

FAAXX294: ATC Beacon Interrogator Replacement (ATCBI-6)

Exhibit 300: Part I: Summary Information and Justification (All Capital Assets)

I.A. Overview

1. Date of Submission:	9/11/2006
2. Agency:	Department of Transportation
3. Bureau:	Federal Aviation Administration
4. Name of this Capital Asset:	FAAXX294: ATC Beacon Interrogator Replacement (ATCBI-6)
5. Unique Project (Investment) Identifier: (For IT investment only, see section 53. For all other, use agency ID system.)	021-12-01-20-01-1020-00
6. What kind of investment will this be in FY2008? (Please NOTE: Investments moving to O&M ONLY in FY2008, with Planning/Acquisition activities prior to FY2008 should not select O&M. These investments should indicate their current status.)	Mixed Life Cycle
7. What was the first budget year this investment was submitted to OMB?	FY2001 or earlier

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:

Air Traffic Control Beacon Interrogator Replacement (ATCBI-6) is secondary surveillance radar, or "beacon" radar, that provides aircraft location data to air traffic controllers for separation assurance, traffic management, navigation and flight information in the en route and oceanic airspace. The Department of Defense (DoD) and the Department of Homeland Security (DHS) also use ATCBI-6 data. DoD and DHS receive data with secure "Identify Friend or Foe (IFF)" information, enhancing their ability to meet their air sovereignty and homeland defense missions. This is a DoD requirement. The ATCBI-6 replacement of en route radars addresses the FAA performance gap of ATCBI-4/5 radars sustainability, compatibility with new automation systems, and improved system performance due to technology advances. This approach, consistent with the end state architecture outlined in NAS-SS-1000, meets our near-term surveillance needs and ensures service is available through the transition to FAA use of GPS-based technology. The FAA's existing ATCBI-4/5 systems have reached the end of their 20-year life cycles. They are not sustainable due to parts obsolescence and other issues (i.e., increased failure rate, higher maintenance cost and longer repair times). Furthermore, the existing beacons are analog and incompatible with new automation systems. The original ATCBI-6 procurement was 129 ATCBI-6 systems to replace 124 operational beacons and to provide five systems for prototype evaluation, testing, training, logistics and operational engineering support. The program completed procurements of an additional eight systems for a total of 137 systems. Two of these are support systems, two are new beacon-only radar sites from Congressional earmarks and four are new beacon-only sites from agency cost share agreements and other government projects. Major Milestones completed: Contract Award -8/03/98; In-Service Decision - 6/04/02; First Commissioned Site (Tinker) - 07/18/02; Delivered 137 systems from the factory - 07/31/06; Commissioned 71 sites - 07/31/06. Future Milestones: Last system delivery to site - 5/09; Last system operational in NAS 8/09.

9. Did the Agency's Executive/Investment Committee approve this request?	Yes
a. If "yes," what was the date of this approval?	1/22/2002
10. Did the Project Manager review this	Yes

Exhibit?

11. Contact information of Project Manager?

Name

Phone Number

Email

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

No

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 to non-IT assets only)

No

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?

3. If "yes," is it designed to be 30% more energy efficient than relevant code?

13. Does this investment support one of the PMA initiatives?

No

If "yes," check all that apply:

13a. Briefly describe how this asset directly supports the identified initiative(s)?

14. Does this investment support a program assessed using the Program Assessment Rating Tool (PART)? (For more information about the PART, visit www.whitehouse.gov/omb/part.)

Yes

a. If "yes," does this investment address a weakness found during the PART review?

Yes

b. If "yes," what is the name of the PART program assessed by OMB's Program Assessment Rating Tool?

FAA Air Traffic Services

c. If "yes," what PART rating did it receive?

Adequate

15. Is this investment for information technology?

Yes

If the answer to Question: "Is this investment for information technology?" was "Yes," complete this sub-section. If the answer is "No," do not answer this sub-section.

