

**FAAXX013: Automated Surface Observing System / Automated Weather Observing System
(ASOS/AWOS)**

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:	FAAXX013: Automated Surface Observing System / Automated Weather Observing System (ASOS/AWOS)
5. Unique Project (Investment) Identifier: (For IT investment only, see section 53. For all other, use agency ID system.)	021-12-01-21-01-1030-00
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:

Aviation Surface Weather Observation Network (ASWON), a collection of weather equipment that supports the FAA and National Weather Service (NWS) modernization by automating surface weather observations. ASWONs role is to provide timely and accurate surface weather conditions to pilots, air traffic controllers, other aviation users, and the national weather data network. It provides weather information at approximately 800 facilities and over the internet. It consists of 8 projects: In-service: ASOS Pre-Planned Product Improvement (ASOS P3I), Automated Weather Sensor System (AWSS), Stand-Alone Weather Sensors (SAWS) Steady State: Automated Weather Observing System (AWOS), Automated Surface Observing System (ASOS), ASOS/AWOS Data Acquisition System (ADAS), Model F420 anemometer (F420), Digital Altimeter Setting Indicator (DASI) barometer (These have been included in table II.C.9) ASWON fills several performance gaps: 1)The automated weather equipment is a cost-beneficial alternative to human weather observers (HWO). The 20 year cost of the automated systems is \$900K versus \$3 million for HWOs. 2)ASOS, AWOS, and AWSS provide wind speed, direction, & gusts; altimeter; visibility; cloud height & type; precipitation identification; temperature; and dew point. ASOS P3I will implement 5 upgrades to ASOS: processor, dew point sensor, ice-free wind sensor, enhanced precipitation identifier, and ceilometer. 3)SAWS, a backup to ASOS at service Level C facilities, provides temperature, dew point, altimeter, wind speed, direction & gusts. SAWS can be used as a replacement for the F420 and DASI. 4) ADAS disseminates the weather information so more users have access to the information and increases the accuracy of local, regional, and national forecasts. ADAS connects ASOS, AWSS, and AWOS; to the National Aviation Data Information Network (NADIN). ASWON requested a rebaseline decision from the Joint Resources Council (JRC) due to large EVM cost and schedule variances that grew due to funding cuts in the last 3 fiscal years. In preparation of the JRC decision, alternatives analyses were performed on the ASOS P3I program. (See Section II.A) ASWON received JRC approval on the rebaseline decision on 6/29/06. In accordance with this decision, the SAWS and AWSS projects will be completed in FY06, ASOS P3I will be completed in FY12. Additionally, the JRC approved the removal of the ACE,ACE-IDS,SAIDS, and DSU projects from ASWON.

9. Did the Agency's Executive/Investment Committee	Yes
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approve this request?	
a. If "yes," what was the date of this approval?	6/29/2006
10. Did the Project Manager review this Exhibit?	Yes
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.	Yes
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 1

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)? Yes

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 65.000000

Software 0.000000

Services 35.000000

Other 0.000000

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	0	0	0	0	0	0	0	0	0
Acquisition									
Budgetary Resources	349.5	3.5	5	5	0	0	0	0	0
Subtotal Planning & Acquisition									
Budgetary Resources	349.5	3.5	5	5	0	0	0	0	0
Operations & Maintenance									
Budgetary Resources	82	19.4	29.5	30.3	0	0	0	0	0
TOTAL									
Budgetary Resources	431.5	22.9	34.5	35.3	0	0	0	0	0
Government FTE Costs									
Budgetary Resources	28.5	2.4	2.2	2.3	0	0	0	0	0
Number of FTE represented by Costs:	180	10	10	10	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:

The ASOS P3I Inter Agency Agreement (IA) (FAA/NWS) was signed in June 2006. The ASOS P3I contract is led and managed by the National Weather Service. Even though the FAA does not manage the ASOS P3I contract, EVM implementation using FAA approved compliance criteria aligned with the current ANSI/EIA 748 is implemented. The ASWON EVM Plan of Actions and Milestones (POAM) is specific in detail to help the ASWON program manager effectively and efficiently implement an EVM process to enable the program to establish EVM practices that improve their program management capabilities in compliance with the FAA AMS and ANSI/EIA 748A Standard. The accomplishment of the ASOS P3I EVM POAM activities will result in the ASWON program team creating a program management system that supports the implementation of EVM in compliance with the standards and in accordance with FAA requirements. After the program implements its EVMS, the FAA Focal Point will validate the ASOS P3I EVMS capability.

