## **Exhibit 300 FY2010**

FAAXX224: Terminal Radar Digitizing, Replacement, and Establishment (TRDRE)

# 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 É and F for IT capital assets.

I.A. Overview (All Capital Assets)  Description: The following series of questions are to be completed for all in	vestments.
I.A.1. Date of Submission:	2008-09-08
I.A.2. Agency:	021
I.A.3. Bureau:	12
I.A.4. Name of this Capital Asset: Description: (Up to 250 characters)	FAAXX224: Terminal Radar Digitizing, Replacement, and Establishment (TRDRE)
I.A.5. Unique Project (Investment) Identifier: Description: For IT investment only, see section 53. For all other, use agency ID system.	021-12-01-20-01-1160-00
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)

Air traffic controllers use terminal surveillance radar systems to detect and track aircraft in the area surrounding airports. Airport Surveillance Radar, Model 11 (ASR-11) provides a single integrated digital primary and secondary radar system and will replace outdated primary radar systems (ASR-7/8) and secondary radar systems (Air Traffic Control Beacon Interrogators [ATCBI-4/5 or Mode-S]). The ASR-11 investment also replaces the deteriorating infrastructure supporting current radar systems with new radar facilities, including advanced grounding and lightning protection systems, digital or fiber optic telecommunications, emergency backup power supplies and enhanced physical security. Together these new capabilities and infrastructure improvements result in increased ease of maintenance, increased system availability and reliability and improved operational performance. The BY10 funding is the last year of funding for the program and is for program management, engineering and implementation of ASR-11 systems previously funded, including the final 12 demolitions/restorations of legacy sites. The ASR-11 program has completed the planning phase and is currently a Mixed Life Cycle program with most efforts in the Full Acquisition Phase, equating to the Control Phase for the current cycle, and just beginning the In-Service Phase, equating to the Evaluate Phase in the CPIC review. The program received JRC approval on 9/5/2005 to rebaseline the program to 66 systems. All tests and evaluations have been completed and the program achieved an In-Service Decision for system deployment on September 22, 2003. As of January 22, 2009, the status of the 66 baseline systems is: 66 systems purchased, 50 systems in full operational capability and commissioned into the National Airspace System (NAS), 3 in Initial Operating Capability (IOC), 6 accepted, 5 in construction, and 2 pre-construction.

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?	2007-09-05
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)	yes
I.A.12.b.1. If "yes," is an ESPC or UESC being used to help fund this investment?	no
I.A.12.b.2. If "yes," will this investment meet sustainable design principles?	yes
I.A.12.b.3. If "yes," is it designed to be 30% more energy efficient than relevant code?	no
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 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?)  Description: (Up to 500 characters)	

yes
yes
10001121 - FAA Air Traffic Services
Adequate
yes
Level 3
(1) Project manager has been validated as qualified for this investment
yes
no
ng request for the following?
0
0
65
35
n/a
no
no

# I.B. Summary of Spending (All Capital Assets)

# I.B.1 Summary of Spending 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. 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	\$21.300	\$0.000	\$0.000	\$0.000
Acquisition	\$636.000	\$19.600	\$11.400	\$8.200
Subtotal Planning and Acquisition	\$657.300	\$19.600	\$11.400	\$8.200
Operations and Maintenance	\$1.500	\$1.500	\$1.500	\$1.500
TOTAL	\$658.800	\$21.100	\$12.900	\$9.700
Government FTE Costs	\$28.175	\$15.028	\$14.574	\$14.954

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

L		PY-1 and earlier	PY 2008	CY 2009	BY 2010
ı	Number of FTE represented by	211	107	98	95
ı	cost				
r					

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)	
	The pregram added the ETE breekent of ORM ETE's To comply
I.B.3. If the summary of spending has changed from the FY2009 President's budget request, briefly explain those changes:	The program added the FTE breakout of O&M FTE's. To comply with OMB guidance, the ASR-11 program separated out the O&M
Description: (Up to 2500 characters)	FTE's which were not identified last year and will not require
	additional FTE's.

# 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. 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	Organizational Excellence	Technology	IT Contribution to Process, Customer, or Mission	Improvement- Reduced/Avoided O&M costs.
2005	Mobility	Customer Results	Customer Satisfaction	Operational Availability
2005	Reduced Congestion	Processes and Activities	Efficiency	Efficiency- Hours of - Mean Time To Repair (MTTR)
2005	Mobility	Mission and Business Results	Air Transportation	Unscheduled Outages
2006	Organizational Excellence	Technology	IT Contribution to Process, Customer, or Mission	Improvement- Reduced/Avoided O&M costs.
2006	Mobility	Mission and Business Results	Air Transportation	Unscheduled Outages
2006	Reduced Congestion	Processes and Activities	Efficiency	Efficiency- Hours of - Mean Time To Restore (MTTR) - as in the FAA official NASPAS database.
2006	Mobility	Customer Results	Customer Satisfaction	Operational Availability - as in the FAA official NASPAS database
2007	Mobility	Mission and Business Results	Air Transportation	Unscheduled Outages
2007	Organizational Excellence	Technology	IT Contribution to Process, Customer, or Mission	Improvement- Reduced/Avoided O&M costs.
2007	Reduced Congestion	Processes and Activities	Efficiency	Efficiency- Hours of - Mean Time To Repair (MTTR).
2007	Mobility	Customer Results	Customer Satisfaction	Operational Availability
2008	Mobility	Customer Results	Customer Satisfaction	Operational Availability
2008	Reduced Congestion	Technology	IT Contribution to Process, Customer, or Mission	Improvement- Increased Air Traffic (AT) Coverage