For information technology investments only:

16. What is the level of the IT Project? (per CIO Council PM Guidance)

Level 3

17. 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
18. Is this investment identified as "high risk" on the Q4 - FY 2006 agency high risk report (per OMB's "high risk" memo)?	No
19. Is this a financial management system?	No
a. If "yes," does this investment address a FFMIA compliance area?	No
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 FY2008 funding request for the following? (This should total 100%)	
Hardware	1.000000
Software	2.000000
Services	94.000000
Other	3.000000
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?	N/A
22. Contact information of individual responsible for privacy related questions:	
Name	
Phone Number	
Title	
E-mail	
23. Are the records produced by this investment appropriately scheduled with the National Archives and Records Administration's approval?	Yes

I.B. Summary of Funding

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 2006	CY 2007	BY 2008	BY + 1 2009	BY + 2 2010	BY + 3 2011	BY + 4 and Beyond	Total
Planning									
Budgetary Resources	1	0	0	0	0	0	0	0	0
Acquisition									
Budgetary Resources	218.05	13.266	13.4	16	0	0	0	0	0
Subtotal Planning & Acquisition									
Budgetary Resources	219.05	13.266	13.4	16	0	0	0	0	0
Operations & Maintenance									
Budgetary Resources	10.849	5.814	7.176	7.327	0	0	0	0	0
TOTAL									
Budgetary Resources	229.899	19.08	20.576	23.327	0	0	0	0	0
Government FTE Costs									
Budgetary Resources	11.475	3.619	3.713	3.811	0	0	0	0	0
Number of FTE represented by Costs:	110.0	34.4	34.4	34.4	0	0	0	0	0

Note: For the cross-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 FTE's? No

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

I.C. Acquisition/Contract Strategy

2. If earned value is not required or will not be a contract requirement for any of the contracts or task orders above, explain why:

Raytheon Contract - The first article of the basic contract was subject to earned value. Follow-on production options for prime mission equipment were subject to limited earned value reporting by the contractor due to the nature of the contract line items, i.e., the prime mission equipment was competitively awarded and firm fixed prices for the associated line items were incorporated into the contract with firm delivery requirements. Large scope developmental task orders were subject to earned value. Other task orders for services were contracted for on a level of effort basis and therefore not subject to earned value reporting. Notwithstanding, all items/task orders of the contract are subject to program management review reporting, inclusive of cost and schedule updates. In August 2005, the FAA conducted an EVM assessment based on the FAA EVM compliance criteria aligned with the ANSI EIA-748 Standard for EVM and the NDIA ANSI EIA 748 Intent Guide, January 2005 edition. As a result, ATCBI-6 will implement a Mid-Program EVM approach that does not require added EVM information from the contractors beyond what is currently available. The intent of this approach is to provide useful EVM performance data to the program and executive management in the near term without significant program cost investment. This approach was recommended for programs with remaining effort that is mostly deployment with a consistent site deployment schedule template. ATCBI-6 EVM reporting will be structured around remaining work and will commence with the approval of FY06 funding. ATCBI-6 will

implement EVM using a schedule management tool, an EVM tool, and an EVM analysis application. The ATCBI-6 EVM implementation will include costs for contractors and FAA FTEs. ATCBI-6 will be reviewed for ANSI/EIA compliance after implementation using the FAA approved R/Y/G criteria. Due to rebaselining efforts, the program office will update the POA&M to reflect implementation of ANSI Compliant of EVM after JRC baseline approval. This update will be available by the final submission of the Exhibit 300 to OMB.

3. Do the contracts ensure Section 508 compliance?	N/A
a. Explain why:	In accordance with FAA's Section 508 Procurement Standard Operating Procedures, the ATCBI-6 program has determined that none of the Section 508 standards apply to the program. Section 508 didn't become enforceable until June 21, 2001, the FAA is not required to retrofit its electronic information technology, and as the ATCBI-6 system procurement occurred in 1998, it is therefore exempt from Section 508 requirements.
4. Is there an acquisition plan which has been approved in accordance with agency requirements?	Yes
a. If "yes," what is the date?	4/29/1998
b. If "no," will an acquisition plan be developed?	
1. If "no," briefly explain why:	

I.D. Performance Information

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 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 Table 1 below for reporting performance goals and measures for all non-IT investments and for existing IT investments that were initiated prior to FY 2005. The table can be extended to include measures for years beyond FY 2006.

Performance Information Table 1:					
Fiscal Year	Strategic Goal(s) Supported	Performance Measure	Actual/baseline (from Previous Year)	Planned Performance Metric (Target)	Performance Metric Results (Actual)
2003	DOT Goal: Mobility / Increased reliability throughout the system: By 2008, increase the percent of flights arriving on time to	Reduce unscheduled equipment-related outage delays by 25% at ATCBI-6 sites.	ATCBI-4/5 unscheduled equipment outage delays = 204 across 230 sites	Unscheduled ATCBI-6 equipment outages	No unscheduled outages reported at initial ATCBI-6 sites in 2003. Existing baseline is 204 unscheduled outages across 230 sites, which is

