customers satisfied with WARP is 87%.	Maintain satisfaction rate greater than 85%.	Results will be made available by the end of the 4QFY14.
2014	Safety	Customer Results	Timeliness and Responsiveness	Response Time		Time to produce default Automatic Product Generation (APG) briefing products.	Maintain Product generation time below the 99.5 percentile as identified in the WARP specification.	Results will be made available by the end of the 4QFY14.
2014	Reduced Congestion	Mission and Business Results	Transportation	Air Transportation	En-Route weather-related delay hours.	Controller- estimated delay reduction of 42,000 hours.	Maintain proportional reduction in weather-related delays, as traffic increases by 5% per year.	Results will be made available by the end of the 4QFY14.
2014	Safety	Mission and Business Results	Transportation	Air Transportation	Safety - Accident Rate	Fatal accident rate of General Aviation aircraft without on- board weather radar encountering thunderstorms while receiving En Route services reduced from pre-WARP average of 3.5 per year to 2 per year.	general aviation aircraft without on-board weather radar encountering thunderstorms while receiving En Route services to 2 per	Results will be made available by the end of the 4QFY14.
2014	Reduced Congestion	Processes and Activities	Productivity and Efficiency	Efficiency	TBD	TBD	TBD	Results will be made available by the end of the 4QFY14.
2014	Reduced Congestion	Technology	Reliability and Availability	Availability	System availability (Uptime)	0.9996 system availability.	Meet the required 0.9996 system availability. This number will be an average at all 21 ARTCCs.	Results will be made available by the end of the 4QFY14.
2014	Safety	Technology	Reliability and Availability	Availability	System availability (Uptime)	0.9996 system availability.	Meet the required 0.9996 system availability. This number will be an average at all 21 ARTCCs.	Results will be made available by the end of the 4QFY14.
2014	Reduced Congestion	Technology	Reliability and Availability	Reliability	False weather echoes in mosaic displays (composite of all	Before WARP mosaic capability, original false	Enhance ATC and TMU decisions and capabilities by	Results will be made available by the end of the 4QFY14.

Performance In	Performance Information Table											
Fiscal Year	Strategic Goal(s) Supported	Measurement Area	Measurement Category	Measurement Grouping	Measurement Indicator	Baseline	Target	Actual Results				
					,	reduced accuracy of weather displays by at least 15%.						

# 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 Yes and integrated into the overall costs of the investment:
- a. If "yes," provide the "Percentage IT Security" for the budget year:
- 2. Is identifying and assessing security and privacy risks a part Yes of the overall risk management effort for each system supporting or part of this investment.

supporting or po								
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 ( existing mixed life cycle syste or Planned Completion Date ( new systems)		
Redacted								
4. Operational Sys	stems - Security Ta	able:		•				
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 Yes the systems part of or supporting this investment been identified by the agency or IG?
  - a. If "yes," have those weaknesses been incorporated into Yes

the agency's plan of action and milestone process?

6. Indicate whether an increase in IT security funding is requested to remediate IT security weaknesses?

a. If "yes," specify the amount, provide a general description of the weakness, and explain how the funding request will remediate the weakness.

Redacted

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			
WARP	No		No, because the system is not a Privacy Act system of records.		No, because the system is not a Privacy Act system of records.			

#### Details for Text Options

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 Yes enterprise architecture?

a. If "no," please explain why?

2. Is this investment included in the agency's EA Transition Yes Strategy?

a. If "yes," provide the investment name as identified in the Transition Strategy provided in the agency's most recent annual EA Assessment.

Weather and Radar Processor (WARP)

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 Air Traffic provided in the agency's most recent annual EA Assessment.

# 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 http://www.egov.gov.

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)
Advisory Capability		Back Office Services		Computers / Automation Management			No Reuse	2

Exhibit 300: FAAXX216: Weather and Radar Processor (WARP) Redacted 1-25-2008

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 http://www.egov.gov.

Agency Component Name	Agency Component Description	FEA SRM Service Domain	FEA SRM Service Type	FEA SRM Component (a)	Service Component	Service Component Reused UPI (b)	Internal or External Reuse? (c)	BY Funding Percentage (d)
	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. (NAS ATC Advisory)							
Weather Advisory Capability	Air Traffic Controller (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. (NAS ATC	Back Office Services	Development and Integration	Instrumentation and Testing			No Reuse	1
Weather Advisory Capability	Air Traffic Controller (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	Business Management Services	Management of Processes	Program / Project Management			No Reuse	9

Exhibit 300: FAAXX216: Weather and Radar Processor (WARP) Redacted 1-25-2008

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 http://www.egov.gov.

