

## Exhibit 300 FY2010

### FAAXX248: Airport Surface Detection Equipment - Model X (ASDE-X)

#### 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:	2008-07-18
I.A.2. Agency:	021
I.A.3. Bureau:	12
I.A.4. Name of this Capital Asset: Description: (Up to 250 characters)	FAAXX248: Airport Surface Detection Equipment - Model X (ASDE-X)
I.A.5. Unique Project (Investment) Identifier: Description: For IT investment only, see section 53. For all other, use agency ID system.	021-12-01-20-01-1040-00
I.A.6. What kind of investment will this be in FY2010? Description: Please NOTE: Investments moving to O&M in FY2010, with Planning/Acquisition activities prior to FY2010 should not select O&M. These investments should indicate their current status.	Mixed Life Cycle
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: Description: (Up to 2500 characters)	<p>ASDE-X is a surface surveillance system that provides multi-sensor airport surveillance with identification and conflict alerting to air traffic controllers. It was developed to aid in preventing surface collisions and reducing the most severe runway incursions. ASDE-X provides a visual representation of the traffic situation on the airport movement area and arrival corridors. It improves the ability of controllers to maintain awareness of the operational environment and to anticipate contingencies. ASDE-X supports the FAA strategic goals for Increased Safety and Greater Capacity which aligns with DOT's goals of increased Safety and Mobility. It reduces the risk of runway incursions by providing: data tags for all transponder equipped vehicles, enhanced safety performance by supporting target projections and intersecting runway alerts, more accurate positions with flight call signs and aircraft intentions on the controller's display, and improved surface surveillance during rain. With data tags, ASDE-X provides the ability to: monitor whether aircraft are following their prescribed taxi routes, validate the proper beacon code is associated with each aircraft, and accurately identify each aircraft within a queue. This prevents unnecessary communication and reduces time spent between clearance deliveries. ASDE-X was added to the Operational Evolution Plan (OEP) version 8 in April 2006. OEP is the FAA's commitment to the aviation community for building capacity and increasing efficiency at the 35 OEP airports. ASDE-X addresses the runway safety performance gap. During FY2001-2004, there were approximately 257 million aircraft operations and 1,395 runway incursions; an average of one runway incursion per day. Historical data indicated that if no intervening actions were taken 15 fatal runway collisions at towered airports would occur over the years 2003-2022 killing 700-800 people and seriously injuring 200 others. ASDE-X is in the Solution Implementation and In-Service phases of the FAA Acquisition Management System, equivalent to the Control and Evaluation phases of the OMB CPIC Cycle. As of July 2008, there are 12 operational systems. A total of three (3) support systems and 35 operational systems are planned, the last four (4) of which will become operational in BY10. The program office is planning a tech refresh in 2012. In FY05, a JRC rebaseline was requested and was based on a ROI calculation that was approved September 5, 2005.</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?	2005-09-05
I.A.10. Did the Project Manager review this Exhibit?	yes
I.A.12. Has the agency developed and/or promoted cost effective, energy-efficient and environmentally sustainable techniques or practices for this project?	yes
I.A.12.a. Will this investment include electronic assets (including computers)?	yes
I.A.12.b. Is this investment for new construction or major retrofit of a Federal building or facility? (answer applicable to non-IT assets only)	no
I.A.12.b.1. If "yes," is an ESPC or UESC being used to help fund this investment?	
I.A.12.b.2. If "yes," will this investment meet sustainable design principles?	
I.A.12.b.3. If "yes," is it designed to be 30% more energy efficient than relevant code?	
I.A.13. Does this investment directly support any of the PMA initiatives?	no
I.A.13.a. If "yes," select all that apply:	
I.A.13.b. Briefly and specifically describe for each selected how	