	83.64 percent					approximately 88.7%; measured performance is 0 unscheduled outages. Goal reported twice plan to delete next BY.
2004	DOT Goal: Mobility / Increased reliability throughout the system: By 2008, increase the percent of flights arriving on time to 83.64 percent	Reduce unscheduled equipment-related outages by 25% at ATCBI-6 sites.	ATCBI-4/5 unscheduled equipment-related outages in FY03 = 221 across 224 sites	Reduction in unscheduled ATCBI-6 equipment outages		1 unscheduled outage for ATCBI-6 systems through 9/04. (17 sites) Baseline is 221 unscheduled outages across 224 sites (98.7%). Performance for ATCBI-6 is 1 unscheduled outage across 17 sites (5.9%). Goal reported twice, plan to delete next BY.

All new IT investments initiated for FY 2005 and beyond must use Table 2 and are required to use the Federal Enterprise Architecture (FEA) Performance Reference Model (PRM). Please use Table 2 and the PRM to identify the performance information pertaining to this major IT investment. 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 at least four different Measurement Areas (for each fiscal year). The PRM is available at www.egov.gov.

Performance Information Table 2:

Fiscal Year	Measurement Area	Measurement Category	Measurement Grouping	Measurement Indicator	Baseline	Planned Improvement to the Baseline	Actual Results
2005	Customer Results	Customer Benefit	Customer Impact or Burden	Reduce aircraft delays due to unscheduled equipment outage	4.7 delayed aircraft per year due to unscheduled en-route ATCBI-4/5 outages	3.8 delayed aircraft per year due to unscheduled ATCBI-4/5/6 outages	Aircraft delays caused by unscheduled outages: ATCBI-6 = 0, ATCBI-5 = 5
2005	Customer Results	Customer Benefit	Customer Impact or Burden	Reduce cost of unscheduled systems outages total restore time	\$13.2K delay cost associated with unscheduled outages	Removed in 2008 Exhibit as a performance measure because it is redundant since it is the "reduce aircraft delays due to unscheduled equipment outage" performance measure converted to	Removed in 2008 Exhibit as a performance measure because it is redundant since it is the "reduce aircraft delays due to unscheduled equipment outage" performance measure converted to

						dollars.	dollars.
2005	Mission and Business Results	Transportation	Air Transportation	Increase en route beacon Mean Time Between Outage (MTBO)	En route ATCBI-4/5 average per site MTBO (unscheduled) = 6,479 hrs (from FY03 en route ATCBI-4/5 baseline data)	En route ATCBI-4/5/6 average per site MTBO (unscheduled) = 7,775 hrs	Average per site MTBO (unscheduled) = 8,655 hrs for en route ATCBI-4/5/6.
2005	Mission and Business Results	Transportation	Air Transportation	Reduced/avoided operation and maintenance costs available to be applied toward Flight Plan	ATCBI-4/5 total yearly exchange & repair (E&R) costs	Removed in 2008 Exhibit as a performance measure because it is redundant since it is included in the performance measure to reduce en route beacon repair costs	Removed in 2008 Exhibit as a performance measure because it is redundant since it is included in the performance measure to reduce en route beacon repair costs
2005	Processes and Activities	Productivity and Efficiency	Efficiency	Reduce en route beacon Mean Time to Restore (MTTR)	Mean time to restore = 6.62 hours	6.54 hours mean time to restore (15 minute prorated improvement)	ATCBI-6 MTTR in FY05 = 5.16 hours
2005	Processes and Activities	Productivity and Efficiency	Efficiency	Reduce hours of unscheduled equipment outage	5.74 hours per system per year of unscheduled outages for legacy 4/5 systems	Removed in 2008 Exhibit as a performance measure because it is redundant since it is included in the performance measure to reduce en route beacon Mean Time to Restore (MTTR)	Removed in 2008 Exhibit as a performance measure because it is redundant since it is included in the performance measure to reduce en route beacon Mean Time to Restore (MTTR)
2005	Technology	Financial (Technology)	Operations and Maintenance Costs	Reduce en route beacon repair costs	En route ATCBI-4/5 average per site repair costs (total requisition costs) = \$7,345 (from FY03 ATCBI-4/5 baseline data)	En route ATCBI-4/5/6 average per site repair costs (total requisition costs) = \$5,510	En route ATCBI-4/5 average per site repair costs (total requisition costs) in FY05 = \$6,285. ATCBI-6 average per site repair costs (total requisition costs) in FY05 = \$2,244.

2005	Technology	Financial (Technology)	Operations and Maintenance Costs	Reduced CD-2 repair costs	CD-2 average per site repair costs (total requisition costs) = \$5,678 (from FY03 CD-2 baseline data)	CD-2 average per site repair costs (total requisition costs) = \$5,110	CD-2 average per site repair costs (total requisition costs) in FY05 = \$4,360
2006	Customer Results	Customer Benefit	Customer Impact or Burden	Reduce aircraft delays due to unscheduled equipment outage	4.7 delayed aircraft per year due to unscheduled en-route ATCBI-4/5 outages	3.5 delayed aircraft per year due to unscheduled outages	Data for actual FY06 results will be available in 2nd qtr of FY07 and reported in the FY09 Exhibit
2006	Mission and Business Results	Transportation	Air Transportation	Increase en route beacon Mean Time Between Outage (MTBO)	En route ATCBI-4/5 average per site MTBO (unscheduled) = 6,479 hrs (from FY03 en route ATCBI-4/5 baseline data)	En route ATCBI-4/5/6 average per site MTBO (unscheduled) = 8,095 hrs	Data for actual FY06 results will be available in 2nd qtr of FY07 and reported in the FY09 Exhibit
2006	Processes and Activities	Productivity and Efficiency	Efficiency	Reduce en route beacon Mean Time to Restore (MTTR)	Mean time to restore = 6.62 hours	6.49 hours mean time to restore (15 minute prorated improvement)	Data for actual FY06 results will be available in 2nd qtr of FY07 and reported in the FY09 Exhibit
2006	Technology	Financial (Technology)	Operations and Maintenance Costs	Reduce en route beacon repair costs	En route ATCBI-4/5 average per site repair costs (total requisition costs) = \$7,345 (from FY03 ATCBI-4/5 baseline data)	En route ATCBI-4/5/6 average per site repair costs (total requisition costs) = \$5,140	Data for actual FY06 results will be available in 2nd qtr of FY07 and reported in the FY09 Exhibit
2006	Technology	Financial (Technology)	Operations and Maintenance Costs	Reduced CD-2 repair costs	CD-2 average per site repair costs (total requisition costs) = \$5,678 (from FY03 CD-2 baseline data)	CD-2 average per site repair costs (total requisition costs) = \$4,825	Data for actual FY06 results will be available in 2nd qtr of FY07 and reported in the FY09 Exhibit
2007	Customer Results	Customer Benefit	Customer Impact or Burden	Reduce aircraft delays due to unscheduled equipment outage	4.7 delayed aircraft per year due to unscheduled outages	3.3 delayed aircraft per year due to unscheduled outages	Data for actual FY07 results will be available in 2nd qtr of FY08 and reported in the FY10

							Exhibit
2007	Mission and Business Results	Transportation	Air Transportation	Increase en route beacon Mean Time Between Outage (MTBO)	En route ATCBI-4/5 average per site MTBO (unscheduled) = 6,479 hrs (from FY03 en route ATCBI-4/5 baseline data)	En route ATCBI-4/5/6 average per site MTBO (unscheduled) = 8,420 hrs	Data for actual FY07 results will be available in 2nd qtr of FY08 and reported in the FY10 Exhibit
2007	Processes and Activities	Productivity and Efficiency	Efficiency	Reduce en route beacon Mean Time to Restore (MTTR)	Mean time to restore = 6.62 hours	6.44 hours mean time to restore (15 minute prorated improvement) (101 systems fielded)	Data for actual FY07 results will be available in 2nd qtr of FY08 and reported in the FY10 Exhibit
2007	Technology	Financial (Technology)	Operations and Maintenance Costs	Reduce en route beacon repair costs	En route ATCBI-4/5 average per site repair costs (total requisition costs) = \$7,345 (from FY03 ATCBI-4/5 baseline data)	En route ATCBI-4/5/6 average per site repair costs (total requisition costs) = \$4,775	Data for actual FY07 results will be available in 2nd qtr of FY08 and reported in the FY10 Exhibit
2007	Technology	Financial (Technology)	Operations and Maintenance Costs	Reduced CD-2 repair costs	CD-2 average per site repair costs (total requisition costs) = \$5,678 (from FY03 CD-2 baseline data)	Maintain CD-2 average per site repair costs achieved in 2006	Data for actual FY07 results will be available in 2nd qtr of FY08 and reported in the FY10 Exhibit
2008	Customer Results	Customer Benefit	Customer Impact or Burden	Reduce aircraft delays due to unscheduled equipment outage	4.7 delayed aircraft per year due to unscheduled outages	3.1 delayed aircraft per year due to unscheduled ATCBI-4/5/6 outages	Data for actual FY08 results will be available in 2nd qtr of FY09 and reported in the FY11 Exhibit
2008	Mission and Business Results	Transportation	Air Transportation	Increase en route beacon Mean Time Between Outage (MTBO)	En route ATCBI-4/5 average per site MTBO (unscheduled) = 6,479 hrs (from FY03 en route ATCBI-4/5 baseline data)	En route ATCBI-4/5/6 average per site MTBO (unscheduled) = 8,620 hrs	Data for actual FY08 results will be available in 2nd qtr of FY09 and reported in the FY11 Exhibit
2008	Processes and Activities	Productivity and Efficiency	Efficiency	Reduce en route beacon Mean Time to Restore (MTTR)	Mean time to restore = 6.62 hrs	6.44 hours mean time to restore (15 minute prorated)	Data for actual FY08 results will be available in 2nd qtr of

						improvement)	FY09 and reported in the FY11 Exhibit
2008	Technology	Financial (Technology)	Operations and Maintenance Costs	Reduce en route beacon repair costs	En route ATCBI-4/5 average per site repair costs (total requisition costs) = \$7,345 (from FY03 ATCBI-4/5 baseline data)	En route ATCBI-4/5/6 average per site repair costs (total requisition costs) = \$4,410	Data for actual FY08 results will be available in 2nd qtr of FY09 and reported in the FY11 Exhibit
2008	Technology	Financial (Technology)	Operations and Maintenance Costs	Reduced CD-2 repair costs	CD-2 average per site repair costs (total requisition costs) = \$5,678 (from FY03 CD-2 baseline data)	Maintain CD-2 average per site repair costs achieved in 2006	Data for actual FY08 results will be available in 2nd qtr of FY09 and reported in the FY11 Exhibit
2009	Customer Results	Customer Benefit	Customer Impact or Burden	Reduce aircraft delays due to unscheduled equipment outage	4.7 delayed aircraft per year due to unscheduled outages	2.8 delayed aircraft per year due to unscheduled ATCBI-4/5/6 outages	Data for actual FY09 results will be available in 2nd qtr of FY10 and reported in the FY12 Exhibit
2009	Mission and Business Results	Transportation	Air Transportation	Increase en route beacon Mean Time Between Outage (MTBO)	En route ATCBI-4/5 average per site MTBO (unscheduled) = 6,479 hrs (from FY03 en route ATCBI-4/5 baseline data)	En route ATCBI-4/5/6 average per site MTBO (unscheduled) = 8,745 hrs	Data for actual FY09 results will be available in 2nd qtr of FY10 and reported in the FY12 Exhibit
2009	Processes and Activities	Productivity and Efficiency	Efficiency	Reduce en route beacon Mean Time to Restore (MTTR)	Mean time to restore = 6.62 hrs	6.44 hours mean time to restore (15 minute prorated improvement)	Data for actual FY09 results will be available in 2nd qtr of FY10 and reported in the FY12 Exhibit
2009	Technology	Financial (Technology)	Operations and Maintenance Costs	Reduce en route beacon repair costs	En route ATCBI-4/5 average per site repair costs (total requisition costs) = \$7,345 (from FY03 ATCBI-4/5 baseline data)	En route ATCBI-4/5/6 average per site repair costs (total requisition costs) = \$4,040	Data for actual FY09 results will be available in 2nd qtr of FY10 and reported in the FY12 Exhibit

2009	Technology	Financial (Technology)	Operations and Maintenance Costs	Reduce CD-2 repair costs	CD-2 average per site repair costs (total requisition costs) = \$5,678 (from FY03 CD-2 baseline data)	Maintain CD-2 average per site repair costs achieved in 2006	Data for actual FY09 results will be available in 2nd qtr of FY10 and reported in the FY12 Exhibit
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I.E. Security and Privacy

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).

All systems supporting and/or part of this investment should be included in the tables below, inclusive of both agency owned systems and contractor systems. For IT investments under development, security and privacy planning must proceed in parallel with the development of the system/s to ensure IT security and privacy requirements and costs are identified and incorporated into the overall lifecycle of the system/s.

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 and integrated into the overall costs of the investment: Yes

a. If "yes," provide the "Percentage IT Security" for the budget year: 2.500000

2. Is identifying and assessing security and privacy risks a part of the overall risk management effort for each system supporting or part of this investment. Yes

5. Have any weaknesses, not yet remediated, related to any of the systems part of or supporting this investment been identified by the agency or IG? Yes

a. If "yes," have those weaknesses been incorporated agency's plan of action and milestone process? Yes

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

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

The ATCBI-6 BY 08 budget includes \$395K to complete the annual 800-26 ISS Report and start FY 09 SCAP re-certification. As a result of the FY 06 SCAP re-certification, the ATCBI-6 program estimates \$3.2M to mitigate access controls, audit trails, and intrusion detection system weaknesses. The \$3.2M is not in program budget. However, a request was submitted to AIO this increase in funding.

8. Planning & Operational Systems - Privacy Table:

Name of System	Is this a new system?	Is there a Privacy Impact Assessment (PIA) that covers this	Is the PIA available to the public?	Is a System of Records Notice (SORN)	Was a new or amended SORN published in FY
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		system?		required for this system?	O6?
Air Traffic Control Beacon Interrogator (ATCBI-6)	No	No, because the system does not contain, process, or transmit personal identifying information.	No, because a PIA is not yet required to be completed at this time.	No	No, because the system is not a Privacy Act system of records.

I.F. Enterprise Architecture (EA)

In order to successfully address this area of the business case and capital asset plan you must ensure the investment is included in the agency's EA and Capital Planning and Investment Control (CPIC) process, and is mapped to and supports the FEA. You must also ensure the business case demonstrates 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 enterprise architecture? Yes

a. If "no," please explain why?

2. Is this investment included in the agency's EA Transition Strategy? No

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

b. If "no," please explain why?

To effectively balance the development and management of the DOT Transition Strategy, the first version was scoped to include those investments with development activities (non O&M). Additionally, as the NAS Architecture was publicly available, it was also not fully integrated with the materials forwarded to OMB in February 2006. However, the NAS is considered part of the DOT Transition Strategy and will be more fully integrated within the next revision. Future revisions are set to expand upon that scope and include both steady state (O&M) investments and expanded linkages to the NAS Architecture. NAS websites document the plan for the FAA's target architecture where the investment can be found and a sequencing plan showing the dependencies. See the following link and search for "ATCBI-6". http://www.nas-architecture.faa.gov/nas5/downloads/full_oi_long_report.pdf

3. Service 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.whitehouse.gov/omb/egov/>.

Agency Component Name	Agency Component Description	Service Domain	FEA SRM Service Type	FEA SRM Component	FEA Service Component Reused Name	FEA Service Component Reused UPI	Internal or External Reuse?	BY Funding Percentage
Airborne	Airborne synchronization, or spacing and sequencing of air traffic, safely	Digital Asset Services	Content Management	Tagging and Aggregation			No Reuse	5

	<p>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. (NAS Traffic Management Synchronization)</p>							
Aircraft to Aircraft Separation Capability	<p>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. (NAS ATC-Separation Assurance)</p>	Digital Asset Services	Knowledge Management	Knowledge Distribution and Delivery			No Reuse	45
Airborne	<p>Airborne synchronization, or spacing and sequencing of air traffic, safely maximizes National Airspace</p>	Process Automation Services	Tracking and Workflow	Process Tracking			No Reuse	45

	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. (NAS Traffic Management Synchronization).							
Aircraft to Aircraft Separation Capability (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.	Support Services	Security Management	Access Control			No Reuse	5

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 funding level transferred to another agency to pay for the service.

4. Technical Reference Model (TRM) Table:

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.

FEA SRM Component	FEA TRM Service Area	FEA TRM Service Category	FEA TRM Service Standard	Service Specification (i.e. vendor or product name)
Process Tracking	Component Framework	Data Interchange	Data Exchange	Raytheon - Communications Cabinet
Tagging and Aggregation	Component Framework	Presentation / Interface	Content Rendering	Gateway Laptop - ACB-530 FAA RTADS Software
Knowledge Distribution and Delivery	Service Access and Delivery	Access Channels	Other Electronic Channels	ATO-W(2nd Level Engineering) - Remote Monitor & Control (RMC)
Knowledge Distribution and Delivery	Service Platform and Infrastructure	Database / Storage	Storage	Raytheon - Data Storage
Knowledge Distribution and Delivery	Service Platform and Infrastructure	Hardware / Infrastructure	Embedded Technology Devices	Raytheon - plot extractor Card
Access Control	Service Platform and Infrastructure	Hardware / Infrastructure	Network Devices / Standards	Sensis - Nunio & System Interfacr Unit (SIU)
Knowledge Distribution and Delivery	Service Platform and Infrastructure	Hardware / Infrastructure	Peripherals	Freestate - Monopulse Beacon Test Set (MBTS)
Knowledge Distribution and Delivery	Service Platform and Infrastructure	Hardware / Infrastructure	Peripherals	Panasonic - 3.5 Floppy disk
Knowledge Distribution and Delivery	Service Platform and Infrastructure	Hardware / Infrastructure	Servers / Computers	Raytheon - Local Maintenance Terminal (LMT)

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

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.

5. Will the application leverage existing components and/or applications across the Government (i.e., FirstGov, Pay.Gov, etc)? No

a. If "yes," please describe.

6. Does this investment provide the public with access to a government No

automated information system?

a. If "yes," does customer access require specific software (e.g., a specific web browser version)?

1. If "yes," provide the specific product name(s) and version number(s) of the required software and the date when the public will be able to access this investment by any software (i.e. to ensure equitable and timely access of government information and services).

Exhibit 300: Part II: Planning, Acquisition and Performance Information

II.A. Alternatives Analysis

Part II should be completed only for investments identified as "Planning" or "Full Acquisition," or "Mixed Life-Cycle" investments in response to Question 6 in Part I, Section A above.

In selecting the best capital asset, you should identify and consider at least three viable alternatives, in addition to the current baseline, i.e., the status quo. Use OMB Circular A- 94 for all investments, and the Clinger Cohen Act of 1996 for IT investments, to determine the criteria you should use in your Benefit/Cost Analysis.

1. Did you conduct an alternatives analysis for this project?	Yes
a. If "yes," provide the date the analysis was completed?	7/30/2004
b. If "no," what is the anticipated date this analysis will be completed?	
c. If no analysis is planned, please briefly explain why:	

II.B. Risk Management

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?	5/31/2005
b. Has the Risk Management Plan been significantly changed since last year's submission to OMB?	No

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

The team has made no significant changes to the risk process to identify and mitigate risks as described in the Risk Management Plan. The team updates the plan for administrative items, such as changes in organizational codes, titles, and personnel as a result of the change from ATB to ATO. The ATCBI-6 team meets on a monthly basis to identify critical areas, analyze, mitigate & track risks affecting the cost, schedule & technical aspects of the procurement in accordance with the ATO-T, Program Operations Risk

Management Plan dated 05/31/05. The team uses the Sector's automated tracking system to insert and update data, schedules, mitigation & estimates pertaining to identified risks. The ATCBI-6's tracking system contains information on OMB's current risk guidance that our team considers each time we address individual risks to facilitate focus on specific areas of risk. The team assigns to each risk a Point of Contact (POC) to lead the mitigation process and discussion for consideration. The team agrees on acceptance & level of each risk before it is approved, reduced, increased & or retired. The team conducts meetings by telecom to encourage full participation across the service areas. The program conducts monthly Program Management Reviews with the contractor & monthly Internal Program Reviews with FAA management team. Risks discussions & mitigations are an integral part of both reviews. The team has a fully functional risk management program that is user friendly, active & effective in meeting the ATCBI-6 cost, schedule and technical goals before they become serious, expensive problems to the program. The identification of any and all risks are openly encouraged & considered from all team members.

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?

3. Briefly describe how investment risks are reflected in the life cycle cost estimate and investment schedule:

The ATCBI-6 program's approved JRC investment baseline, is risk-adjusted. The program estimates the total risk-adjusted F&E cost at \$282M (not including FTEs) and O&M at \$230M (including FTEs). The ATCBI-6 program's F&E appropriation ends in FY09. The ATCBI-6 program applies the principles of EVM to the entire investment. Upon agreement of mitigation plans, the team adjusts the schedules and cost estimates appropriately. The ATCBI-6 team meets on a monthly basis to identify critical areas, analyze, mitigate and track risks affecting the cost, schedule and technical aspects of the procurement in accordance with the ATO-T, Program Operations Risk Management Plan dated 05/31/05. The team identifies and incorporates in to the program baseline, risk that requires funding for specific mitigation strategies. The current OMB segments are based on the program planning numbers, which included management reserve "risk dollars". The ATCBI-6 Program is preparing to rebaseline the program using the established JRC process. The program will include cost and schedule reserve. As part of this process, a cost estimate using the latest official FAA Work Breakdown Structure (WBS) will be conducted to identify the estimated-to-complete F&E and O&M costs. The team will calculate a point estimate for the remaining costs based on historical data, engineering assessments, level of effort, and other standard FAA estimating methodologies. This estimate will be conducted using the ACE-IT cost estimating model. The team will identify risk ranges for all cost drivers based on prior experience and subject matter expert opinions. These risk ranges will be used to generate a "risk-adjusted" high-confidence cost estimate using Monte Carlo analysis within the Crystal Ball application. The delta between the high-confidence and point estimates will be the Program's cost reserve. This reserve will be allocated back to the individual WBS elements and integrated within the Program Plan. The team will map all WBS elements into the applicable milestones to perform EVM analysis. In addition, reserve will be included in the schedule to mitigate schedule risks.