Progress against the EVM action plan has been monitored quarterly by the FAA VMO. The implementation is planned to be completed in 2006, with EVM reports being provided thereafter. Earn Value Management (EVM) was not imposed on the British Aerospace Systems (BAE) and the Engineering Support Services Area (ESSA) contracts since these are engineering support services contracts. However, tools that resemble a traditional Earn Value Management (EVM) technique have been self imposed on these programs since August 2004. All the useful segments reported are reviewed and reported on a monthly basis, using American National Standards Institute (ANSI)/Electronic Industries Alliance (EIA) Standard 748-A criteria. A monthly Budgeted Cost of Work Scheduled (BCWS) plot was established for each useful segment at the start of FY07, while cost Actual Cost of Work Performed (ACWP) and performance Budgeted Cost of Work Performed (BCWP) measures are taken on a monthly basis. Note 1: The stated \$114M is under an umbrella contract that provided Management Support for all other programs within ATO-T. Only \$5.4M is incurred under the ASWON. Note2: The stated \$3.037M is under an umbrella contract that provided Management Support for all other programs within ATO-T. Only \$.35M is incurred under the ASWON. Although the current overall ASWON Program assessment is RED, the Program is currently improving its EVM/FAA compliancy. In recent months, ASWON has participated in two of the required five EVM checkpoint as

3. Do the contracts ensure Section 508 compliance?	N/A
a. Explain why:	In accordance with the FAA's Section 508 Procurement Operating Procedures, none of the Section 508 standards apply to ASWON. All ASWON contracts predate the 21 June 2001 effective date for Section 508 compliance.
4. Is there an acquisition plan which has been approved in accordance with agency requirements?	Yes
a. If "yes," what is the date?	6/29/2006
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/ Safety: Reduction in	Number of Service Level "C" ATC	11 Service Level "C" Air Traffic	270 Air Traffic Control Facilities to	33 ATC towers out of 59 (59 %) as of

	transportation-related deaths; Reduction in transportation-related injuries. By 2008, reduce commercial aviation fatal accidents to 0.01 per 100 thousand departures; and reduce general aviation fatal accidents to 325.F	facilities having automated surface weather observation capabilities	Control (ATC) facilities requiring backup automated surface weather observation have the capability	obtain automated surface weather observation backup capabilities	09/30/04 have a backup automated surface weather observation capability
2003	DOT Goal: Mobility/Increased reliability throughout the system: By 2008, increase the percent of flights arriving on time to 83.64 percent. FAA Goal /Increase Capacity / Obj.1: Increase airport capacity/Target: Sustain operational availability at 99%	SAWS availability rate	Backup automated surface weather observation provided by SAWS has an availability of 99%	SAWS availability should not fall below 99%	SAWS availability was 99.925% for the period 10/02 through 09/03
2003	DOT Goal: Mobility/Increased reliability throughout the system: By 2008, increase the percent of flights arriving on time to 83.64 percent. FAA Goal/Increase Capacity/Obj.1: Increase airport capacity/Target: Sustain operational availability at 99%	ACE-IDS availability rate	ACE-IDS has an availability rate of 99%	ACE-IDS availability should not fall below 99%	ACE-IDS availability was 99.5% for the period 10/02 through 09/04
2003	DOT Goal: Mobility/Increased reliability throughout the system: By 2008, increase the percent of flights arriving on time to 83.64 percent. FAA Goal/Increase Capacity/Obj.1: Increase airport capacity/Target: sustain operational availability at 99%.	ASOS availability rate	Automated weather observation provided by ASOS at 571 sites has an availability of 98.0%	ASOS availability does not fall below 98.0%	ASOS availability was 98.6% for the period 10/02 through 09/03.
2004	DOT Goal: Mobility/Increased reliability throughout the system: By 2008,	Number of Service Level "C" ATC facilities having automated surface weather	33 Service Level "C" Air Traffic Control (ATC) facilities requiring automated surface	270 Air Traffic Control Facilities to obtain automated surface weather observation	65 ATC towers out of 270 as of 09/30/05 have an automated surface weather

	increase the percent of flights arriving on time to 83.64 percent. FAA Goal/Increase Capacity/ Obj.1: Increase airport capacity/Target: Sustain operation availability at 99%.	observation capabilities	weather observation have the capability	backup capabilities	observation capability
2004	DOT Goal: Mobility/Increased reliability throughout the system: By 2008, increase the percent of flights arriving on time to 83.64 percent. FAA Goal/Increase Capacity/Obj.1: Increase airport capacity/Target: Sustain operation availability at 99%.	SAWS availability rate	Backup automated surface weather observation provided by SAWS has an availability of 99%	SAWS availability should not fall below 99%	SAWS availability was 99.925% through 09/04.
2004	DOT Goal: Mobility/Increased reliability throughout the system: By 2008, increase the percent of flights arriving on time to 83.64 percent. FAA Goal/Increase Capacity/Obj.1: Increase airport capacity/Target: Sustain operation availability at 99%.	Increase ACE-IDS weather reporting to 100%	65 planned Air Traffic Control (ATC) facilities have the weather reporting capability provided by ACE-IDS	25 Air Traffic Control Facilities with ACE-IDS weather reporting capabilities	90 ATC facilities have the ACE-IDS weather reporting capability

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	Customer Burden or Impact / weather-related delays (# of delayed flights)	Baseline in 1Q05 for FY02-FY04 the delays associated with marginal weather conditions	Reduce delays by 2% in marginal weather conditions from improved precipitation	Weather delays are 1% of total aviation operations.

						and wind accuracy	
2005	Mission and Business Results	Transportation	Air Transportation	Increase Capacity / Weather data availability	Requirement for ASOS Availability = 99%	Increase to 99.1%	99.4%
2005	Mission and Business Results	Transportation	Air Transportation	Implement weather condition detection of drizzle and ice pellets	Ability to detect rain and snow is available	Implement detection of drizzle, freezing drizzle, and ice pellets	Only detection of rain and snow has been implemented to date.
2005	Mission and Business Results	Transportation	Air Transportation	# of ASOSs with 3 second wind averaging	Wind measurement is a 5-sec average which is not compliant with World Meteorological Organization (WMO) standard of 3-second average	Improve wind measurement to 3-second average to be compliant with World Meteorological Organization standards	Duplication of measurement indicator. This has been deleted.
2005	Processes and Activities	Cycle Time and Resource Time	Cycle Time	Data Reliability and Quality (replace aging F420 wind sensors)	Install 120 SAWS-equipped facilities.	At a minimum of 51 of all SAWS-equipped facilities, AT managers will assign SAWS as the controllers' primary source of operational winds and altimeter setting data.	101 SAWS commissioned to date. Providing a back up capability to ASOS at those sites.
2005	Processes and Activities	Management and Innovation	Compliance	Compliance (# of ASOS with 3 second wind averaging)	Wind measurement is a 5-sec average	Improve wind measurement accuracy by upgrading to sensor that takes 3-second average	101 of 571 ice free wind sensors have been installed.
2005	Processes and Activities	Productivity and Efficiency	Efficiency	# of displays used per controller per operator position	Current multi-display ATC work station	Reduce complexity by one display monitor by routing WARP data to ACE-IDS display	No longer an ASWON goal due to the Rebaseline that JRC approved on 6/29/06..
2005	Processes and Activities	Productivity and Efficiency	Productivity	Productivity (reduced air traffic controller labor to augment ASOS)	At Service Level C facilities, air traffic controllers augment surface weather observations provided by ASOS.	At SAWS-equipped facilities, reduce the instances of controller failure to perform manual augmentation of missing ASOS sensor data to fewer than 5%.	101 SAWS commissioned to date, providing an automated back up capability to ASOS at those sites and thus reducing air traffic controller labor.

