

Exhibit 300 FY2011

FAAXX216: Weather and Radar Processor (WARP)

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

Description: In Part I, complete Sections A, B, C, and D for all capital assets (IT and non-IT). Complete Sections E and F for IT capital assets.

I.A. Overview (All Capital Assets)

Description: The following series of questions are to be completed for all investments.

I.A.1. Date of Submission:	2010-02-12
I.A.2. Agency:	021
I.A.3. Bureau:	12
I.A.4. Name of this Investment: Description: (Up to 250 characters)	FAAXX216: Weather and Radar Processor (WARP)
I.A.5. Unique Project (Investment) Identifier: Description: For IT investment only, see section 53.9. For all other, use agency ID system.	021-12-01-21-01-1020-00
I.A.6. What kind of investment will this be in FY2011? Description: Please NOTE: Investments moving to O&M in FY2011, with Planning/Acquisition activities prior to FY2011 should not select O&M. These investments should indicate their current status.	Operations and Maintenance
I.A.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; this description may include links to relevant information which should include relevant GAO reports, and links to relevant findings of independent audits. Description: (Up to 2500 characters)	
<p>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 FAA flight plan goals of greater capacity & increased safety. WARP reduces air traffic delays caused by thunderstorms & supplies forecast wind data that is crucial to automated traffic-flow tools. For BY11, WARP will continue to provide these capabilities & align w/ the NAS EA. The WARP Program Office will continue to provide transparency, program management, & governance to keep the program on schedule & w/in budget to meet benefits. The FAA has operational WARPs at ARTCCs (21), ATCSCC (1), WJHTC (2), & 1 at the contractor facility in Melbourne, FL. WARP provides weather information to FAA ATCs, FAA TMU specialists, and NWS Meteorologists. WARP gathers NEXRAD data & processes it into weather displays for ATCs' screens. It receives aviation weather data from the NWS & 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. WARP supplies customers with necessary data w/o duplication of components or comm services. The FAA supplies WARP weather information directly to DoD, Coast Guard, TSA, & other agencies on authorization by an executive order, in a national emergency, or if weather information is not available by any other means. The WARP investment is not collaborative; is in Evaluate phase of CPIC. BY09-10 funding increased & BY11-15 funding decreased. The funding increase is necessitated by delay & uncertainty of the follow on program resulting in the need for sustainment activities to achieve & maintain performance goals. Sustainment activities will introduce new technology resulting in lower operating costs; hence the decrease in BY11-15 funding. The ATO EC approved WARP for F&E & O&M funds through FY14 and FY17, respectively to sustain WARP until the implementation of NextGen. Planned actions include, but are not limited to hardware replacement/upgrade. Extension of funding does not change WARP functionality; WARP remains steady-state. The WARP Program shares solutions w/ NextGen to achieve NextGen goals at lesser cost & ahead of schedule.</p>	
I.A.8.a. Enter dates for approved rebaselining, alternative analysis, and risk management plan and risk register information. Description: Provide here the date of any approved rebaselining within the past year, the date for the most recent (or planned) alternatives analysis for this investment, and whether this investment has a risk management plan and risk register. (Up to 500 characters)	
<p>The Air Traffic Organization (ATO) Executive Council (EC) approved WARP for a baseline extension on 2009-04-07. The date of the most recent WARP alternatives analysis was 1999-10-15. The NextGen weather solution set is planning to conduct an alternatives analysis for WARP integration/replacement in FY11. The WARP Program has a risk management plan dated 2009-05-15. The risk register was last updated 2009-07-22.</p>	
I.A.9. Did the Agency's Executive/Investment Committee approve this request?	yes
I.A.9.a. If "yes," what was the date of this approval?	2009-04-07
I.A.12. If this investment is a financial management system, then please fill out the following as reported in the most recent financial systems inventory (FMSI):	
I.A.12.a. Financial Management System Table	
I.A.12.b. If this investment is a financial management system AND the investment is part of the core financial system then select the primary FFMIA compliance area that this investment addresses (choose only one):	

I.B. Summary of Funding (Budget Authority for Capital Assets)

I.B.1. Summary of Funding Table

Description: 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. Funding for all costs associated with the entire life-cycle of the investment should be included in this report. Funding levels should be shown for budget authority by year consistent with funding levels in Exhibit 53. The Summary of Funding table shall include the amounts allocated to the investment from, and should be directly tied to, the Fiscal Year Budget. This includes direct appropriations (discretionary or mandatory accounts), user fees, and approved self-funding activities and will provide the actual annual "budget" for the investment. This "budget" will be a subset of the congressionally approved budget for each fiscal year. This will provide Departments/Agencies and OMB useful information on the actual Fiscal Year dollars being asked for and spent on an investment.