				Requirements met.
2008	Mobility	Mission and Business Results	Air Transportation	Unscheduled Outages
2008	Reduced Congestion	Processes and Activities	Efficiency	Efficiency- Hours of - Mean Time To Repair (MTTR).
2009	Mobility	Mission and Business Results	Air Transportation	Unscheduled outages
2009	Reduced Congestion	Technology	IT Contribution to Process, Customer, or Mission	Improvement- Increased AT CR
2009	Reduced Congestion	Processes and Activities	Efficiency	Efficiency- Hours of - Mean Time To Repair (MTTR).
2009	Mobility	Customer Results	Customer Satisfaction	Operational Availability
2010	Mobility	Customer Results	Customer Satisfaction	Operational Availability- as in the FAA official NASPAS database.
2010	Mobility	Mission and Business Results	Air Transportation	Unscheduled Outages
2010	Reduce Congestion	Processes and Activities	Efficiency	Efficiency- Hours of - Mean Time To Restore (MTTR) - as in the FAA official NASPAS database.
2010	Reduce Congestion	Technology	IT Contribution to Process, Customer, or Mission	Improvement- Increased Air Traffic (AT) Coverage Requirements met.
2011	Mobility	Customer Results	Customer Satisfaction	Operational Availability
2011	Mobility	Mission and Business Results	Air Transportation	Unscheduled Outages
2011	Reduce Congestion	Processes and Activities	Efficiency	Efficiency- Hours of - Mean Time To Restore (MTTR).
2012	Mobility	Customer Results	Customer Satisfaction	Operational Availability- as in the FAA official NASPAS database.
2012	Mobility	Mission and Business Results	Air Transportation	Unscheduled Outages
2012	Reduce Congestion	Processes and Activities	Efficiency	Efficiency- Hours of - Mean Time To Restore (MTTR) - as in the FAA official NASPAS database.
2013	Mobility	Customer Results	Customer Satisfaction	Operational Availability
2013	Mobility	Mission and Business Results	Air Transportation	Unscheduled Outages
2013	Reduce Congestion	Processes and Activities	Efficiency	Efficiency- Hours of - Mean Time To Restore (MTTR).
2011	Reduced Congestion	Technology	IT Contribution to Process, Customer, or Mission	Improvement- Increased AT CR
2012	Reduced Congestion	Technology	IT Contribution to Process, Customer, or Mission	Improvement- Increase AT CR
2013	Reduced Congestion	Technology	IT Contribution to Process, Customer, or Mission	Improvement- Increase AT CR

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.

yes
yes
Airport Surveillance Radars (ASR)
yes
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.

- 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 this column can, but are not required to, add up to

Agency Component Name	Agency Component Description	FEA SRM Service Type	FEA SRM Component (a)	Service Component Reused - Component Name (b)
Aircraft to Aircraft Separation Capability (ATS, ATC- Separation Assurance)	Aircraft are separated from other known aircraft in the terminal, en route, and oceanic environments. Separation assurance involves the application of separation standards to ensure aircraft remain an appropriate minimum distance or altitude from other known aircraft. Standards are defined for aircraft based on aircraft type, size, equipment, and for operating in different environments.(ATC Separation Assurance)	Knowledge Management	Knowledge Distribution and Delivery	
Airborne (ATS, TM- Synchronization)	Airborne synchronization, or spacing and sequencing of air traffic, safely maximizes National Airspace System efficiency and capacity throughout the cruise, arrival, and departure phases of flight. Traffic synchronization is provided to aircraft during cruise, through metering at fixes/waypoints and modifying traffic flow patterns to meet operational objectives and accommodate user preferences.(TM Synchronization)	Tracking and Workflow	Conflict Resolution	
Aircraft to Aircraft Separation Capability (ATS, ATC- Separation Assurance)	Aircraft are separated from other known aircraft in the terminal, en route, and oceanic environments. Separation assurance involves the application of separation standards to ensure aircraft remain an appropriate minimum distance or altitude from other known aircraft. Standards are defined for aircraft based on aircraft type, size, equipment, and for operating in different environments.(ATC Separation Assurance)	Security Management	Access Control	
Airborne (ATS, TM- Synchronization)	Airborne synchronization, or spacing and sequencing of air traffic, safely maximizes National Airspace System efficiency and capacity throughout the cruise, arrival, and departure phases of flight. Traffic synchronization is provided to aircraft during cruise, through metering at fixes/waypoints and modifying traffic flow patterns to meet operational objectives and accommodate user preferences.(TM Synchronization)	Content Management	Tagging and Aggregation	

## 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		Service Specification (b) (i.e., vendor and product name)
Conflict Resolution	Service Access and Delivery	Access Channels		Sensis Corp Surveillance Data Translator
Knowledge Distribution and Delivery	Service Platform and Infrastructure	Database / Storage	Storage	Raytheon- Data Storage
Conflict Resolution	Service Platform and Infrastructure	Hardware / Infrastructure	Servers / Computers	Sun- Sun Computers
Conflict Resolution	Service Platform and Infrastructure	Hardware / Infrastructure	Embedded Technology Devices	Intel- Microprocessor
Access Control	Service Platform and Infrastructure	Hardware / Infrastructure	Network Devices / Standards	Raytheon- Surveillance Radar
Tagging and Aggregation	Component Framework	User Presentation / Interface	Content Rendering	Sun- Sun Workstations
Knowledge Distribution and Delivery	Component Framework	Data Interchange	Data Exchange	Raytheon- CSU/DSU Router
Knowledge Distribution and Delivery	Component Framework	Data Management	Reporting and Analysis	Raytheon- Automated Data Log

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 IV.A.9. Will the selected alternative replace a legacy system inpart 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: