

MANAGEMENT CHALLENGE

Chapter 2: Ensuring Effective Oversight on Key Initiatives That Can Improve Aviation Safety

Issue 2A:

Identifying and addressing the causes of recent increases in operational errors

It is unclear whether the increase of operational errors from FY09 and FY10 is due to more errors taking place or to the improved reporting within the Agency. Through continued auditing, the OIG believes that other factors are contributing to the increase in operational errors, rather than the Air Traffic Safety Action Program.

The FAA agrees that the introduction of the Air Traffic Safety Action Program (ATSAP) was only one of several factors that influenced the rise in the number of reported operational errors. Over the past several years, the FAA has deliberately transitioned to a non-punitive error reporting system at its air traffic facilities and began implementing electronic monitoring of controller and pilot performance. These additional changes in safety reporting have produced a wealth of information to help the FAA identify potential risk and take swift action to address it.

As anticipated, these changes resulted in higher numbers of incident reports involving loss of required separation between aircraft than in the last several years. Notwithstanding this increase in reporting, the number of incidents is very small; in fact, more than 99.9% of operations occur completely according to procedure.

These increases in reporting are consistent with the implementation of similar systems in the airline industry, e.g., Flight Operation Quality Assurance Program and Aviation Safety Action Program that have been extremely successful in the identification and reduction of potential risk and are absolutely necessary to an effective safety management system.

ACTION PLAN

Cognizant Organization:

Air Traffic Organization (ATO) Safety and Technical Training (AJI)

Tools to be Used to Resolve the Issue:

Safety Orders

On January 30, 2012, the FAA implemented new safety orders and tools to support Proactive Safety Management. These new orders improve the application of safety risk management principles; more effectively ensure compliance with safety standards; and identify, analyze, communicate and correct the root causes of systemic safety problems to reduce risk in the NAS.

The new tools that were deployed with this implementation are the Comprehensive Electronic Data Analysis and Reporting (CEDAR) tool, Falcon 3 and Traffic Analysis and Review Program (TARP). CEDAR is a web-based reporting tool, which provides a transparent data repository, while Falcon 3 provides replay capabilities linked in CEDAR. TARP will electronically collect airborne RADAR loss of separation alerts in terminal airspace.

ATO Safety utilizes the Risk Analysis Process (RAP) Tool for radar, airborne losses of separation in which less than 2/3 of required separation is maintained, known as a Risk Analysis Event (RAE). Analysis is done to aggregate RAE data to identify key hazards that contribute to risk in the NAS. In February 2011, the ATO published findings from this analysis, identifying

	<p>the Top 5 hazards in the NAS.</p> <p>Commitments to mitigate the Top 5 high risk hazards have been added to accountable officials' performance plans. Completion of the corrective actions associated with the Top 5 will mark a systemic reduction of risk in the NAS.</p>	
<p>Time Needed to Resolve the Issue:</p>	<p>CEDAR has been implemented as the tool for facilities to report Mandatory Occurrence Reports (MOR), Electronic Occurrence Reports (EOR), Operational Skills Assessments, System Service Reviews, Covered Event Reviews and Systemic Issue Review's. Quality Control Programs to complete Checks and Validations will be a future integration into CEDAR, this should take place within six months of CEDARs implementation. The six month time period for implementation of these tools, allows for facilities to gather enough data to perform valuable Quality Control Checks that could identify risk and inefficiencies, and support the development of mitigation plans.</p> <p>The "Top 5" hazards identified thru the RAE Process have specific mitigations associated with them to address the hazard identified.</p>	
<p>Specific steps to be taken in FY 2012:</p>	<p>Implementation of Proactive Safety Orders and Tools.</p> <p>Continued MOR/EOR review at the AJS Service Area Offices to identify trends and systemic issues with in the NAS.</p> <p>Continued use of the RAP to identify factors that contributed to occurrences where less than 2/3 of standard separation was maintained.</p> <p>Quality Control Programs implemented in CEDAR for Checks and Validations.</p> <p>Implementation of TARP at all Terminal facilities.</p> <p>Implementation of 22 interventions associated with the mitigations to the Top 5.</p>	<p>January 30, 2012</p> <p>Ongoing, Daily</p> <p>Weekly</p> <p>July 31, 2012</p> <p>Waterfall approach starting January 30, 2012, with all phases completed by September 1, 2012.</p> <p>September 30, 2012</p>
<p>Expected Results, this year and in the future:</p>	<p>Electronic monitoring of radar data coupled with voluntary reporting from controllers has enabled the FAA to develop a standardized risk analysis process and addressed dozens of identified safety concerns.</p> <p>Information contained in our voluntary reporting system has resulted in well over 100 formal and informal corrections to; procedures, equipment, training, phraseology, etc.</p> <p>Additionally, consistent with industry best practices, the FAA is currently addressing five top areas to mitigate risks. The FAA determined the "Top Five" by analyzing collected safety data, considering the severity of an</p>	

incident and the likelihood it will occur. The corrective action plans for each risk will reassess policy, procedures and training to prioritize resources. The "Top Five" includes:

