#### Exhibit 300: Capital Asset Plan and Business Case Summary

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

# Section A: Overview (All Capital Assets)

1. Date of Submission: 8/28/2007

Department of Transportation 2. Agency: Federal Aviation Administration 3. Bureau:

FAAXX603: Traffic Mgmt Advisor-Single Cntr (TMA) 4. Name of this Capital Asset:

5. Unique Project (Investment) Identifier: (For IT investment only, see section 53. For all other, use agency ID system.)

021-12-01-11-01-1190-00

6. What kind of investment will this be in FY2009? (Please NOTE: Investments moving to O&M in FY2009, with Planning/Acquisition activities prior to FY2009 should not select O&M. These investments should indicate their current

Mixed Life Cycle

7. What was the first budget year this investment was submitted to OMB?

status.)

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:

The Traffic Management Advisor (TMA) system is an information technology tool that enables the FAA to land more aircraft at designated airports in a given amount of time.

Prior to deploying TMA, air traffic controllers (ATC) used manual procedures to safely separate aircraft arriving at airports. This process often leaves gaps in the arrival streams. The TMA system processes flight data, radar data, and weather data to produce efficient airport arrival sequences that enable us to fill those gaps with additional aircraft. TMA provides data to ATC that enables them to give appropriate direction to pilots. No other known capability exists to perform this function for air traffic operations.

The FAA Joint Resources Council (JRC) approved phase 1 of the TMA program (six sites) on 27 September 1999 and phase two (four sites) on 12 June 2002 The FAA Administrator approved deployment of TMA to seven additional in June 2005 and the FAA Joint Resources Council approved the revised baseline 29 May 2007. OMB approved the rebaseline on 16 July 2007. In addition, the En Route Automation Modernization (ERAM) program funded two systems and NASA owns and operates one.

The performance gap is the need to fill those gaps in the arrival streams in order to improve service to FAA customers. TMA is already closing the performance gap. Metrics show we are seeing increases of 3% or more in landings per hour and reductions in delay time for ground and airborne traffic. Put another way, when the configuration of an airports runways normally allows 100 aircraft to land in an hour, the TMA systems is enabling an additional 3 or more aircraft to land in the same time. This does not sound like much but for the airlines it is huge.

TMA is based on commercial-off-the-shelf (COTS) hardware/software and custom application software. TMA is currently operating at 18 of 20 Air Route Traffic Control Centers (ARTCCs) and will be operating at all ARTCCs by October 2007.

Current work includes brining the last systems on line, commencing Sustainment and Technology Evolution Planning work, fielding the final planned S/W features, updating the adaptation S/W training course, and augmenting the adaptation S/W tool set.

9. Did the Agency's Executive/Investment Committee Yes approve this request?

a. If "yes," what was the date of this approval?

10. Did the Project Manager review this Exhibit? Yes

11. Contact information of Project Manager?

Name Boyer, William H

Phone Number Redacted

bill.boyer@faa.gov

a. What is the current FAC-P/PM certification level of the **TBD** 

project/program manager?

Yes

5/29/2007

12. Has the agency developed and/or promoted cost effective, energy-efficient and environmentally sustainable

techniques or practices for this project?

a. Will this investment include electronic assets

(including computers)?

Yes

b. Is this investment for new construction or major

No

retrofit of a Federal building or facility? (answer applicable to non-IT assets only)

- 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 directly support one of the PMA No initiatives?

If "yes," check all that apply:

- a. 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?)
- 14. Does this investment support a program assessed using Yes the Program Assessment Rating Tool (PART)? (For more information about the PART, visit www.whitehouse.gov/omb/part.)
- a. If "yes," does this investment address a weakness No found during a PART review?
  - b. If "yes," what is the name of the PARTed program? FAA Air Traffic Services
  - c. If "yes," what rating did the PART receive? Adequate
- 15. Is this investment for information technology?

If the answer to Question 15 is "Yes," complete questions 16-23 below. If the answer is "No," do not answer questions 16-23.

Yes

No

For information technology investments only:

- 16. What is the level of the IT Project? (per CIO Council PM Level 2 Guidance)
- 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 or any project(s) within this investment identified as "high risk" on the Q4 - FY 2007

agency high risk report (per OMB Memorandum M-05-23)

19. Is this a financial management system? No

- a. If "yes," does this investment address a FFMIA compliance area?
  - 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 FY2009 funding request for the following? (This should total 100%)

Hardware 24.000000 Software 29.000000 Services 35.000000 Other 12.000000

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?