II.C. Cost and Schedule Performance

1. Does the earned value management system meet the criteria in ANSI/EIA Standard-748? No

2. Answer the following questions about current cumulative cost and schedule performance. The numbers reported below should reflect current actual information. (Per OMB requirements Cost/Schedule Performance information should include both Government and Contractor Costs):

a. What is the Planned Value (PV)?	114535371.000000
b. What is the Earned Value (EV)?	121079728.000000
c. What is the actual cost of work	120862768.000

performed (AC)?	
d. What costs are included in the reported Cost/Schedule Performance information (Government Only/Contractor Only/Both)?	Contractor and Government
e. "As of" date:	10/31/2006
3. What is the calculated Schedule Performance Index (SPI = EV/PV)?	1.050000
4. What is the schedule variance (SV = EV-PV)?	6433034.000000
5. What is the calculated Cost Performance Index (CPI = EV/AC)?	1.100000
6. What is the cost variance (CV=EV-AC)?	12016626.000000
7. Is the CV% or SV% greater than +/- 10%? (CV% = CV/EV x 100; SV% = SV/PV x 100)	Yes
a. If "yes," was it the?	SV
b. If "yes," explain the variance:	<p>The EVM data above uses the CIP funding profile, not the approved 2002 JRC baseline, and therefore reflects a positive cost and schedule variance. When measured against the approved JRC baseline, the projected schedule variance is -43 months (47.78%) and the cost variance is projected to be less than 10%. The Program Office submitted a Baseline Management Notification (BMN) for the schedule variance from the JRC approved schedule baseline. The JRC approved the original ATCBI-6 baseline in 8/97. This baseline had the last site commissioning in 12/04, duration of 77 months from CA in 8/98. The program experienced delays in contractor developmental testing, production and system deliveries, due to Congressional and internal FAA funding reductions of (\$22.6M in FY99 and \$31.4M in FY00). As a result, the JRC approved to extend the last site ORD to 1/06, adding 13 months to the program for a 90 month duration. Since this JRC approval, the following have occurred to slip the last ORD further: 1) FAA funding cut in FY03 of \$20M. The original plan called for Raytheon to install 4 systems per month, but based on this budget cut and longer-than-expected Remote Monitoring Capabilities (RMC) development, the program office scaled back to 2 system installs per month. This resulted in a 28 month slip in the schedule from the latest JRC approved baseline, causing the last site ORD to slip to 5/08; 2) In FY04, the Program office expected funding for the three Beacon Only Site (BOS) new establishments (Georgetown, BH; Freeport, BH; and Yakutat, AK) on the ATCBI-6 waterfall schedule but funding was not appropriated until FY06; 3) In November 2004, the FAA signed a cost sharing agreement with Eagle County, CO and Gallatin Field, MT to establish two "beacon only" facilities; 4) In the FY06 appropriation, Congress added two additional "beacon only" sites (Redmond, OR and Jackson Hole, WY); and 5) In FY05, funding was received from the HAATS program to implement ATCBI-6 at Lufkin to meet their congressional mandate. The equipment delivery, installation and checkout activities for these five additional sites were inserted into the ATCBI-6 waterfall schedule to meet the commitments associated with these agreements. These program changes result in a last ORD milestone of 8/09. The program is in the process of rebaselining the schedule to account for the abovementioned changes; JRC approval is expected by November 2006.</p>
c. If "yes," what corrective actions are being taken?	<p>The program office is preparing to submit a paper JRC to rebaseline the program in Nov 2006. The JRC will review the 3 alternatives identified in the alternatives analysis section above, updated to include the additional 8 systems. Program office is in process of implementing EVM in accordance with the standard. An updated POA&M reflecting implementation of EVM in accordance with ANSI/EIA Standard after JRC approval in FY07 will be provided with the BY08 Exhibit 300 submission.</p>
d. What is most current "Estimate at Completion"?	185335080.000000
8. Have any significant changes been made to the baseline during the past fiscal year?	No
8. If "yes," when was it approved by OMB?	No

