

Exhibit 300 FY2011

FAAXX155: Next Generation Air/Ground Communications (NEXCOM) Segment 1a

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)	FAAXX155: Next Generation Air/Ground Communications (NEXCOM) Segment 1a
I.A.5. Unique Project (Investment) Identifier: Description: For IT investment only, see section 53.9. For all other, use agency ID system.	021-12-01-15-01-1020-00
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.	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; 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>If many more planes fly during peak periods, or if Air Traffic Controllers become empowered to work more efficiently, then more Very High Frequency (VHF) radio spectrum will be needed for Air Traffic Control (ATC) communications; either for more voice, data, Next Generation Air Transportation System (NextGen) technologies or a combination of these. NEXCOM's new radio technologies support the FAA's goal of Greater Capacity by making more efficient use of existing spectrum. Furthermore, replacing very old radios and their higher failure rates with newer radios will reduce the future growth rate of O&M costs, a cost avoidance. The NEXCOM program first received approval in May, 1998, received a JRC Revalidation Decision in May, 2000, and was Rebaselined in December, 2005. NEXCOM will be implemented in two segments. Segment 1 addresses the high- and ultrahigh-sector air traffic voice channels for aircraft flying en route above 24,000 feet. Segment 1 was divided into two phases, Segments 1a and 1b. Only Segment 1a has been approved to date. Due to higher agency priorities Segment 1b has been cancelled. A business case for Segment 2, terminal and flight service radio replacement will be submitted separately. The new radios are Multimode Digital Radios (MDRs). This Exhibit is for Segment 1a which will replace all en route radios (at 1205 sites) with MDRs by 2013. The first installation was in 2004. MDRs installed in 2007 enter the "Evaluate" phase in 2009. MDRs installed in 2008 and later are in the "Control" phase. In FY11, MDRs will be installed at 138 sites completing 82% of the total (988/1205). The program has been designed for growth and flexibility. The MDRs can emulate the existing analog protocol, thus facilitating transition, or they can operate in the spectrally efficient 8.33 kHz voice mode currently used in Europe, or with additional expenditures in a later phase, they can operate in the VDL-3 mode especially designed for Air Traffic Control. The VDL mode can provide integrated data and voice. The 8.33 kHz voice-only mode can recover spectrum needed for the data communications program, a key component of the Next Generation Air Traffic Control System (NextGen). At this time, the FAA is conducting the data communications investment analysis to analyze the alternatives for the future of ATC Communications. Regardless of the alternative chosen, the MDRs remain key building blocks for NextGen because of their operational flexibility and capabilities.</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)	NEXCOM Segment 1a was rebaselined in December 2005. The alternative analysis for this investment was updated on 08/01/2008. The investment has a risk management plan and risk register, both of which were last reviewed and updated on 06-03-2009.
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?	2005-12-14
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 FFMA 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	\$3.426	\$0.000	\$0.000	\$0.000
Acquisition	\$206.074	\$33.400	\$33.700	\$20.000
Subtotal Planning and Acquisition	\$209.500	\$33.400	\$33.700	\$20.000
Operations and Maintenance	\$1.062	\$0.663	\$0.798	\$1.441
Disposition Costs (Optional)	\$0.000	\$0.000	\$0.000	\$0.000
SUBTOTAL	\$210.562	\$34.063	\$34.498	\$21.441
Government FTE Costs	\$47.232	\$10.941	\$11.997	\$12.972
TOTAL	\$257.794	\$45.004	\$46.495	\$34.413

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	411	86	90	94

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) No Changes

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
2005	Reduced Congestion	Customer Results	Accuracy of Service or Product Delivered	Percent of pilots who rate the air traffic control radio system as excellent
2005	Reduced Congestion	Processes and Activities	Productivity	Percent of controllers who rate the air traffic control radio system as excellent
2005	Reduced Congestion	Mission and Business Results	Air Transportation	Reduce delays due to reported Very High Frequency (VHF) radio outages.
2005	Reduced Congestion	Technology	Reliability	Equipment sparing requests
2006	Reduced Congestion	Customer Results	Accuracy of Service or Product Delivered	Percent of pilots who rate the air traffic control radio system as excellent
2006	Reduced Congestion	Processes and Activities	Productivity	Percent of controllers who rate the air traffic control radio system as excellent
2006	Reduced Congestion	Mission and Business Results	Air Transportation	Reduce delays due to reported Very High Frequency (VHF) radio outages
2006	Reduced Congestion	Technology	Reliability	Equipment sparing requests
2007	Reduced Congestion	Customer Results	Accuracy of Service or Product Delivered	Percent of pilots who rate the air traffic control radio system as excellent
2007	Reduced Congestion	Processes and Activities	Productivity	Percent of controllers who rate

				the air traffic control radio system as excellent
2007	Reduced Congestion	Mission and Business Results	Air Transportation	Reduce delays due to reported Very High Frequency (VHF) radio outages.
2007	Reduced Congestion	Technology	Reliability	Equipment sparing requests
2007	Reduced Congestion	Processes and Activities	Efficiency	Average training time for radio maintenance repair
2008	Reduced Congestion	Customer Results	Accuracy of Service or Product Delivered	Percent of pilots who rate the air traffic control radio system as excellent
2008	Reduced Congestion	Processes and Activities	Productivity	Percent of controllers who rate the air traffic control radio system as excellent
2008	Reduced Congestion	Processes and Activities	Productivity	Increase productivity be reducing time spent on radio maintenance
2008	Reduced Congestion	Mission and Business Results	Air Transportation	Reduce delays due to reported Very High Frequency (VHF) radio outages.
2008	Reduced Congestion	Technology	Reliability	Equipment sparing requests
2008	Reduced Congestion	Processes and Activities	Efficiency	Average training time for radio maintenance repair
2008	Reduced Congestion	Processes and Activities	Efficiency	Reduce time (in hours) spent by technicians in training
2009	Reduced Congestion	Customer Results	Accuracy of Service or Product Delivered	Percent of pilots who rate the air traffic control radio system as excellent.
2009	Reduced Congestion	Processes and Activities	Productivity	Percent of controllers who rate the air traffic control radio system as excellent.
2009	Reduced Congestion	Processes and Activities	Productivity	Increase productivity be reducing time spent on radio maintenance
2009	Reduced Congestion	Mission and Business Results	Air Transportation	Reduce delays due to reported Very High Frequency (VHF) radio outages.
2009	Reduced Congestion	Technology	Reliability	Equipment sparing requests
2009	Reduced Congestion	Processes and Activities	Efficiency	Average training time for radio maintenance repair.
2009	Reduced Congestion	Processes and Activities	Efficiency	Reduce time (in hours) spent by technicians in training
2010	Reduced Congestion	Customer Results	Accuracy of Service or Product Delivered	Percent of pilots who rate the air traffic control radio system as excellent.
2010	Reduced Congestion	Processes and Activities	Productivity	Percent of controllers who rate the air traffic control radio system as excellent.
2010	Reduced Congestion	Processes and Activities	Productivity	Increase productivity be reducing time spent on radio maintenance
2010	Reduced Congestion	Mission and Business Results	Air Transportation	Reduce delays due to reported Very High Frequency (VHF) radio outages
2010	Reduced Congestion	Technology	Reliability	Equipment sparing requests
2010	Reduced Congestion	Processes and Activities	Efficiency	Average training time for radio maintenance repair.
2010	Reduced Congestion	Processes and Activities	Efficiency	Reduce time (in hours) spent by technicians in training
2011	Reduced Congestion	Customer Results	Accuracy of Service or Product Delivered	Percent of pilots who rate the air traffic control radio system as excellent.
2011	Reduced Congestion	Processes and Activities	Productivity	Percent of controllers who rate the air traffic control radio system as excellent.
2011	Reduced Congestion	Processes and Activities	Productivity	Increase productivity be reducing time spent on radio maintenance
2011	Reduced Congestion	Mission and Business Results	Air Transportation	Reduce delays due to reported Very High Frequency (VHF) radio outages
2011	Reduced Congestion	Technology	Reliability	Equipment sparing requests
2011	Reduced Congestion	Processes and Activities	Efficiency	Average training time for radio maintenance repair.
2011	Reduced Congestion	Processes and Activities	Efficiency	Reduce time (in hours) spent by technicians in training
2012	Reduced Congestion	Customer Results	Accuracy of Service or Product Delivered	Percent of pilots who rate the air traffic control radio system

				as excellent.
2012	Reduced Congestion	Processes and Activities	Productivity	Percent of controllers who rate the air traffic control radio system as excellent.
2012	Reduced Congestion	Processes and Activities	Productivity	Increase productivity by reducing time spent on radio maintenance
2012	Reduced Congestion	Mission and Business Results	Air Transportation	Reduce delays due to reported Very High Frequency (VHF) radio outages
2012	Reduced Congestion	Technology	Reliability	Equipment sparing requests
2012	Reduced Congestion	Processes and Activities	Efficiency	Average training time for radio maintenance repair.
2012	Reduced Congestion	Processes and Activities	Efficiency	Reduce time (in hours) spent by technicians in training
2013	Reduced Congestion	Customer Results	Accuracy of Service or Product Delivered	Percent of pilots who rate the air traffic control radio system as excellent.
2013	Reduced Congestion	Processes and Activities	Productivity	Percent of controllers who rate the air traffic control radio system as excellent.
2013	Reduced Congestion	Processes and Activities	Productivity	Increase productivity by reducing time spent on radio maintenance
2013	Reduced Congestion	Mission and Business Results	Air Transportation	Reduce delays due to reported Very High Frequency (VHF) radio outages
2013	Reduced Congestion	Technology	Reliability	Equipment sparing requests
2013	Reduced Congestion	Processes and Activities	Efficiency	Average training time for radio maintenance repair.
2013	Reduced Congestion	Processes and Activities	Efficiency	Reduce time (in hours) spent by technicians in training
2014	Reduced Congestion	Customer Results	Accuracy of Service or Product Delivered	Percent of pilots who rate the air traffic control radio system as excellent.
2014	Reduced Congestion	Processes and Activities	Productivity	Increase productivity by reducing time spent on radio maintenance
2014	Reduced Congestion	Mission and Business Results	Air Transportation	Reduce delays due to reported Very High Frequency (VHF) radio outages
2014	Reduced Congestion	Technology	Reliability	Equipment sparing requests
2014	Reduced Congestion	Processes and Activities	Efficiency	Reduce time (in hours) spent by technicians in training

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.