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.

I.B.1.a. Summary of Spending for Project Phases (Reported in Millions)

	PY-1 and earlier	PY 2009	CY 2010	BY 2011
Planning	\$1.400	\$0.000	\$0.000	\$0.000
Acquisition	\$153.900	\$0.000	\$0.000	\$0.000
Subtotal Planning and Acquisition	\$155.300	\$0.000	\$0.000	\$0.000
Operations and Maintenance	\$127.040	\$20.525	\$33.003	\$16.865
Disposition Costs (Optional)	\$0.000	\$0.000	\$0.000	\$0.000
SUBTOTAL	\$282.340	\$20.525	\$33.003	\$16.865
Government FTE Costs	\$11.070	\$1.836	\$1.891	\$1.948
TOTAL	\$293.410	\$22.361	\$34.894	\$18.813

I.B.1.b. Summary of Spending for Project Phases (Government FTE Costs Only)

	PY-1 and earlier	PY 2009	CY 2010	BY 2011
Number of FTE represented by Costs	66	12	12	12

I.B.2. If the summary of funding has changed from the FY2010 President's budget request, briefly explain those changes:

Description: (Up to 2500 characters)

Budget Year (BY) 2009 through 2015 funding has been increased. This increase is necessitated by the delay and uncertainty of the follow on program resulting in the need for sustainment activities. WARP has been approved by the ATO Executive Council for F&E and O&M funds through FY14 and FY17, respectively to sustain WARP until the implementation of NextGen. Extension of funding does not change WARP functionality; WARP remains steady-state. The WARP investment will not require the FAA to hire additional FTEs. Rationale: Not required.

I.D. Performance Information (All Capital Assets)

I.D.1. Performance Information Table.

Description: 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 and the relevant Agency Segment Architecture. The investment must discuss its performance measures in support of the agency's mission and strategic goals as outlined in the corresponding Segment Architecture. Performance measures (indicators) must be provided. 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 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 <http://www.whitehouse.gov/omb/e-gov/>. The table can be extended to include performance measures for years beyond the next President's Budget.

Fiscal Year	Strategic Goal(s) Supported	Measurement Area	Measurement Grouping	Measurement Indicator
2004	Mobility	Processes and Activities	Efficiency	En route weather-related delay hours.
2004	Safety	Mission and Business Results	Air Transportation	Safety - Accident Rate
2004	Reduced Congestion	Technology	Availability	System availability (Uptime).
2004	Safety	Customer Results	Service Availability	System availability (Uptime).
2005	Reduced Congestion	Customer Results	Customer Satisfaction	Customer Satisfaction - Rate of positive responses from users as documented in questionnaire.
2005	Reduced Congestion	Mission and Business Results	Air Transportation	En route weather-related delay hours.
2005	Mobility	Mission and Business Results	Air Transportation	En route weather-related delay hours.
2005	Safety	Mission and Business Results	Air Transportation	Safety - Accident Rate
2005	Reduced Congestion	Processes and Activities	Efficiency	TMU decision-making time for strategic situations.
2005	Reduced Congestion	Technology	Availability	System availability (Uptime).