22. Contact information of individual responsible for privacy related questions:

Name Mauney, Carla Phone Number Redacted Title Privacy Officer

E-mail carla.mauney@faa.gov

23. Are the records produced by this investment appropriately scheduled with the National Archives and

Question 24 must be answered by all Investments:

Yes

N/A

Records Administration's approval?

## Section B: Summary of Spending (All Capital Assets)

1. 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 2007	CY 2008	BY 2009	BY+1 2010	BY+2 2011	BY+3 2012	BY+4 and beyond	Total
Planning:	3.88	0	0	0	Redacted	Redacted	Redacted	Redacted	Redacted
Acquisition:	315.52	37.6	15.4	3.7	Redacted	Redacted	Redacted	Redacted	Redacted
Subtotal Planning & Acquisition:	319.40	37.6	15.4	3.7	Redacted	Redacted	Redacted	Redacted	Redacted
Operations & Maintenance:	34.146	8.913	8.511	6.439	Redacted	Redacted	Redacted	Redacted	Redacted
TOTAL:	353.546	46.513	23.911	10.139	Redacted	Redacted	Redacted	Redacted	Redacted
Government FTE Costs should not be included in the amounts provided above.									
Government FTE Costs	11.913	3.042	3.003	3.003	Redacted	Redacted	Redacted	Redacted	Redacted
Number of FTE represented by Costs:	93	21	25	23	Redacted	Redacted	Redacted	Redacted	Redacted

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.

- 2. Will this project require the agency to hire additional No FTE's?
  - a. If "yes," How many and in what year?
- 3. If the summary of spending has changed from the FY2008 President's budget request, briefly explain those changes: Redacted

## Section C: Acquisition/Contract Strategy (All Capital Assets)

1. Complete the table for all (including all non-Federal) contracts and/or task orders currently in place or planned for this investment. Total Value should include all option years for each contract. Contracts and/or task orders completed do not need to be included.

Contracts/T	Contracts/Task Orders Table: * Costs in millions										sts in millions					
Contract or Task Order Number			If so what is the date of the award? If not, what is the planned award date?	or Contract/	End date of Contract/	Total Value of Contract/ Task Order (\$M)	Interagenc y	e hased?	., ama.aca.	What, if any, alternative financing option is being used? (ESPC, UESC, EUL, N/A)	the	Does the contract include the required security & privacy clauses? (Y/N)	Name of CO	CO Contact	Certificatio	If N/A, has the agency determined the CO assigned has the competenci es and skills necessary to support this acquisition ? (Y/N)
Redacted																

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:

FAA policy incorporates ANSI-EIA Standard 748 into the Acquisition Management System. This policy requires EVM to be incorporated into all DME (F&E) contracts with a value greater than \$10M. TMA has one DME contract that exceeds \$10M with CSC and the contract has a formal EVM requirement. Another contract (APPTIS) has a value exceeding \$10M but it is O&M funded and does not require EVM based on FAA policy. No other TMA DME contract exceeds the \$10M benchmark.

The TMA EVM system considers the whole program, not just the prime contractor's efforts. All work is directly linked to the program schedule and closely tied to the work of the prime contractor. Earned value (EV) for the prime contract is taken direct from C/SSR reports. EV for support contracts is taken proportionate to the prime contractor's EV. Actual costs are a combination of actual costs from the prime contractor's C/SSR reports and invoicing data for support contractors. The program wide implementation of EVM as well as the program's proactive risk management processes mitigate any risks associated with not requiring EVM for contracts under \$10M.

The TMA program utilizes umbrella contracts awarded specifically to f provide staff augmentation for programs. Consequently, some of the contracts are not fixed price or performance based. However, the work required of those contracts is performance based. There is a direct link between the work assigned to these contractors, the achievement of the program schedule, and the compensation of the Contractors. Performance is monitored against the schedule. There is a financial penalty to the contractor if performance is substandard. Work performed by these contracts is well defined and understood. Therefore, the FAA is willing to accept this risk because the yearly costs are low and the program manager is able to adjust contractor staffing as program direction dictates.

A new field support contract was awarded in January 2007, which is quasi-performance based. The contractor submits deliverables that are tracked to ensure that work performed is consistent with the schedule. No additional F&E contracts will be awarded

The TMA program underwent an independent assessment of the EVM system that verified that the TMA implementation at the program level is consistent with ANSI-EIA 748. The program has been given a green rating for EVM and is currently working some remediation activities designed to maintain that rating.

3. Do the contracts ensure Section 508 compliance?

No

a. Explain why:

The sole end-users of this equipment are air traffic controllers who must meet strict medical qualifications under U.S. OPM Qualification Standards, GS-2152, Air Traffic Control Series. The GS-2152 standards require controllers to meet strict qualifications with respect to vision, hearing and other physical abilities that render the accessibility standards described by 36 CFR 1194 not applicable to this equipment. Therefore, the general exception, at 1194.3(e), applies to this equipment.

4. Is there an acquisition plan which has been approved in accordance with agency requirements?

Yes

a. If "yes," what is the date?

5/29/2007

b. If "no," will an acquisition plan be developed?

1. If "no," briefly explain why:

#### Section D: Performance Information (All Capital Assets)

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 or qualitative 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 FY 2009.

Performance Information Table									
Fiscal Year	Strategic Goal(s) Supported	Measurement Area	Measurement Category	Measurement Grouping	Measurement Indicator	Baseline	Target	Actual Results	
		Mission and Business Results		Air Transportation	capacity rate	Fort Lauderdale Airport (FLL) pre installation peak	airport capacity		

Performance In	formation Table	T 300: FAAXX6						
Fiscal Year	Strategic Goal(s) Supported	Measurement Area	Measurement Category	Measurement Grouping	Measurement Indicator	Baseline	Target	Actual Results
					hr.)	arrival rate per hour (instrument approach) = 24.56. Miami International Airport (MIA): Insufficient data. San Francisco (SFO): Data expected 07/2007. See Note***.	TMA baseline. FLL = 25.30	per hour). Completed MIA: 2.8% decrease in arrival traffic and new runway mitigated increase. Completed SFO: Airspace redesign forced the postponement of metering into SFO. New date is 1/2009 See Note***.
2002	Reduced Congestion	Mission and Business Results	Transportation	Air Transportation	year after FAA	weather conditions, traffic conditions, and the same airport configuration. The data samples are then analyzed against each other to determine the change in efficiency.		
2003	Reduced Congestion	Mission and Business Results	Transportation	Air Transportation	Peak airport capacity rate (arrival rate per hr.)	George Bush Houston Intercontinental Airport (IAH) per-installation peak arrival rate per hour (instrument approach) = 76	Increase peak airport capacity over pre- installation baseline levels by 3% or more. Increase peak airport capacity at IAH to 78 aircraft per hr.	Completed. Airport peak capacity for IAH (80 aircraft/hr) exceeded the planned performance metric.
2004	Reduced Congestion	Technology	Reliability and Availability	Availability	TMA operational availability of percent per year.	The TMA adjusted operational availability baseline was established in 12/2004 at 99% for the reportable NAS facilities.	Maintain 99% operational availability.	Completed. Operational availability was measured at 99.8%, which exceeded the planned performance metric.
2005	Reduced Congestion	Customer Results	Customer Benefit	Customer Impact or Burden	Cumulative Airline Direct Operating Costs (ADOC) dollars saved by greater NAS efficiency	\$130.7M ADOC savings to date due to TMA	Additional \$24.6M saved in FY05	Completed. Cumulative ADOC savings at the end of FY 2005 due to TMA were \$171.8M, which exceeded the planned improvement.
2005	Reduced Congestion	Mission and Business Results	Transportation	Air Transportation	Peak airport capacity rate (arrival rate per hr.)	Airport capacity baseline levels are determined by a one-year data collection effort prior to TMA installation. The Chicago O-Hare Airport (ORD) peak arrival rate per hour (instrument approach) is TBD. See Note***.	Increase peak airport capacity (arrival rate per hr.) at ORD by 3% or more.	Data must be collected for 1 year after completion of installation to adjust for seasonal variation; to be available 9/2008 for ORD (includes ~ four month delay to allow for learning curve effects to be resolved). See Note***.
2005	Reduced Congestion	Processes and Activities	Productivity and Efficiency	Efficiency	Percentage of TMA equipped En Route Centers where	50%	60%	Completed. 60% of TMA equipped En Route Centers use time