1. Turns to Final – Arrival sequencing to final (angle and speed control.) Aircraft vectors at a speed and/or angle that results in an overshoot of final approach.
2. Parallel Runway Operations – Arrival sequencing at the same altitude and on parallel runways. (Aircraft overshoots turn to final at the same altitude as arrival traffic to a parallel runway.)
3. Go-Arounds – Unexpected go-around operations. (Arrival aircraft executes an unexpected go-around resulting in conflict with departing traffic as well as false ASDE-X alarms triggering a late go-around)
4. Clearance Compliance Altitude – Aircraft at other than expected altitude, for example, incorrect hearback/readback.
5. Coordination – Lack of appropriate or incomplete coordination among operational employees. (Aircraft handoff to controller at an altitude or route other than expected.

The FAA expects the collection and analysis of additional data revealed by our new collection systems will continue to identify areas of potential system risk that will be addressed under our Safety Management System.

MANAGEMENT CHALLENGE

Chapter 2: Ensuring Effective Oversight on Key Initiatives That Can Improve Aviation Safety

Issue 2B:	<p><u>Maintaining momentum in addressing pilot training and fatigue</u> The February 2009 crash of Colgan Air flight 3407 underscored the importance of addressing longstanding concerns about pilot training and fatigue. In April 2100, the FAA issued a supplemental notice of proposed rulemaking (SNPRM) to revise crewmember training requirements. The FAA also published a notice of proposed rulemaking (NPRM) to revise flight, duty and rest requirements for commercial carriers. The OIG believes the FAA still faces challenges tracking pilots with poor performance and training deficiencies, overseeing air carrier programs aimed at improving pilot skills and improving its awareness of the extent of pilot commuting and fatigue within the air carrier industry.</p>
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ACTION PLAN

Cognizant Organization:	Flight Standards Service (AFS)
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Tools to be Used to Resolve the Issue:	<p><u>Flightcrew Member Duty and Rest Requirements</u> The FAA issued the final rule on Flightcrew Member Duty and Rest Requirements on January 4, 2012. The final rule addresses pilot commuting in its requirements for "fitness for duty". All Part 121 air carriers were required to submit fatigue risk management plans (FRMP) which will provide carries with the ability to determine whether it needs to address the commuting practices of its pilots. A FRMP establishes a "Just Culture" where crewmembers do not feel fear of retribution for reporting fatigue and a "Safety Culture" which defines a minimum level of safety for the organization. FAA has accepted all FRMPs and the FAA will continue to review and evaluate periodically any changes to a part 121 air carrier's FRMP, including changes implemented to address fatigue induced by commuting. Any condition found to be below minimum threshold condition will be mitigated and brought to an acceptable level condition. The FAA has already committed to conducting a scan of fatigue literature to determine if additional data on pilot commuting could offer significant safety benefits. The FAA intends to issue a final rule on crewmember training by January 2013. This rule includes both requirements for remedial training programs, as well as a continuous analysis process to identify and correct shortfalls in training.</p>
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Time Needed to Resolve the Issue:	The Flightcrew Member Duty and Rest final rule has a two-year implementation date and therefore will not be effective until January 2014. The final rule for crewmember training will not be issued until January 2013, at the earliest.
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Specific steps to be taken in FY 2012:	Issue final rule on "Flightcrew Member Duty and Rest Requirements"	January 2012
	Issue guidance on Fitness for Duty and Fatigue Risk Management Systems (FRMS)	March 2012
	Literature scan on pilot commuting	October 2012