2005	Safety	Technology	Availability	System availability (Uptime).
2005	Reduced Congestion	Processes and Activities	Efficiency	Reduce false weather echoes (without reducing real weather echoes) in mosaic displays (composite of all radar data) to improve accuracy for air traffic controllers and Traffic Management Unit (TMU) personnel.
2006	Safety	Technology	Availability	System availability (Uptime).
2006	Reduced Congestion	Technology	Availability	System availability (Uptime).
2006	Reduced Congestion	Technology	Reliability	False weather echoes in mosaic displays (composite of all radar data)
2006	Reduced Congestion	Customer Results	Customer Satisfaction	Customer Satisfaction - Rate of positive responses from users documented in questionnaire.
2006	Reduced Congestion	Mission and Business Results	Air Transportation	En-Route weather-related delay hours.
2006	Safety	Mission and Business Results	Air Transportation	Safety - Accident Rate
2006	Safety	Customer Results	Response Time	TMU decision-making time for strategic situations.
2006	Reduced Congestion	Processes and Activities	Efficiency	TMU decision-making time for strategic situations.
2007	Reduced Congestion	Customer Results	Customer Satisfaction	Customer Satisfaction - Rate of positive responses from users documented in questionnaire.
2007	Safety	Mission and Business Results	Air Transportation	Safety - Accident Rate
2007	Reduced Congestion	Technology	Reliability	False weather echoes in mosaic displays (composite of all radar data)
2007	Reduced Congestion	Mission and Business Results	Air Transportation	En route weather-related delay hours.
2007	Reduced Congestion	Processes and Activities	Efficiency	TMU decision-making time for strategic situations.
2007	Reduced Congestion	Technology	Availability	System availability (Uptime).
2007	Safety	Customer Results	Response Time	TMU decision-making time for strategic situations.
2007	Safety	Technology	Availability	System availability (Uptime).
2008	Safety	Technology	Availability	System availability (Uptime)
2008	Reduced Congestion	Processes and Activities	Efficiency	WARP Base Reflectivity ARTCC radar mosaic product generation time: This goal replaces the "TMU decision-making time" goal for the out years thru 2015.
2008	Reduced Congestion	Customer Results	Customer Satisfaction	Customer Satisfaction - Rate of positive responses from users documented in questionnaire
2008	Reduced Congestion	Mission and Business Results	Air Transportation	En route weather-related delay hours
2008	Safety	Mission and Business Results	Air Transportation	Safety - Accident Rate
2008	Reduced Congestion	Technology	Reliability	False weather echoes in mosaic displays (composite of all radar data)
2009	Safety	Technology	Availability	System availability (Uptime)
2009	Reduced Congestion	Processes and Activities	Efficiency	WARP Base Reflectivity ARTCC radar mosaic product generation time
2009	Reduced Congestion	Customer Results	Customer Satisfaction	Customer Satisfaction - Rate of positive responses from users documented in questionnaire.
2009	Reduced Congestion	Mission and Business Results	Air Transportation	En-Route weather-related delay hours
2009	Safety	Mission and Business Results	Air Transportation	Safety - Accident Rate
2009	Reduced Congestion	Technology	Reliability	False weather echoes in mosaic displays (composite of all radar data)
2010	Safety	Technology	Availability	System availability (Uptime)
2010	Reduced Congestion	Processes and Activities	Efficiency	WARP Base Reflectivity ARTCC radar mosaic product generation time
2010	Reduced Congestion	Customer Results	Customer Satisfaction	Customer Satisfaction - Rate of positive responses from users documented in questionnaire
2010	Reduced Congestion	Mission and Business Results	Air Transportation	En-Route weather-related delay hours

2010	Safety	Mission and Business Results	Air Transportation	Safety - Accident Rate
2010	Reduced Congestion	Technology	Reliability	False weather echoes in mosaic displays (composite of all radar data)
2011	Safety	Technology	Availability	System availability (Uptime)
2011	Reduced Congestion	Processes and Activities	Efficiency	WARP Base Reflectivity ARTCC radar mosaic product generation time
2011	Reduced Congestion	Customer Results	Customer Satisfaction	Customer Satisfaction - rate of positive responses from users documented in questionnaire
2011	Reduced Congestion	Mission and Business Results	Air Transportation	En-Route weather-related delay hours
2011	Safety	Mission and Business Results	Air Transportation	Safety - Accident Rate
2011	Reduced Congestion	Technology	Reliability	False weather echoes in mosaic displays (composite of all radar data)
2012	Safety	Technology	Availability	System availability (Uptime)
2012	Reduced Congestion	Processes and Activities	Efficiency	WARP Base Reflectivity ARTCC radar mosaic product generation time
2012	Reduced Congestion	Customer Results	Customer Satisfaction	Customer Satisfaction - rate of positive responses from users documented in questionnaire.
2012	Reduced Congestion	Mission and Business Results	Air Transportation	En-Route weather-related delay hours.
2012	Safety	Mission and Business Results	Air Transportation	Safety - Accident Rate
2012	Reduced Congestion	Technology	Reliability	False weather echoes in mosaic displays (composite of all radar data)
2013	Safety	Technology	Availability	System availability (Uptime)
2013	Reduced Congestion	Processes and Activities	Efficiency	WARP Base Reflectivity ARTCC radar mosaic product generation time
2013	Reduced Congestion	Customer Results	Customer Satisfaction	Customer Satisfaction - rate of positive responses from users documented in questionnaire.
2013	Reduced Congestion	Mission and Business Results	Air Transportation	En-Route weather-related delay hours
2013	Safety	Mission and Business Results	Air Transportation	Safety - Accident Rate
2013	Reduced Congestion	Technology	Reliability	False weather echoes in mosaic displays (composite of all radar data)
2014	Safety	Technology	Availability	System availability (Uptime)
2014	Reduced Congestion	Processes and Activities	Efficiency	WARP Base Reflectivity ARTCC radar mosaic product generation time
2014	Reduced Congestion	Customer Results	Customer Satisfaction	Customer Satisfaction - rate of positive responses from users documented in questionnaire.
2014	Reduced Congestion	Mission and Business Results	Air Transportation	En-Route weather-related delay hours.
2014	Safety	Mission and Business Results	Air Transportation	Safety - Accident Rate
2014	Reduced Congestion	Technology	Reliability	False weather echoes in mosaic displays (composite of all radar data)
2015	Safety	Technology	Availability	System availability (Uptime)
2015	Reduced Congestion	Processes and Activities	Efficiency	WARP Base Reflectivity ARTCC radar mosaic product generation time
2015	Reduced Congestion	Customer Results	Customer Satisfaction	Customer Satisfaction - rate of positive responses from users documented in questionnaire
2015	Reduced Congestion	Mission and Business Results	Air Transportation	En-Route weather-related delay hours.
2015	Safety	Mission and Business Results	Air Transportation	Safety - Accident Rate
2015	Reduced Congestion	Technology	Reliability	False weather echoes in mosaic displays (composite of all radar data)
2016	Safety	Technology	Availability	System availability (Uptime)
2016	Reduced Congestion	Processes and Activities	Efficiency	WARP Base Reflectivity ARTCC radar mosaic product generation time
2016	Reduced Congestion	Customer Results	Customer Satisfaction	Customer Satisfaction - Rate of positive responses from users documented in questionnaire.
2016	Reduced Congestion	Mission and Business Results	Air Transportation	En-Route weather-related delay