2005	Technology	Financial (Technology)	Operations and Maintenance Costs	Operations and Maintenance Costs	\$1313 per dew point sensor per year to maintain	Reduce maintenance costs to: \$150 per dew point sensor per year	Achieved maintenance costs of dew point sensors per year.
2005	Technology	Financial (Technology)	Operations and Maintenance Costs	Operations and Maintenance Costs	\$6.5M per year of telecommunications services used NAS-wide to distribute data to remotely located display heads that are addressable by ACE-IDS	Through introduction of ACE-IDS network, realize an overall savings of \$4 million in FY05	No longer an ASWON goal due to the Rebaseline that JRC approved on 6/29/06.
2005	Technology	Reliability and Availability	Availability	System Availability	Backup automated surface weather observation provided by SAWS has an availability of 99%	Do not fall below SAWS availability of 99%.	99.7%
2006	Customer Results	Customer Benefit	Customer Impact or Burden	Customer Burden or Impact / weather-related delays (# of delayed flights)	Baseline in 1Q05 for FY02-FY04 the delays associated with marginal weather conditions	Reduce delays by 2% in marginal weather conditions from improved precipitation and wind accuracy.	The results for this performance measure will be Avail-able Oct07
2006	Mission and Business Results	Transportation	Air Transportation	Increase Capacity / Weather data availability	Requirement for Availability = 99%	Sustain increase to 99.1%	The results for this performance measure will be available Oct 07.
2006	Mission and Business Results	Transportation	Air Transportation	Implement weather condition detection of drizzle, freezing drizzle, and ice pellets	Ability to detect rain and snow is available	Implement detection of drizzle, freezing drizzle, and ice pellets	Only detection of rain and snow has been implemented to date.
2006	Processes and Activities	Cycle Time and Resource Time	Cycle Time	Data Reliability and Quality (replace aging F420 wind sensors)	Install 120 SAWS-equipped facilities.	At a minimum of 51 SAWS-equipped facilities, AT managers will assign SAWS as the controllers' primary source of operational winds and altimeter setting data.	The results for this performance measure will be available Oct 07.
2006	Processes and Activities	Management and Innovation	Compliance	Compliance	Wind measurement is a 5-sec average	Improve wind measurement accuracy by upgrading to sensor that takes 3-second average	The results for this performance measure will be available Oct 07.

2006	Processes and Activities	Productivity and Efficiency	Efficiency	# of displays used per controller per operator position	Current multi-display ATC work station	Reduce complexity by one display monitor by routing WARP data to ACE-IDS display	The results for this performance measure will be available Oct 07.
2006	Processes and Activities	Productivity and Efficiency	Productivity	Productivity	At Service Level C facilities, air traffic controllers augment surface weather observations provided by ASOS.	At SAWS-equipped facilities, reduce the instances of controller failure to perform manual augmentation of missing ASOS sensor data to fewer than 5%.	The results for this performance measure will be available Oct 07.
2006	Technology	Financial (Technology)	Operations and Maintenance Costs	O&M Costs	\$1313 per dew point sensor per year to maintain	Reduce maintenance costs to: \$150 per dew point sensor per year	The results for this performance measure will be available Oct 07.
2006	Technology	Financial (Technology)	Operations and Maintenance Costs	O&M Costs	\$6.5M per year of telecommunications services used NAS-wide to distribute data to remotely located display heads that are addressable by ACE-IDS	Through introduction of ACE-IDS network, realize an overall savings of \$4 million in FY05	The results for this performance measure will be available Oct 07.
2006	Technology	Reliability and Availability	Availability	Availability	Backup automated surface weather observation provided by SAWS has an availability of 99%	Do not fall below SAWS availability of 99%.	The results for this performance measure will be available Oct 07.
2007	Customer Results	Customer Benefit	Customer Impact or Burden	Customer Burden or Impact / weather-related delays (# of delayed flights)	Baseline in 1Q05 for FY02-FY04 the delays associated with marginal weather conditions	Reduce delays by 2% in marginal weather conditions from improved precipitation and wind accuracy.	The results for this performance measure will be Avail-able Oct08
2007	Mission and Business Results	Transportation	Air Transportation	Increase Capacity / Weather data availability	Requirement for Availability = 99%	Increase to 99.1%	The results for this performance measure will be available Oct 08.
2007	Mission and Business Results	Transportation	Air Transportation	Implement weather condition detection of drizzle, freezing drizzle, and ice	Ability to detect rain and snow is available	Implement detection of drizzle, freezing drizzle, and ice pellets	The results for this performance measure will be Avail-able Oct08