<p>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?)</p> <p>Description: (Up to 500 characters)</p>	
<p>I.A.14. Does this investment support a program assessed using the Program Assessment Rating Tool (PART)?</p> <p>Description: (For more information about the PART, visit <a href="http://www.whitehouse.gov/omb/part">www.whitehouse.gov/omb/part</a>.)</p>	no
I.A.14.a. If "yes," does this investment address a weakness found during a PART review?	
I.A.14.b. If "yes," what is the name of the PARTed program?	
I.A.14.c. If "yes," what rating did the PART receive?	
I.A.15. Is this investment for information technology?	yes
<p>I.A.16 What is the level of the IT Project? (per CIO Council PM Guidance)</p> <p>Description: Level 1 - Projects with low-to-moderate complexity and risk. Example: Bureau-level project such as a stand-alone information system that has low- to-moderate complexity and risk.</p> <p>Level 2 - Projects with high complexity and/or risk which are critical to the mission of the organization. Examples: Projects that are part of a portfolio of projects/systems that impact each other and/or impact mission activities. Department-wide projects that impact cross-organizational missions, such as an agency-wide system integration that includes large scale Enterprise Resource Planning (e.g., the DoD Business Mgmt Modernization Program).</p> <p>Level 3 - Projects that have high complexity, and/or risk, and have government-wide impact. Examples: Government-wide initiative (E-GOV, President's Management Agenda). High interest projects with Congress, GAO, OMB, or the general public. Cross-cutting initiative (Homeland Security).</p>	Level 2
I.A.17. In addition to the answer in 1.A.11.d, 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
I.A.18. Is this investment or any project(s) within this investment identified as "high risk" on the Q4-FY 2008 agency high risk report? (per OMB Memorandum M-05-23)	no
I.A.19. Is this a financial management system?	no
I.A.19.a. If "yes," does this investment address a FFIA compliance area?	
I.A.19.a.1. If "yes," which compliance area:	
Description: (Up to 250 characters)	
I.A.19.a.2. If "no," what does it address?	
Description: (Up to 500 characters)	
I.A.19.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	
Description: (Up to 2500 characters)	
I.A.20. What is the percentage breakout for the total FY2010 funding request for the following?	
Description: (This should total 100%)	
I.A.20.a. Hardware	0
I.A.20.b. Software	1
I.A.20.c. Services	99
I.A.20.d. Other	0
I.A.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?	yes
I.A.23. Are the records produced by this investment appropriately scheduled with the National Archives and Records Administration's approval?	no
I.A.24. Does this investment directly support one of the GAO High Risk Areas?	no
<b>I.B. Summary of Spending (All Capital Assets)</b>	
<p>I.B.1 Summary of Spending Table</p> <p>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,</p>	

decommissioning, and/or restoration costs. The costs associated with the entire life-cycle of the investment should be included in this report.

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

	PY-1 and earlier	PY 2008	CY 2009	BY 2010
Planning	\$0.000	\$0.000	\$0.000	\$0.000
Acquisition	\$401.700	\$45.500	\$33.400	\$17.300
Subtotal Planning and Acquisition	\$401.700	\$45.500	\$33.400	\$17.300
Operations and Maintenance	\$9.300	\$3.810	\$4.940	\$5.570
TOTAL	\$411.000	\$49.310	\$38.340	\$22.870
Government FTE Costs	\$10.575	\$1.932	\$1.976	\$2.022

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

	PY-1 and earlier	PY 2008	CY 2009	BY 2010
Number of FTE represented by cost	0	0	0	0

I.B.2. Will this project require the agency to hire additional FTE's? no

I.B.2.a. If "yes," How many and in what year?

Description: (Up to 500 characters)

I.B.3. If the summary of spending has changed from the FY2009 President's budget request, briefly explain those changes:

Description: (Up to 2500 characters)

For FY09, the Omnibus Appropriations Bill provided an additional \$1.0M, increasing the appropriation from \$32.4M to \$33.4M. For FY10, the initial OMB Passback provided an additional \$6.2M, increasing the appropriation from \$11.1M to \$17.3M. All of the this is in accordance with the Administrator's call to accelerate the ASDE-X implementation schedule.

**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. 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 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 the next President's Budget.