Agency Component Name	Agency Component Description	FEA SRM Service Domain	FEA SRM Service Type	FEA SRM Component (a)	Service Component	Service Component Reused UPI (b)	Internal or External Reuse? (c)	BY Funding Percentage (d)
	centers (AOCs). Advisories provide both routine and hazardous weather information and/or flight conditions at airports or along a flight path. (NAS ATC Advisory)							
Weather Advisory Capability	Air Traffic Controller (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. (NAS ATC	Business Management Services	Organizational Management	Network Management			No Reuse	66
Weather Advisory Capability	Air Traffic Controller (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	Digital Asset Services	Knowledge Management	Knowledge Engineering			No Reuse	17

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 http://www.egov.gov.

etc.). Provide this	etc.). Provide this information in the format of the following table. For detailed guidance regarding components, please refer to http://www.egov.gov.							
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)
	a flight path. (NAS ATC Advisory)				(=)	(2)		
Weather Advisory Capability	Air Traffic Controller (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. (NAS ATC	Support Services	Communication	Computer / Telephony Integration			No Reuse	3
Weather Advisory Capability	Air Traffic Controller (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. (NAS ATC	Support Services	Security Management	Audit Trail Capture and Analysis			No Reuse	2

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 Mode		FEA Technical Reference Model (T	'DM) place list the Service Area	as Catagories Standards and
Service Specifications supporting		FEA Technical Reference Model (1	Rivi), please list the Service Area	as, categories, standards, and
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 Engineering	Component Framework	Business Logic	Platform Independent	Redacted
Knowledge Engineering	Component Framework	Presentation / Interface	Content Rendering	Redacted
Audit Trail Capture and Analysis	Component Framework	Security	Supporting Security Services	Redacted
Network Management	Service Access and Delivery	Access Channels	Other Electronic Channels	Redacted
Program / Project Management	Service Access and Delivery	Delivery Channels	Extranet	Redacted
Program / Project Management	Service Access and Delivery	Delivery Channels	Intranet	Redacted
Audit Trail Capture and Analysis	Service Access and Delivery	Service Requirements	Legislative / Compliance	Redacted
Computer / Telephony Integration	Service Access and Delivery	Service Transport	Service Transport	Redacted
Knowledge Engineering	Service Interface and Integration	Interoperability	Data Transformation	Redacted
Network Management	Service Platform and Infrastructure	Database / Storage	Database	Redacted
Network Management	Service Platform and Infrastructure	Database / Storage	Storage	Redacted
Network Management	Service Platform and Infrastructure	Delivery Servers	Application Servers	Redacted
Program / Project Management	Service Platform and Infrastructure	Hardware / Infrastructure	Embedded Technology Devices	Redacted
Network Management	Service Platform and Infrastructure	Hardware / Infrastructure	Local Area Network (LAN)	Redacted
Computers / Automation Management	Service Platform and Infrastructure	Hardware / Infrastructure	Network Devices / Standards	Redacted
Network Management	Service Platform and Infrastructure	Hardware / Infrastructure	Network Devices / Standards	Redacted
Network Management	Service Platform and Infrastructure	Hardware / Infrastructure	Servers / Computers	Redacted
Knowledge Engineering	Service Platform and Infrastructure	Software Engineering	Integrated Development Environment	Redacted
Knowledge Engineering	Service Platform and Infrastructure	Software Engineering	Software Configuration Management	Redacted
Instrumentation and Testing	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)?
  - a. If "yes," please describe.

## Exhibit 300: Part III: For "Operation and Maintenance" investments ONLY (Steady State)

#### Section A: Risk Management (All Capital Assets)

Part III should be completed only for investments identified as "Operation and Maintenance" (Steady State) in response to Question 6 in Part I, Section A above.

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? 5/5/2007

b. Has the Risk Management Plan been significantly

Yes

changed since last year's submission to OMB?

c. If "yes," describe any significant changes:

We haven't significantly changed the WARP Risk Management Plan since last year's submission.

The WARP Team continues to actively monitor risks. The Risk Register is current and has been updated to reflect tech refresh risks. The Team's risk management strategy is based on FAA's Systems Engineering Manual, section 4.10, Risk Management guidance. It provides that all members and stakeholders supporting the WARP program meet periodically to report on and discuss status of identified medium or high program risks; and, present and or identify any potential new risks to the team for discussion, assignment of an owner, and mitigation.