Performance In	nformation Table	it 300: FAAXX6						
Fiscal Year	Strategic Goal(s) Supported	Measurement Area	Measurement Category	Measurement Grouping	Measurement Indicator	Baseline	Target	Actual Results
					time based metering is used to manage at least one peak demand period a day when airport demand exceeds capacity			based metering, which meets the planned performance metric.
2005	Reduced Congestion	Technology	Reliability and Availability	Availability	Percentage of the time TMA is available to users.	99% adjusted operational availability	TMA should meet or exceed baseline requirement	Completed. Operational availability was measured at 99.6%, which exceeded the planned performance metric.
2006	Reduced Congestion	Customer Results	Customer Benefit	Customer Impact or Burden	Cumulative ADOC dollars saved by greater NAS efficiency	\$171.8M savings to date due to TMA	Additional \$31.6M saved in FY06	Completed. Cumulative ADOC savings in FY06 due to TMA were \$205.4M, which exceeded the planned improvement.
2006	Reduced Congestion	Mission and Business Results	Transportation	Air Transportation	Peak airport capacity rate (arrival rate per hr.)	Airport capacity baseline levels are determined by a one-year data collection effort prior to TMA installation. Peak arrival rate (instrument approach) for Las Vegas Airport (LAS) and Phoenix airport (PHX) are TBD. See Note***.	Increase peak airport capacity by 3% or more over pre- installation FY05 baseline levels by site	Data must be collected for 1 year after completion of installation to adjust for seasonal variation; to be available 2/2008 for LAS and 1/2008 for PHX (includes ~ four month delay to allow for learning curve effects to be resolved).
2006	Reduced Congestion	Processes and Activities	Productivity and Efficiency	Efficiency	Percentage of TMA equipped En Route Centers where time based metering is used to manage at least one peak demand period a day when airport demand exceeds capacity		70%	Completed. 67% of TMA equipped En Route Centers used time based metering (TBM) at the end of FY 2006. Chicago ARTCC did not begin TBM until May 2007.
2006	Reduced Congestion	Technology	Reliability and Availability	Availability	Percentage of the time TMA is available to users	99%	TMA should meet or exceed requirement	Completed. TMA operational availability was 99.38% as of 09/2006.
2007	Reduced Congestion	Customer Results	Customer Benefit	Customer Impact or Burden	Cumulative ADOC dollars saved by greater NAS efficiency	\$205.4M	Additional \$41.2M saved in FY07	Available 10/2007
2007	Reduced Congestion	Mission and Business Results	Transportation	Air Transportation	Peak airport capacity rate (arrival rate per hr.)	Airport capacity baseline levels are determined by a one-year data collection effort prior to TMA installation. See Note***.	Increase peak airport capacity by 3% or more over pre- installation baseline levels by site	Data to be available 6/2008 (MEM), 9/2008 (SLC), 10/2008 (MCO), 11/2008 (IAD), 12/2008 (IAD), 12/2009 (CVG), and 3/2009 (STL) (includes ~ four month delay to allow for learning curve effects to be resolved). See Note***.
2007	Reduced Congestion	Processes and Activities	Productivity and Efficiency	Efficiency	Percentage of TMA equipped En Route Centers where	67%	47% The decrease in the percentage of TMA sites using	Available 10/2007

Performance In	nformation Table	e			<u> </u>			
Fiscal Year	Strategic Goal(s) Supported	Measurement Area	Measurement Category	Measurement Grouping	Measurement Indicator	Baseline	Target	Actual Results
					time based metering is used to manage at least one peak demand period a day when airport demand exceeds capacity		TBM is due to a large number of sites (8) reaching IDU in FY2007 and most are not planned to transition to TBM until FY08	
2007	Reduced Congestion	Technology	Reliability and Availability	Availability	Percentage of the time TMA is available to users	99% adjusted operational availability	TMA should meet or exceed baseline requirement	Available 10/2007
2008	Reduced Congestion	Customer Results	Customer Benefit	Customer Impact or Burden	Cumulative ADOC dollars saved by greater airport efficiency	\$246.6M (estimated FY07 actual savings)	Additional \$74.21M saved in FY08	Available 10/2008
2008	Reduced Congestion	Mission and Business Results	Transportation	Air Transportation	Peak airport capacity rate (arrival rate per hr.)	Airport capacity baseline levels are determined by a one-year data collection effort prior to TMA installation. See Note***.	Maintain peak airport capacity achieved in previous years.	Available 10/2008
2008	Reduced Congestion	Processes and Activities	Productivity and Efficiency	Efficiency	Percentage of TMA equipped En Route Centers where time based metering is used to manage at least one peak demand period a day when airport demand exceeds capacity		80%	Available 10/2008
2008	Reduced Congestion	Technology	Reliability and Availability	Availability	Percentage of the time TMA is available to users	99% adjusted operational availability	TMA should meet or exceed baseline requirement	Available 10/2008
2009	Reduced Congestion	Customer Results	Customer Benefit	Customer Impact or Burden	Cumulative ADOC dollars saved by greater airport efficiency		Additional \$125.9M saved in FY09	Available 10/2009
2009	Reduced Congestion	Mission and Business Results	Transportation	Air Transportation	Peak airport capacity rate (arrival rate per hr.)	Airport capacity baseline levels are determined by a one-year data collection effort prior to TMA installation. See Note***.	Maintain peak airport capacity achieved in previous years.	Available 10/2009
2009	Reduced Congestion	Processes and Activities	Productivity and Efficiency	Efficiency	Percentage of TMA equipped En Route Centers where time based metering is used to manage at least one peak demand period a day when airport demand exceeds capacity		85%	Available 10/2009
2009	Reduced Congestion	Technology	Reliability and Availability	Availability	Percentage of the time TMA is available to users	99% adjusted operational availability	TMA should meet or exceed baseline requirement	Available 10/2009
2010	Reduced Congestion	Customer Results	Customer Benefit	Customer Impact or Burden	Cumulative ADOC dollars saved by greater airport efficiency		Additional \$160.3M saved in FY10	Available 10/2010
2010	Reduced Congestion	Mission and Business Results	Transportation	Air Transportation	Peak airport capacity rate	Airport capacity baseline levels are determined by a one-year data collection effort prior to TMA installation. See Note***.	Maintain peak airport capacity achieved in previous years.	Available 10/2010
2010	Reduced Congestion	Processes and Activities	Productivity and Efficiency	Efficiency	Percentage of TMA equipped	85%	90%	Available 10/2010
				I.				

Performance In	formation Table				gie Chtr (TMA)			
Fiscal Year	Strategic Goal(s) Supported	Measurement Area	Measurement Category	Measurement Grouping	Measurement Indicator	Baseline	Target	Actual Results
					En Route Centers where time based metering is used to manage at least one peak demand period a day when airport demand exceeds capacity			
2010	Reduced Congestion	Technology	Reliability and Availability	Availability	Percentage of the time TMA is available to users	99% adjusted operational availability	TMA should meet or exceed baseline requirement	Available 10/2010
2011	Reduced Congestion	Customer Results	Customer Benefit	Customer Impact or Burden	Cumulative ADOC dollars saved by greater airport efficiency		Additional \$195.2M saved in FY11	Available 10/2011
2011	Reduced Congestion	Mission and Business Results	Transportation	Air Transportation	Peak airport capacity rate (arrival rate per hr.)	Airport capacity baseline levels are determined by a one-year data collection effort prior to TMA installation. See Note***.	Maintain peak airport capacity achieved in previous years.	Available 10/2011
2011	Reduced Congestion	Processes and Activities	Productivity and Efficiency	Efficiency	Percentage of TMA equipped En Route Centers where time based metering is used to manage at least one peak demand period a day when airport demand exceeds capacity	90%	95%	Available 10/2011
2011	Reduced Congestion	Technology	Reliability and Availability	Availability	Percentage of the time TMA is available to users	99% adjusted operational availability	TMA should meet or exceed baseline requirement	Available 10/2011
2012	Reduced Congestion	Customer Results	Customer Benefit	Customer Impact or Burden	Cumulative ADOC dollars saved by greater airport efficiency		Additional \$223.9M saved in FY12	Available 10/2012
2012	Reduced Congestion	Mission and Business Results	Transportation	Air Transportation	hr.)	Airport capacity baseline levels are determined by a one-year data collection effort prior to TMA installation. See Note***.	Maintain peak airport capacity achieved in previous years.	Available 10/2012
2012	Reduced Congestion	Processes and Activities	Productivity and Efficiency	Efficiency	Percentage of TMA equipped En Route Centers where time based metering is used to manage at least one peak demand period a day when airport demand exceeds capacity		95%	Available 10/2012
2012	Reduced Congestion	Technology	Reliability and Availability	Availability	Percentage of the time TMA is available to users	99% adjusted operational availability	TMA should meet or exceed baseline requirement	Available 10/2012
2013	Reduced Congestion	Customer Results	Customer Benefit	Customer Impact or Burden	Cumulative ADOC dollars saved by greater airport efficiency		Additional \$226.1 M saved in FY13	Available 10/2013
2013	Reduced Congestion	Mission and Business Results	Transportation	Air Transportation	Peak airport capacity rate (arrival rate per hr.)	Airport capacity baseline levels are determined by a one-year data collection effort prior to TMA installation. See Note***	Maintain peak airport capacity achieved in previous years.	Available 10/2013
2013	Reduced	Processes and	Productivity and	Efficiency	Percentage of	95%	100%	Available

Performance Ir	Performance Information Table										
Fiscal Year	Strategic Goal(s) Supported	Measurement Area	Measurement Category	Measurement Grouping	Measurement Indicator	Baseline	Target	Actual Results			
	Congestion	Activities	Efficiency		TMA equipped En Route Centers where time based metering is used to manage at least one peak demand period a day when airport demand exceeds capacity			10/2013			
2013	Reduced Congestion	Technology	Reliability and Availability	Availability	9	99% adjusted availability requirement		Available 10/2013			

# Section E: Security and Privacy (IT Capital Assets only)

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).

For existing Mixed-Life Cycle investments where enhancement, development, and/or modernization is planned, include the investment in both the "Systems in Planning" table (Table 3) and the "Operational Systems" table (Table 4). Systems which are already operational, but have enhancement, development, and/or modernization activity, should be included in both Table 3 and Table 4. Table 3 should reflect the planned date for the system changes to be complete and operational, and the planned date for the associated C&A update. Table 4 should reflect the current status of the requirements listed. In this context, information contained within Table 3 should characterize what updates to testing and documentation will occur before implementing the enhancements; and Table 4 should characterize the current state of the materials associated with the existing system.

All systems listed in the two security tables should be identified in the privacy table. The list of systems in the "Name of System" column of the privacy table (Table 8) should match the systems listed in columns titled "Name of System" in the security tables (Tables 3 and 4). For the Privacy table, it is possible that there may not be a one-to-one ratio between the list of systems and the related privacy documents. For example, one PIA could cover multiple systems. If this is the case, a working link to the PIA may be listed in column (d) of the privacy table more than once (for each system covered by the PIA).

The questions asking whether there is a PIA which covers the system and whether a SORN is required for the system are discrete from the narrative fields. The narrative column provides an opportunity for free text explanation why a working link is not provided. For example, a SORN may be required for the system, but the system is not yet operational. In this circumstance, answer "yes" for column (e) and in the narrative in column (f), explain that because the system is not operational the SORN is not yet required to be published.

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 Yes and integrated into the overall costs of the investment:
- a. If "yes," provide the "Percentage IT Security" for the 2.70 budget year:
- 2. Is identifying and assessing security and privacy risks a part Yes of the overall risk management effort for each system supporting or part of this investment.

3. Systems in Pla	nning and Underg	oing Enhancement	(s), Development	and/or Moderniz	ation - Security Ta	ible(s):		
Name o	f System		Agency/ or Contractor Operated System? Planned Operational Date		Date of Planned C&A update existing mixed life cycle syste or Planned Completion Date new systems)			
Redacted								
4. Operational Systems - Security Table:								
Name of System	Agency/ or Contractor Operated System?	NIST FIPS 199 Risk Impact level (High, Moderate, Low)	Has C&A been Completed, using NIST 800-37? (Y/N)	Date Completed: C&A	What standards were used for the Security Controls tests? (FIPS 200/NIST 800-53, Other, N/A)	Date Complete(d): Security Control Testing	Date the contingency plan tested	
Redacted								

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

identified by the agency or IG?

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

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

Redacted

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

Redacted

7. How are contractor security procedures monitored, verified, and validated by the agency for the contractor systems above? Redacted

8. Planning & Operation	nal Systems - Privacy Tal	ole:			
(a) Name of System	(b) Is this a new system? (Y/N)	(c) Is there at least one Privacy Impact Assessment (PIA) which covers this system? (Y/N)	(d) Internet Link or Explanation	(e) Is a System of Records Notice (SORN) required for this system? (Y/N)	(f) Internet Link or Explanation
Traffic Management Advisor - Kansas City (ZKC)	No	No	There is not a PIA for TMA because the system does not contain, process, or transmit personal identifying information.	No	There is not a SORN published for TMA because the system is not a Privacy Act system of records.
Traffic Management Advisor - Single Center (All Operational Sites)	No	No	There is not a PIA for TMA because the system does not contain, process, or transmit personal identifying information.	No	There is not a SORN published for TMA because the system is not a Privacy Act system of records.

#### Details for Text Options:

Column (d): If yes to (c), provide the link(s) to the publicly posted PIA(s) with which this system is associated. If no to (c), provide an explanation why the PIA has not been publicly posted or why the PIA has not been conducted.

Column (f): If yes to (e), provide the link(s) to where the current and up to date SORN(s) is published in the federal register. If no to (e), provide an explanation why the SORN has not been published or why there isn't a current and up to date SORN.

Note: Working links must be provided to specific documents not general privacy websites. Non-working links will be considered as a blank field.

## Section F: Enterprise Architecture (EA) (IT Capital Assets only)

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.

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

Yes

Yes

- a. If "no," please explain why?
- 2. Is this investment included in the agency's EA Transition Strategy?
- a. If "yes," provide the investment name as identified in the Transition Strategy provided in the agency's most recent annual EA Assessment.

Traffic Management Advisor - Single Center (TMA)

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. The following public NAS websites document the plan for the FAA's target architecture where the investment can be found as well as a sequencing plan showing the dependencies.

NAS Architecture - TM Strategic Flow - identified as "TMA Display"

(http://www.nas-architecture.faa.gov/nas5/view\_service/oi\_extended.cfm?svhid=105201)

NAS Architecture - TM Synchronization - identified as "TMA Display"

(http://www.nas-architecture.faa.gov/nas5/view\_service/oi\_extended.cfm?svhid=104115)

NAS Architecture Roadmap - TMA Sequencing

 $(http://www.nas-architecture.faa.gov/nas5/view\_exec/automation.cfm)\\$ 

3. Is this investment identified in a completed (contains a target architecture) and approved segment architecture?

a. If "yes," provide the name of the segment architecture as Air Traffic provided in the agency's most recent annual EA Assessment.

4. Service Component 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.ego Service Service FEA SRM Agency Agency Internal or FEA SRM FEA SRM Component Component **BY Funding** Component Component Service External Service Type Component (a) **Reused Name** Reused UPI ercentage (d) Name . Description Domain Reuse? (c) (b) (b) Airborne Airborne Business Business Decision Suppor No Reuse The tactical Analytical Intelligence and Planning sequencing, Services spacing, and routing of aircraft to maximize efficiency and capacity in response to weather infrastructure, o other conditions that limit efficient operations. Flight Day Flight day traffic Business No Reuse 30 Business Demand Management Analytical Intelligence management Forecasting / optimizes NAS Services Mamt traffic flow for the current 24hour period. Demand profiles are compared with projections of NAS capacity for the current day and identify periods and . locations where predicted demand exceeds predicted capacity. Specific responses to maximize efficiency are developed and implemented through collaboration across the NAS Airborne Airborne Support Services Collaboration Task No Reuse 20 The tactical Management sequencing, spacing, and routing of aircraft to maximize efficiency and capacity in response to weather. infrastructure, o other conditions that limit efficient operations

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 the column can, but are not required to, add up to 100%.

To demonstrate how this major	5. 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 (a)	FEA TRM Service Area	FEA TRM Service Category	FEA TRM Service Standard	Service Specification (b) (i.e., vendor and product name)					
Demand Forecasting / Mgmt	Component Framework	Business Logic	Platform Independent	Redacted					
Decision Support and Planning	Component Framework	Business Logic	Platform Independent	Redacted					
Decision Support and Planning	Component Framework	Security	Supporting Security Services	Redacted					
Decision Support and Planning	Service Interface and Integration	Interface	Service Description / Interface	Redacted					
Task Management	Service Platform and Infrastructure	Hardware / Infrastructure	Local Area Network (LAN)	Redacted					
Decision Support and Planning	Service Platform and Infrastructure	Hardware / Infrastructure	Servers / Computers	Redacted					
Decision Support and Planning	Service Platform and Infrastructure	Support Platforms	Platform Dependent	Redacted					

- 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.
- 6. Will the application leverage existing components and/or applications across the Government (i.e., FirstGov, Pay.Gov, etc)?
  - a. If "yes," please describe.

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

## Section A: Alternatives Analysis (All Capital Assets)

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?
- Nο
- a. If "yes," provide the date the analysis was completed?
- b. If "no," what is the anticipated date this analysis will be completed?
  - c. If no analysis is planned, please briefly explain why:

There are no plans to perform an Alternative Analysis. In 1998, the FAA tasked the Radio Technical Commission for Aeronautics (RTCA) to identify ways to reduce congestion and flight delays. RTCA did market research and presented the TMA system as the only viable solution. The FAA elected to pursue implementation of the TMA system and no additional alternatives analysis was performed.

A goal of the FAA Flight Plan is Greater Capacity. Promoting the use of automated systems such as TMA to provi

2. Alternative Analysis Results: Use the results of your alternatives ana	lysis to complete the following table:		* Costs in millions
Alternative Analyzed	Description of Alternative	Risk Adjusted Lifecycle Costs estimate	Risk Adjusted Lifecycle Benefits estimate
Redacted			

- 3. Which alternative was selected by the Agency's Executive/Investment Committee and why was it chosen?
- Redacted
- 4. What specific qualitative benefits will be realized?

Redacted

- 5. Will the selected alternative replace a legacy system in-part No or in-whole?
- 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.
  - b. If "yes," please provide the following information:

List of Legacy Investment or Systems									
Name of the Legacy Investment of Systems	UPI if available	Date of the System Retirement							

# Section B: Risk Management (All Capital Assets)

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?

4/10/2007

b. Has the Risk Management Plan been significantly changed since last year's submission to OMB?

Yes

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

The updated TMA Risk Management Plan (dated 10 April 07) provides a greater detail description of the risk process. The

process developed to support risk management in TMA is continuous for the duration of the program and is an internal process iteratively performed by TMA team leads. The process is characterized by five primary functions: Identify Risks, Analyze Risks, Select risk Mitigation Option, Implement Risk Mitigation Plan, Monitor and Track Risk. The first three functions address the analytical identification and assessment of risks while the last functions address the management of mitigation activities. Monthly review is conducted by the risk manager, and the results are used by the management team to adjust the program elements with perceived risk.

- 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: Risk is reflected in the TMA program in five ways.

First, software tools were used to lay the foundation for program costs and risks. For Phase 1, a clerical error resulted in the loss of the original data used to calculate risk so it is no longer available. However, all the primary development work was done during this phase and the program manager estimates that the risk adjustment was approximately 7%. For phase 2, Crystal Ball was used to develop high confidence cost estimates for program elements. The process consisted of selecting TMA program cost-driver elements, then estimating the uncertainties based on historical experience with the contractors and the TMA system. A Monte Carlo Data Analysis was used to generate a normal distribution of cost vs. uncertainty. The normal distribution histogram was then compared to point estimate method resulting in a 1.63% cost risk adjustment factor and 80/20 confidence level for Phase 2. Prior to establishing the baseline for phase 2, program elements with perceived risk were adjusted to reflect the potential cost if the risk materialized.

Second, there is currently \$5.9M in management reserve included in the TMA total program baseline shown in the SOS table and section II.C totals. The management reserve enables the program to be responsive to unknown/unplanned needs.

Third, the TMA program execution schedule contains float that enables us to absorb problems and still meet the program baseline milestones.

Fourth, we initiated TMA as a spiral development program. Spiral development follows a "build a little-test a little", "build some more-test some more" philosophy. This approach allows us to manage the evolution of the TMA product to meet stakeholder needs. Spiral development has been halted in order to complete the currently approved baseline. The H/W-S/W configuration is being stabilized. System critical issues and safety related issues will be incorporated as necessary. The TMA program includes a control account titled Spiral Development Planning & Control to cover managed evolution (see Table 2.C.4).

Finally, IBRs are conducted for every evolution/modification to the program plan. The IBRs help us validate costs and identify risks. Further development of TMA capabilities will be identified, costed, and submitted to the FAA JRC for approval at a later date but are considered beyond the scope of the currently approved baseline.

Lifecycle costs with/without risk are \$510.418/452.810.

#### Section C: Cost and Schedule Performance (All Capital Assets)

EVM is required only on DME portions of investments. For mixed lifecycle investments, O&M milestones should still be included in the table (Comparison of Initial Baseline and Current Approved Baseline). This table should accurately reflect the milestones in the initial baseline, as well as milestones in the current baseline.

- 1. Does the earned value management system meet the Criteria in ANSI/EIA Standard-748?
- 2. Is the CV% or SV% greater than +/- 10%? (CV%= CV/EV x No 100; SV%= SV/PV x 100)
  - a. If "yes," was it the CV or SV or both?
  - b. If "yes," explain the causes of the variance:
  - c. If "yes," describe the corrective actions:
- 3. Has the investment re-baselined during the past fiscal year? Yes
- a. If "yes," when was it approved by the agency head? 5/29/2007

# 4. Comparison of Initial Baseline and Current Approved Baseline

Complete the following table to compare actual performance against the current performance baseline and to the initial performance baseline. In the Current Baseline section, for all milestones listed, you should provide both the baseline and actual completion dates (e.g., "03/23/2003"/ "04/28/2004") and the baseline and actual total costs (in \$ Millions). In the event that a milestone is not found in both the initial and current baseline, leave the associated cells blank. Note that the 'Description of Milestone' and 'Percent Complete' fields are required. Indicate '0' for any milestone no longer active.

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Milestone Number	Description of Milestone	Initial Baseline		Current Baseline				Current Baseline Variance			
		Planned Completion Total Cost (\$M)	Completion Date (mm/dd/yyyy)		Total Cost (\$M)		Schedule		Percent		
		Date (mm/dd/yyy y)	Estimated	Planned	Actual	Planned	Actual	(# days)	Cost (\$M)	Complete	
Redacted											1