				pellets			
2007	Processes and Activities	Cycle Time and Resource Time	Cycle Time	Data Reliability and Quality (replace aging F420 wind sensors)	Install 120 SAWS-equipped facilities.	At a minimum of 51 SAWS-equipped facilities, AT managers will assign SAWS as the controllers' primary source of operational winds and altimeter setting data.	The results for this performance measure will be available Oct 08.
2007	Processes and Activities	Management and Innovation	Compliance	Compliance	Wind measurement is a 5-sec average	Improve wind measurement accuracy by upgrading to sensor that takes 3-second average	The results for this performance measure will be available Oct 08.
2007	Processes and Activities	Productivity and Efficiency	Efficiency	# of displays used per controller per operator position	Current multi-display ATC workstation	Reduce complexity by one display monitor by routing WARP data to ACE-IDS display	The results for this performance measure will be available Oct 08.
2007	Processes and Activities	Productivity and Efficiency	Productivity	Productivity	At Service Level C facilities, air traffic controllers augment surface weather observations provided by ASOS.	At SAWS-equipped facilities, reduce the instances of controller failure to perform manual augmentation of missing ASOS sensor data to fewer than 5%.	The results for this performance measure will be available Oct 08.
2007	Technology	Financial (Technology)	Operations and Maintenance Costs	O&M Costs	\$1313 per dew point sensor per year to maintain	Reduce maintenance costs to: \$150 per dew point sensor per year	The results for this performance measure will be available Oct 08.
2007	Technology	Financial (Technology)	Operations and Maintenance Costs	O&M Costs	\$6.5M per year of telecommunications services used NAS-wide to distribute data to remotely located display heads that are addressable by ACE-IDS	Through introduction of ACE-IDS network, realize an overall savings of \$4 million in FY05	The results for this performance measure will be available Oct 08.
2007	Technology	Reliability and Availability	Availability	Availability	Backup automated surface weather observation provided by SAWS has an availability of 99%	Do not fall below SAWS availability of 99%.	The results for this performance measure will be available Oct 08.

2008	Customer Results	Customer Benefit	Customer Complaints	Customer Burden or Impact / weather-related delays (# of delayed flights)	Baseline in 1Q05 for FY02-FY04 the delays associated with marginal weather conditions	Reduce delays by 2% in marginal weather conditions from improved precipitation and wind accuracy.	The results for this performance measure will be Avail-able Oct09
2008	Mission and Business Results	Transportation	Air Transportation	Increase Capacity / Weather data availability	Requirement for Availability = 99%	Increase to 99.1%	The results for this performance measure will be Avail-able Oct09
2008	Mission and Business Results	Transportation	Air Transportation	Implement weather condition detection of drizzle, freezing drizzle, and ice pellets	Ability to detect rain and snow is available	Implement detection of drizzle, freezing drizzle, and ice pellets	The results for this performance measure will be Avail-able Oct09
2008	Processes and Activities	Cycle Time and Resource Time	Cycle Time	Data Reliability and Quality (replace aging F420 wind sensors)	Install 120 SAWS-equipped facilities.	At a minimum of 51 SAWS-equipped facilities, AT managers will assign SAWS as the controllers' primary source of operational winds and altimeter setting data.	The results for this performance measure will be Avail-able Oct09
2008	Processes and Activities	Management and Innovation	Compliance	Compliance	Wind measurement is a 5-sec average	Improve wind measurement accuracy by upgrading to sensor that takes 3-second average	The results for this performance measure will be Avail-able Oct09
2008	Processes and Activities	Productivity and Efficiency	Efficiency	# of displays used per controller per operator position	Current multi-display ATC work station	Reduce complexity by one display monitor by routing WARP data to ACE-IDS display	The results for this performance measure will be Avail-able Oct09
2008	Processes and Activities	Productivity and Efficiency	Productivity	Productivity	At Service Level C facilities, air traffic controllers augment surface weather observations provided by ASOS.	At SAWS-equipped facilities, reduce the instances of controller failure to perform manual augmentation of missing ASOS sensor data to fewer than 5%.	The results for this performance measure will be Avail-able Oct09