Risk is actively discussed and corrective actions are documented during the WARP bi-weekly Management Team Meeting, the bi-weekly Core Team Meeting, the monthly Program Management Review (PMR) and the monthly Team Meetings.

The WARP team reviews future risks and constraints to ensure the future NAS systems connected to WARP support all requirements, workloads, and funding changes. Strong project management oversight is applied to monitor the reliability of each WARP system, document issues, and mitigate risks by implementing solutions quickly. The WARP limited tech refresh addresses PART weaknesses and will mitigate the availability slippage discussed in the Performance table.

To eliminate, mitigate, or manage risk, and be actively managing risk throughout the investment's life-cycle, the WARP product team has developed a Risk Management Plan (RMP) that describes the process for implementing pro-active risk management as part of the overall management of the WARP program. The RMP serves as a basis for identifying alternatives to achieve cost, schedule, and performance goals; provides risk information for milestone decisions; and provides a process for monitoring the health of the program as it proceeds. The RMP describes the methodology used in identifying, analyzing, prioritizing, and tracking risk drivers; and developing risk mitigation plans. It assigns specific responsibilities for the management of risk and prescribes the documenting, monitoring, and reporting processes to be followed.

- 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?

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

1. Was operational analysis conducted?

Yes

a. If "yes," provide the date the analysis was completed.

6/18/2007

b. If "yes," what were the results?

Strategic: Analysis of controller case studies confirmed that WARP provided a delay reduction of 42,000 hours in FY06. Revised estimating methodology using more conservative elements of controller estimates indicates delay reduction of 31,400 hours for FY07.

The FAA recorded 2 fatal weather-related accidents involving GA aircraft without on-board weather radar encountering thunderstorms while receiving En Route Services in each of the years 2004, 2005, and 2006. No thunderstorm-attributable accidents occurred in the first 4 months of 2007.

For FY06, a TMU survey indicates a reduction in weather data gathering time of 10 minutes, a 67% reduction in weather data gathering time. A more appropriate metric will be used in future years.

Customer: WARP uses a Satisfaction survey to measure how well WARP products serve the needs of the air-traffic controller or how well the products provide a clear picture of the weather to meteorologists. Current results show a slight decline from last year's (FY06) 87% satisfaction rate, however a low response rate with a lack of geographical diversity indicate no statistically significant change.

Financial: The updated OA verified that the actual system cost and the cost to maintain the WARP system is in accordance with established cost baselines (B/Ls). In addition, since 2003, independent benefit analyses conducted by MCR Federal & ATO-P show the system annual benefits are in line with the original baseline (B/L) estimates.

Technical Performance: Analysis of WARP Monthly Service Reports indicate a trend that WARP will achieve availability requirements for FY07 (i.e., 0.9996 System Availability). For FY07, reports to date indicate an availability of 0.9993 over 8 months. Final results will be made available by the end of the 4QFY07.

Empirical study shows that the WARP Optimal Mosaic reduces false weather echoes by 80%, enhancing mosaic functionality and improving WARP reliability, accuracy, and effectiveness.

Innovation: The WARP team periodically collects performance and support data, reviews the Departmental and FAA Enterprise Architecture (EA), and conducts analysis to assess if WARP adheres to the current Departmental and FAA EA. New technical solutions for follow-on WARP capability are currently in the planning phase, including new technical solutions and other systems developed by other agencies.

- c. If "no," please explain why it was not conducted and if there are any plans to conduct operational analysis in the future:
- 2. Complete the following table to compare actual cost performance against the planned cost performance baseline. Milestones reported may include specific individual scheduled preventative and predictable corrective maintenance activities, or may be the total of planned annual operation and maintenance efforts).
- a. What costs are included in the reported Cost/Schedule Contractor and Government Performance information (Government Only/Contractor Only/Both)?
  - 2.b Comparison of Plan vs. Actual Performance Table: Redacted

Comparison of	Comparison of Plan vs. Actual Performance Table								
			ned	Act	tual	Variance			
Milestone Number	Description of Milestone	Completion Date (mm/dd/yyy y)	Total Cost(\$M)	Completion Date (mm/dd/yyyy)	Total Cost(\$M)	Schedule (# days)	Cost(\$M)		
Redacted									