Expected Results, this year and in the future:	Improved education about the effects of commuting on fatigue. Changes to air carrier systems based on the output of the FRMP. In the future, the implementation of regulatory changes that bolster the requirements for fitness for duty and crewmember training.
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Issue 2C:	<p><u>Advancing risk-based oversight of repair stations and aircraft manufacturers</u></p> <p>Weaknesses are present in the FAA’s Organization Designation Authorization (ODA) program, which is the FAA program for authorizing organizations to issue approvals and certificates on the FAA’s behalf. The FAA has not adequately trained engineers on enforcement responsibilities and some offices have not effectively tracked or addressed poorly performing ODA personnel. In addition ODA significantly reduced FAA’s role in approving individuals who perform work on FAA’s behalf.</p> <p>The Risk-Based Resource Targeting (RBRT) process is used by engineers and manufacturing inspectors within the Aircraft Certification Service. RBRT is an IT solution that assesses risk associated with certification projects and policy development. RBRT is a subjective analysis of risk and does not include detailed data, such as accidents, to assess the risk of non-compliance to regulations. RBRT has not been effective in measuring risk and directing oversight efforts to higher risk projects. Additionally there has been a shortcoming in the training and preparing of the engineers in the organization to use RBRT.</p>
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ACTION PLAN

Cognizant Organization:	Aircraft Certification Service (AIR)
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Tools to be Used to Resolve the Issue:	<p><u>Increase FAA Oversight of Individual ODA Unit Members</u></p> <p>We will increase our focus on individuals within the ODA organization by mandating FAA review of ODA unit selection decisions, tracking poorly performing individuals in FAA databases, and formalizing processes for removing poorly performing individuals from an ODA unit.</p> <p><u>Enhance ODA Training</u></p> <p>We will continue to improve the FAA academy’s delegation management course by focusing courses for engineers on resolution of ODA regulatory violations.</p> <p><u>Improve Oversight Structure for Large ODA Holders.</u></p> <p>We will conduct specific training for dedicated ODA management organizations and interfacing personnel to ensure that everyone is aware of their roles and responsibility in managing an ODA organization. We will also assess the effectiveness of dedicated ODA management structures before implementing it with other ODA organizations.</p> <p><u>electronic Learning Management System (eLMS)</u></p> <p>There is a new learning module posted to the FAA eLMS that will provide more training to the engineers that are required to use RBRT. This training was developed with a team of engineers across the service to ensure it captures good information and identifies the appropriate procedures needed to operate the RBRT process.</p> <p><u>Process owner demonstration road shows</u></p> <p>The business process owner group (AIR-150) has conducted a series of on-site demonstrations to show engineers and inspectors how the RBRT process</p>
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	<p>works. This includes both a presentation on the purpose of the process and a live demo of the actual IT tool.</p> <p><u>RBRT Information Systems User Group (ISUG)</u> We will use an ISUG to develop and implement RBRT tool enhancements before the use of the process is mandatory. This ISUG will include engineers from our field offices allowing us to make needed changes to support them.</p> <p><u>RBRT Continuous Improvement Team</u> We will convene a team of experts across the service to help us continue to mature the RBRT process to include more objective data. This is envisioned to be a long term effort. Additionally, this will require other Aircraft Certification Service programs to come on-line to develop those data sources.</p>	
<p>Time Needed to Resolve the Issue:</p>	<p><u>2014</u> Final assessment of the oversight structure for large ODA holders and any recommended policy changes will be conducted in FY 2013, and any resulting policy will be implemented in 2014. Other initiatives-increasing oversight and enhanced training will be implemented throughout FY 2012.</p> <p>Comprehensive change will occur when we get the technical process designed in the Aviation Safety Knowledge Management Environment (ASKME). This is scheduled to occur by early 2014. Having all the business processes design in this environment will promote data sharing within our electronic tools versus manually. This data sharing will allow RBRT to pull direct data and do a risk analysis versus relying exclusively on subject matter expert input and interpretation of data. RBRT is one of the first tools to be developed in ASKME, thereby not allowing it to interface with other data sources efficiently until they are pulled into ASKME as well. Additionally RBRT was initially developed to mirror the process engineers and inspectors use today to make decisions so that we can identify needed data and develop those sources for future use. RBRT is a direct interface with Engineering Design Approval Process, the Aircraft Certification Audit Information System, and the Designee management System. These processes and their associated data regarding compliance to regulations are necessary to transition to a more objective risk</p>	
<p>Specific steps to be taken in FY 2012:</p>	<p><u>Training for Dedicated Oversight Organizations.</u> Training for Boeing and Gulfstream oversight organizations and interfacing personnel</p> <p><u>Develop Guidance Defining Best Practices.</u> We will identify best practices for proper oversight of ODA organizations to be used for the future assessment of large, dedicated ODA management structures.</p> <p><u>Develop Plan for Assessment of Dedicated Oversight Organizations</u></p> <p><u>Revise ODA Policy Requirements</u> Publish change to Order 8100.15</p>	<p>January 2012</p> <p>June 2012</p> <p>September 2012</p> <p>September 2012</p>

	<p>requiring FAA review of ODA unit selection decisions, tracking poorly performing individuals in FAA databases, and formalizing processes for removing poorly performing individuals from an ODA unit.</p> <p><u>Improve ODA Training</u> Ensure FAA academy training and ODA seminars address the role of the FAA personnel in reviewing ODA unit selection decisions</p> <p><u>RBRT ISUG development</u> Team initially will include representatives from all aircraft certification offices. This team will review all input on changes and enhancements to RBRT to date and make recommendations for revisions before the March 31, 2012 mandatory use deadline.</p> <p><u>RBRT eLMS training</u> This is the training necessary for all employees that will be using RBRT.</p> <p><u>Publish RBRT Notice</u> Publish policy that informs personnel on when to use RBRT.</p> <p><u>Form RBRT Continuous Improvement Team</u> Team to review and make improvement recommendations for RBRT on a long term basis.</p>	<p>September 2012</p> <p>Team formed 1/31/2012</p> <p>Recommended changes developed by 2/29/2012</p> <p>IT Tool revisions complete 3/31/2012</p> <p>Ongoing throughout 2012 with initial users scheduled for completion 3/31/2012</p> <p>Jan 20, 2012</p> <p>April 30, 2012</p>
<p>Expected Results, this year and in the future:</p>	<p>Starting in FY 2012, the FAA is reviewing all ODA unit selection decisions. This was mandated by FAA policy memo issued on October 31, 2012.</p> <p>Training with the Boeing and Gulfstream Oversight Organizations and personnel that interface with those organizations will ensure that they understand their roles and responsibilities in managing those ODA organizations.</p> <p>FY 2012 changes to Order 8100.15 will ensure additional FAA role in overseeing ODA unit individuals by formalizing the process for removal of individuals from the ODA unit and tracking individuals with performance problems in the FAA's Designee Information Network.</p> <p>Future assessment of the Boeing and Gulfstream Oversight organizations will compare their performance against defined best practices and ensure they are performing satisfactorily before adopting similar management structures for other ODA organizations.</p> <p>Beginning in Nov 2011, the field offices have had the ability to work with the new version of RBRT on a voluntary basis. eLMS training was made available and a series of on-site demonstrations were provided to assist the users in understanding the tool.</p>	

	<p>The RBRT process owners in Aircraft Certification have made a long term commitment to continue to transition the tool into a more objective risk assessment by linking to data sources as they become available. Currently the tool does provide a risk at the regulation level that includes data from past accidents. We hope to continue this further by identifying non-compliances that don't always lead to an accident.</p> <p>As the service continues to transition into a Safety Management System, and other processes come on-line within our ASKME architecture throughout 2012, and 2013 we will be able to use more objective data to transition RBRT from a subjective SME input tool to a complete data based risk assessment tool.</p>
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MANAGEMENT CHALLENGE			
Chapter 2: Ensuring Effective Oversight on Key Initiatives That Can Improve Aviation Safety			
Issue 2D:	<p><u>Enhancing air carrier collaboration and making domestic code share arrangements more transparent to consumers</u></p> <p>Domestic code share agreements are an integral part of the aviation system. While they can help mainline and regional carriers expand their markets, they also present challenges. Differences have been identified between the hiring, training, professionalism, and safety programs of most regional and mainline carriers. FAA must make oversight of mainline and regional air carriers operating under domestic code share agreements a top priority in order to ensure the safety of passengers who depend on those flights.</p>		
ACTION PLAN			
Cognizant Organization:	Flight Standards Service (AFS)		
Tools to be Used to Resolve the Issue:	<p><u>Regulatory Standards</u></p> <p>The FAA holds all part 121 air carriers to the same regulatory standards and provides the same oversight, regardless of business arrangement. An air carrier may sell tickets under another's code; however that has no bearing on the obligation of an air carrier to individually meet regulatory requirements.</p>		
Time Needed to Resolve the Issue:	<p>This management challenge was carried over from 2011. The following statement was submitted in 2011, "Based on discussion with AFS, ABU, and OST, OST contacted the OIG in regards to this management challenge. OST spoke with the auditor and based on that discussion, the auditor stated that it was too early for FAA to comment on to a specific course of action since this audit is still active and OIG expects to provide the FAA with a discussion draft in the summer of 2011. FAA is no longer required to provide an update to this management challenge."</p>		
Specific steps to be taken in FY 2012:	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center;">** pending audit **</td> <td style="width: 50%; text-align: center;">** pending audit **</td> </tr> </table>	** pending audit **	** pending audit **
** pending audit **	** pending audit **		
Expected Results, this year and in the future:	<p>The OIG produced a discussion draft on Jan 3, 2012 and held an exit conference with the FAA on Jan 12, 2012 to discuss the content of the discussion draft. The FAA can only address completed audits and based on the 2011 actions stated above, it is still too early for FAA to comment on a specific course of action for this challenge. The FAA expects the OIG to provide the FAA with their final draft later in 2012 and at which time the FAA will be able respond and provide expected results and timelines.</p>		