Fiscal Year	Strategic Goal(s) Supported	Measurement Area	Measurement Grouping	Measurement Indicator
2005	Efficiency	Customer Results	Delivery Time	Normalized annual taxi-out savings in TY\$
2005	Efficiency	Mission and Business Results	Air Transportation	Normalized annual taxi-out savings in hours
2005	Safety	Mission and Business Results	Air Transportation	Number of Category A&B Runway Incursions at the 35 ASDE-X airports since program start (FY04)
2005	Safety	Processes and Activities	Errors	Number of OEs that caused A&B RWI at the 35 ASDE-X airports since program start (FY04)
2005	Safety	Technology	Availability	Number of unscheduled outage hours per system per year
2006	Efficiency	Customer Results	Delivery Time	Normalized annual taxi-out savings in TY\$
2006	Efficiency	Mission and Business Results	Air Transportation	Normalized annual taxi-out savings in hours
2006	Safety	Mission and Business Results	Air Transportation	Number of Category A&B

				Runway Incursions at the 35 ASDE-X airports since program start (FY04)
2006	Safety	Processes and Activities	Errors	Number of OEs that caused A&B RWI at the 35 ASDE-X airports since program start (FY04)
2006	Safety	Technology	Availability	Number of unscheduled outage hours per system per year
2007	Efficiency	Customer Results	Delivery Time	Normalized annual taxi-out savings in TY\$
2007	Efficiency	Mission and Business Results	Air Transportation	Normalized annual taxi-out savings in hours
2007	Safety	Mission and Business Results	Air Transportation	Number of Category A&B Runway Incursions at the 35 ASDE-X airports since program start (FY04)
2007	Safety	Processes and Activities	Cycle Time	Number of OEs that caused A&B RWI at the 35 ASDE-X airports since program start (FY04)
2007	Safety	Technology	Availability	Number of unscheduled outage hours per system per year
2008	Efficiency	Customer Results	Delivery Time	Normalized annual taxi-out savings in TY\$
2008	Efficiency	Mission and Business Results	Air Transportation	Normalized annual taxi-out savings in hours
2008	Safety	Mission and Business Results	Air Transportation	Number of Category A&B Runway Incursions at the 35 ASDE-X airports since program start (FY04)
2008	Safety	Processes and Activities	Errors	Number of OEs that caused A&B RWI at the 35 ASDE-X airports since program start (FY04)
2008	Safety	Technology	Availability	Number of unscheduled outage hours per system per year
2009	Efficiency	Customer Results	Delivery Time	Normalized annual taxi-out savings in TY\$
2009	Efficiency	Mission and Business Results	Air Transportation	Normalized annual taxi-out savings in hours
2009	Safety	Mission and Business Results	Air Transportation	Number of Category A&B Runway Incursions at the 35 ASDE-X airports since program start (FY04)
2009	Safety	Processes and Activities	Errors	Number of OEs that caused A&B RWI at the 35 ASDE-X airports since program start (FY04)
2009	Safety	Technology	Availability	Number of unscheduled outage hours per system per year
2010	Efficiency	Customer Results	Delivery Time	Normalized annual taxi-out savings in TY\$
2010	Efficiency	Mission and Business Results	Air Transportation	Normalized annual taxi-out savings in hours
2010	Safety	Mission and Business Results	Air Transportation	Number of Category A&B Runway Incursions at the 35 ASDE-X airports since program start (FY04)
2010	Safety	Processes and Activities	Errors	Number of OEs that caused A&B RWI at the 35 ASDE-X airports since program start (FY04)
2010	Safety	Technology	Availability	Number of unscheduled outage hours per system per year
2011	Efficiency	Customer Results	Delivery Time	Normalized annual taxi-out savings in TY\$
2011	Efficiency	Mission and Business Results	Air Transportation	Normalized annual taxi-out savings in hours
2011	Safety	Mission and Business Results	Air Transportation	Number of Category A&B Runway Incursions at the 35 ASDE-X airports since program start (FY04)
2011	Safety	Processes and Activities	Errors	Number of OEs that caused A&B RWI at the 35 ASDE-X airports since program start (FY04)
2011	Safety	Technology	Availability	Number of unscheduled outage hours per system per year