2008	Technology	Financial (Technology)	Operations and Maintenance Costs	O&M Costs	\$1313 per dew point sensor per year to maintain	Reduce maintenance costs to: \$150 per dew point sensor per year	The results for this performance measure will be Avail-able Oct09
2008	Technology	Financial (Technology)	Operations and Maintenance Costs	O&M Costs	\$6.5M per year of telecommunications services used NAS-wide to distribute data to remotely located display heads that are addressable by ACE-IDS	Through introduction of ACE-IDS network, realize an overall savings of \$4 million in FY05	The results for this performance measure will be Avail-able Oct09
2008	Technology	Reliability and Availability	Availability	Availability	Backup automated surface weather observation provided by SAWS has an availability of 99%	Do not fall below SAWS availability of 99%.	The results for this performance measure will be Avail-able Oct09
2009	Customer Results	Customer Benefit	Customer Complaints	Customer Burden or Impact / weather-related delays (# of delayed flights)	Baseline in 1Q05 for FY02-FY04 the delays associated with marginal weather conditions	Reduce delays by 2% in marginal weather conditions from improved precipitation and wind accuracy.	The results for this performance measure will be Avail-able Oct10
2009	Mission and Business Results	Transportation	Air Transportation	Increase Capacity / Weather data availability	Requirement for Availability = 99%	Increase to 99.1%	The results for this performance measure will be Avail-able Oct10
2009	Mission and Business Results	Transportation	Air Transportation	Implement weather condition detection of drizzle, freezing drizzle, and ice pellets	Ability to detect rain and snow is available	Implement detection of drizzle, freezing drizzle, and ice pellets	The results for this performance measure will be Avail-able Oct10
2009	Processes and Activities	Cycle Time and Resource Time	Cycle Time	Data Reliability and Quality (replace aging F420 wind sensors)	Install 120 SAWS-equipped facilities.	At a minimum of 51 SAWS-equipped facilities, AT managers will assign SAWS as the controllers' primary source of operational winds and altimeter setting data.	The results for this performance measure will be Avail-able Oct10
2009	Processes and Activities	Management and Innovation	Compliance	Compliance	Wind measurement is a 5-sec average	Improve wind measurement accuracy by upgrading to sensor that takes 3-second average	The results for this performance measure will be Avail-able Oct10

2009	Processes and Activities	Productivity and Efficiency	Efficiency	# of displays used per controller per operator position	Current multi-display ATC work station	Reduce complexity by one display monitor by routing WARP data to ACE-IDS display	No longer an ASWON goal due to the Rebaseline that JRC approved on 6/29/06.
2009	Processes and Activities	Productivity and Efficiency	Productivity	Productivity	At Service Level C facilities, air traffic controllers augment surface weather observations provided by ASOS.	At SAWS-equipped facilities, reduce the instances of controller failure to perform manual augmentation of missing ASOS sensor data to fewer than 5%.	The results for this performance measure will be Available Oct10
2009	Technology	Financial (Technology)	Operations and Maintenance Costs	O&M Costs	\$1313 per dew point sensor per year to maintain	Reduce maintenance costs to: \$150 per dew point sensor per year	The results for this performance measure will be Available Oct10
2009	Technology	Financial (Technology)	Operations and Maintenance Costs	O&M Costs	\$6.5M per year of telecommunications services used NAS-wide to distribute data to remotely located display heads that are addressable by ACE-IDS	Through introduction of ACE-IDS network, realize an overall savings of \$4 million in FY05	No longer an ASWON goal due to the Rebaseline that JRC approved on 6/29/06.
2009	Technology	Reliability and Availability	Availability	Availability	Backup automated surface weather observation provided by SAWS has an availability of 99%	Do not fall below SAWS availability of 99%.	The results for this performance measure will be Available Oct10

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:	12.500000
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.

\$200K. The weather data from the AWSS Sensors that is being transmitted is not encrypted. The requested funding will be utilized to rehost the Field Detection Collection Unit (FDCU) hardware/software.

8. Planning & Operational Systems - Privacy Table:

Name of System	Is this a new system?	Is there a Privacy Impact Assessment (PIA) that covers this system?	Is the PIA available to the public?	Is a System of Records Notice (SORN) required for this system?	Was a new or amended SORN published in FY 06?
Automated Surface Observing System (ASOS) / Automated Weather Observing System (AWOS)	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.
Automated Weather Sensor System (AWSS)	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.
Stand Alone Weather System (SAWS)	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. Since this FAA investment does not appear to be specifically mentioned within the DOT Transition Strategy or the FAA Modernization Blueprint, please refer to the following public NAS websites which document the plan for the FAA's target architecture where the investment can be found as well as a sequencing plan showing the dependencies; <http://www.nas-architecture.faa.gov/nas5/faq/tsd>

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
Air Traffic Control (ATC) Advisory Weather Advisory Capability	ATC Advisories - Weather information is stored and available either automatically or manually through communication with ATC and other facilities. For example, pilots receive weather advisories from automated surface observing systems and other systems, or from personnel at ATC facilities and aircraft operations centers (AOCs).	Back Office Services	Data Management	Data Exchange			No Reuse	10

	Advisories provide both routine and hazardous weather information and/or flight conditions, at airports.							
Air Traffic Control (ATC): Advisory Weather Advisory Capability	ATC Advisories: Weather information is available either automatically or manually through communication with ATC and other facilities. For example, pilots receive weather advisories from ASOS and other systems, ATC facilities, and airline operations centers (AOCs). Advisories provide both routine and hazardous weather information and/or flight conditions at airports or along the flight path.	Digital Asset Services	Knowledge Management	Knowledge Capture			No Reuse	50
Air Traffic Control (ATC): Advisory Weather Advisory Capability	ATC Advisories: Weather information is available either automatically or manually through communication with ATC and other facilities. For example, pilots receive weather advisories from ASOS and other systems, ATC facilities, and airline	Digital Asset Services	Knowledge Management	Knowledge Distribution and Delivery			No Reuse	40

	operations centers (AOCs). Advisories provide both routine and hazardous weather information and/or flight conditions at airports or along the flight path.							
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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)
Knowledge Capture	Service Access and Delivery	Access Channels	Other Electronic Channels	406 to 420 megahertz transmission in English synthesized voice
Knowledge Capture	Service Access and Delivery	Access Channels	Other Electronic Channels	406 to 420 megahertz transmission in English synthesized voice
Knowledge Distribution and Delivery	Service Access and Delivery	Access Channels	Other Electronic Channels	TCP/IP S2S Data complies with International Civil Aviation Organization (ICAO) format
Knowledge Distribution and Delivery	Service Access and Delivery	Access Channels	Other Electronic Channels	TCP/IP S2S Data complies with International Civil Aviation Organization (ICAO) format
Data Exchange	Service Access and Delivery	Service Transport	Service Transport	Linux
Data Exchange	Service Platform and Infrastructure	Database / Storage	Database	Oracle
Data Exchange	Service Platform and Infrastructure	Database / Storage	Storage	None

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)?

Yes

a. If "yes," please describe.

The National Weather Service (NWS) and The Federal Aviation Administration (FAA) share the costs of maintaining 571 FAA ASOS systems and 313 NWS ASOS systems. This investment will improve this service.

6. Does this investment provide the public with access to a government automated information system?

No

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

No

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?	6/1/2006
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
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a. If "yes," what is the date of the plan?	7/1/2006
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b. Has the Risk Management Plan been significantly changed since last year's submission to OMB?	Yes
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c. If "yes," describe any significant changes:

The risk management plan has been updated to reflect the rebaseline decision. To implement the plan, risk management meetings will be conducted on a monthly basis and the risks will be updated accordingly. Risk management process templates, process definition templates, risk mitigation options, interaction process, and updated personnel have been modified. The current risks contain none that are categorized as high.

2. If there currently is no plan, will a plan be developed?	
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a. If "yes," what is the planned completion date?	
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b. If "no," what is the strategy for managing the risks?	
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3. Briefly describe how investment risks are reflected in the life cycle cost estimate and investment schedule:

For all ASOS P31 alternatives, costs were estimated starting in the year FY07 due to the rebaseline. The FAA standard Work Breakdown Structure (WBS) was utilized to model the costs. Then-Year risk-adjusted costs were obtained by applying OMB and FAA-approved inflation indices provided in the ACE-IT cost estimating model to constant-year (BY06) risk-adjusted costs. The risk-adjusted costs were derived by using Monte Carlo simulations within the Crystal Ball risk analysis software, based on risk ranges. The total lifecycle cost without risk adjustments is \$588,212.1; total lifecycle cost with risk adjustment for FY07 and beyond is \$622,566.3. A variety of estimating methodologies were used to derive costs. Under F&E, actual costs for early production and testing units and vendor quotes provided by NWS were used to estimate hardware procurement costs. Based on historical sparing levels for other ASOS P31 components, a 10% factor was used to estimate spares for the system. In addition, the NWS provided an estimate for installation and calibration materials for each site. Current FAA employee and contractor support staffing levels and labor rates were used to generate Program Office Support costs. The FAA's portion of Common Infrastructure and Management costs incurred by the NWS was based on historical annual costs and coordinated between the FAA and NWS. There are no studies from NWS that indicate potential O&M cost savings due to either the EPI upgrade or Ceilometer replacements. Subsequently, O&M costs were assumed to be identical across all alternatives. The National Weather Service is responsible for Site Maintenance, Logistics Support, Training and Second Level Engineering Support of the Federal ASOS systems. The FAA reimburses the NWS based on a per system annual cost established under the Interagency Agreement. Thus, In-Service Management costs were limited to four WBS Elements: Program Support, Logistics Support, Utilities, and Telecommunications Costs. FAA Program Support was based on actual and anticipated staffing levels provided by the ATO-W NAS Support Group and calculated using the standard labor and benefits rates. Logistics support costs were estimated using the per system cost established under the Interagency Agreement. Engineering assessments and standard cost inputs for power consumption were used to estimate utilities. And finally, actual telecommunication costs provided by FTI were used to project future telecommunications costs

II.C. Cost and Schedule Performance

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

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)?	384300000.000000
b. What is the Earned Value (EV)?	350700000.000000
c. What is the actual cost of work performed (AC)?	351082000.000
d. What costs are included in the reported Cost/Schedule Performance information (Government Only/Contractor Only/Both)?	Contractor and Government
e. "As of" date:	11/30/2007
3. What is the calculated Schedule Performance Index (SPI = EV/PV)?	0.998000
4. What is the schedule variance (SV = EV-PV)?	-0.425000
5. What is the calculated Cost Performance Index (CPI = EV/AC)?	0.999000
6. What is the cost variance (CV=EV-AC)?	-0.295000
7. Is the CV% or SV% greater than +/- 10%? (CV%= CV/EV x 100; SV%= SV/PV x 100)	No
a. If "yes," was it the?	
b. If "yes," explain the variance:	
c. If "yes," what corrective actions are being taken?	
d. What is most current "Estimate at Completion"?	384600000.000000
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