				hours.
2016	Safety	Mission and Business Results	Air Transportation	Safety - Accident Rate
2016	Reduced Congestion	Technology	Reliability	False weather echoes in mosaic displays (composite of all radar data)
2017	Safety	Technology	Availability	System availability (Uptime)
2017	Reduced Congestion	Processes and Activities	Efficiency	WARP Base Reflectivity ARTCC radar mosaic product generation time
2017	Reduced Congestion	Customer Results	Customer Satisfaction	Customer Satisfaction - Rate of positive responses from users documented in questionnaire.
2017	Reduced Congestion	Mission and Business Results	Air Transportation	En-Route weather-related delay hours.
2017	Safety	Mission and Business Results	Air Transportation	Safety - Accident Rate
2017	Reduced Congestion	Technology	Reliability	False weather echoes in mosaic displays (composite of all radar data)

I.F. Enterprise Architecture (EA) (IT Capital Assets only)

Description: 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.

Have the requisite investment-level architecture documentation requirements (e.g., reference model mappings, FTF mappings, etc.) for this investment been documented in the corresponding Segment Architecture? For detailed guidance regarding segment architecture requirements, please refer to <http://www.whitehouse.gov/omb/e-gov/>. See this guidance also regarding the reporting of six digit codes corresponding to agency segment architectures in Exhibit 53, and, for limited cases determined by the Chief Architect, reporting an investment alignment with multiple segments.

I.F.1. Is this investment included in your agency's target enterprise architecture? yes

Part IV: Planning for "Multi-Agency Collaboration" ONLY

Description: Part IV should be completed only for investments identified as an E-Gov initiative, a Line of Business (LOB) Initiative, or a Multi-Agency Collaboration effort. The "Multi-Agency Collaboration" choice should be selected in response to Question 6 in Part I, Section A above. Investments identified as "Multi-Agency Collaboration" will complete only Parts I and IV of the exhibit 300.

IV.A. Multi-Agency Collaboration Oversight (All Capital Assets)

Description: Multi-agency Collaborations, such as E-Gov and LOB initiatives, should develop a joint exhibit 300.

IV.A.1. Stakeholder Table

Description: As a joint exhibit 300, please identify all the agency stakeholders (all participating agencies, this should not be limited to agencies with financial commitment). All agency stakeholders should be listed regardless of approval. If the partner agency has approved this joint exhibit 300 please provide the date of approval.

IV.A.5. Does this investment replace any legacy systems investments?

Description: Disposition costs (costs of retirement of legacy systems) may be included as a category in Part I, Section B, Summary of Funding, or in separate investments, classified as major or non-major. For legacy system investments being replaced by this investment, include the following data on these legacy investments.