2012	Efficiency	Customer Results	Delivery Time	Normalized annual taxi-out savings in TY\$
2012	Efficiency	Mission and Business Results	Air Transportation	Normalized annual taxi-out savings in hours
2012	Safety	Mission and Business Results	Air Transportation	Number of Category A&B Runway Incursions at the 35 ASDE-X airports since program start (FY04)
2012	Safety	Processes and Activities	Errors	Number of OEs that caused A&B RWI at the 35 ASDE-X airports since program start (FY04)
2012	Safety	Technology	Availability	Number of unscheduled outage hours per system per year
2013	Efficiency	Customer Results	Delivery Time	Normalized annual taxi-out savings in TY\$
2013	Efficiency	Mission and Business Results	Air Transportation	Normalized annual taxi-out savings in hours
2013	Safety	Mission and Business Results	Air Transportation	Number of Category A&B Runway Incursions at the 35 ASDE-X airports since program start (FY04)
2013	Safety	Processes and Activities	Errors	Number of OEs that caused A&B RWI at the 35 ASDE-X airports since program start (FY04)
2013	Safety	Technology	Availability	Number of unscheduled outage hours per system per year

### 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.

I.F.1. Is this investment included in your agency's target enterprise architecture?	yes
I.F.1.a. If "no," please explain why? Description: (Up to 2500 characters)	
I.F.2. Is this investment included in the agency's EA Transition Strategy?	yes
I.F.2.a. If "yes," provide the investment name as identified in the Transition Strategy provided in the agency's most recent annual EA Assessment. Description: (Up to 500 characters)	Airport Surface Detection Equipment - Model X (ASDE-X)
I.F.2.b. If "no," please explain why? Description: (Up to 2500 characters)	
I.F.3. Is this investment identified in a completed and approved segment architecture?	yes
I.F.3.a. If "yes," provide the six digit code corresponding to the agency segment architecture. The segment architecture codes are maintained by the agency Chief Architect. For detailed guidance regarding segment architecture codes, please refer to <a href="http://www.egov.gov">http://www.egov.gov</a> . Description: (In the format "XXX-000")	102-000

#### I.F.4. Service Component Reference Model (SRM) Table

**Description:** 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>.

- Use existing SRM Components or identify as "NEW". A "NEW" component is one not already identified as a service component in the FEA SRM.
- 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.
- '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.
- 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 this column can, but are not required to, add up to 100%.

Agency Component Name	Agency Component Description	FEA SRM Service Type	FEA SRM Component (a)	Service Component Reused - Component Name (b)
Surface Separation Capability	Aircraft are separated from vehicle movements on the	Visualization	Mapping / Geospatial / Elevation / GPS	

	airport movement area and from designated critical zones, etc. Standards are employed to ensure safe operation on the surface. Surface separation of aircraft while they are operating on the airport surface is a shared responsibility. (ATC Separation Capability)			
Surface Separation Capability	Aircraft are separated from vehicle movements on the airport movement area and from designated critical zones, etc. Standards are employed to ensure safe operation on the surface. Surface separation of aircraft while they are operating on the airport surface is a shared responsibility. (ATC Separation Capability)	Knowledge Discovery	Modeling	
Surface Separation Capability	Aircraft are separated from vehicle movements on the airport movement area and from designated critical zones, etc. Standards are employed to ensure safe operation on the surface. Surface separation of aircraft while they are operating on the airport surface is a shared responsibility. (ATC Separation Capability)	Knowledge Discovery	Simulation	

#### I.F.5. Technical Reference Model (TRM) Table

Description: 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.

- 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.

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)
Mapping / Geospatial / Elevation / GPS	Service Platform and Infrastructure	Hardware / Infrastructure	Servers / Computers	Sun Microsystems Workstations
Simulation	Service Platform and Infrastructure	Software Engineering	Integrated Development Environment	Visual Studio, C++, Java and XML.
Mapping / Geospatial / Elevation / GPS	Service Platform and Infrastructure	Hardware / Infrastructure	Network Devices / Standards	Sensis - Multi-Sensor Data Processor
Mapping / Geospatial / Elevation / GPS	Component Framework	User Presentation / Interface	Dynamic Server-Side Display	Sun Solaris OS
Modeling	Component Framework	User Presentation / Interface	Content Rendering	Sun Solaris OS
Modeling	Service Platform and Infrastructure	Software Engineering	Modeling	Sun Solaris OS

I.F.6. Will the application leverage existing components and/or applications across the Government (e.g. USA.gov, Pay.gov, etc.)?

no

I.F.6.a. If "yes," please describe.  
Description: (Up to 2500 characters)

### 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.9. Will the selected alternative replace a legacy system in-part or in-whole?	
IV.A.9.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?	
IV.A.9.b. If "yes," please provide the following information:	