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Issue 2E:	<u>Implementing airline safety and FAA Extension Act of 2010 requirements</u> Since the fatal crash of Colgan Air flight 3407 in 2009, the Federal Aviation Administration (FAA), Congress, and air carriers have recognized the need for safety initiatives in pilot fatigue, training, and professionalism. These initiatives, while ongoing, were not completed during FAA's Call to Action on Airline Safety and Pilot Training and subsequently became requirements under the Airline Safety and FAA Extension Act of 2010. Effectively implementing these requirements in a timely manner is critical to enhancing safety for the traveling public.	
ACTION PLAN		
Cognizant Organization:	Flight Standards Service (AFS) and the Office of Accident, Investigation, and Prevention (AVP)	
Tools to be Used to Resolve the Issue:	An OIG audit was started on June 13, 2011 on this subject. This audit is ongoing and the FAA is presently working with the OIG on this audit. We cannot identify specific actions to resolve issues until this audit is concluded.	
Time Needed to Resolve the Issue:	** pending audit **	
Specific steps to be taken in FY 2012:	** pending audit **	** pending audit **
Expected Results, this year and in the future:	This management challenge involves an ongoing audit. Based on a similar situation with a 2011 management challenge, it is too early for FAA to comment on a specific course of action since this audit is still ongoing and the FAA can only address completed audits.	

MANAGEMENT CHALLENGE	
Chapter 4: Ensuring Effective Oversight of ARRA Projects and Applying Related Lessons Learned To Improve DOT's Infrastructure Programs	
Issue 4B:	<p><u>Strengthening financial oversight of grantees through Single Audits and detecting improper payments</u></p> <p>The Inspector General has reported that the approach to AIP grant oversight is inadequate despite corrective actions previously taken. Management's attention is continually needed to ensure that accurate decisions are made regarding Single Audit findings and that an appropriate tracking system is in place in order to effectively prevent or detect improper payments.</p>
ACTION PLAN	
Cognizant Organization:	Office of Airports (ARP;APP/ACO)
Tools to be Used to Resolve the Issue:	<p><u>Single Audit Initiatives:</u></p> <p>ARP currently tracks incoming OIG findings and coordinates with Regional and field offices to assist in overall grant oversight and the reduction of improper payments.</p> <p>ARP received an A-123 Exception Memo, which noted that none of the regional offices provided supporting documentation evidencing the fact that they properly tracked grant disbursements to identify grantees with single audit requirements. In response to the exception memo, ARP initiated a sampling of airport sponsors that expended \$500,000 or more a year in federal awards, to ensure that those sponsors filed in accordance with the provisions of the audit requirements.</p> <p>The above sampling will be incorporated into an existing annual internal regional review process. This process will enable ARP to determine the level of compliance with the Single Audit filing requirements.</p> <p>ARP's field offices will send annual reminder letters to airport sponsors required to file a Single Audit. In brief the letter will state, as a grantee receiving more than \$500,000 in AIP funds they are legally required to complete an annual audit in accordance with OMB Circular A-133. The audit report is due by the earlier date of either 30 days after receipt of the report or nine months after the end of the fiscal year date and that the report should be submitted electronically to the Federal Audit Clearinghouse.</p> <p>ARP will respond to the OIG inquiries about single audit findings and coordinate with the grantee during the resolution process. To ensure the FAA maintains a complete record of the resolution process, it will (1) improve its tracking of single audit findings, (2) evaluate corrective actions, (3) maintain a complete record of its management decisions, and (4) confirm the grantee has implemented its promised actions. A spreadsheet will be developed in one centralized location where all of the regions are able to track Single Audits.</p> <p><u>Organizational Team</u></p> <p>The ARP Internal Organization Team is continuing to develop a field office staffing model and plan for standardizing field operations. Operating procedures will incorporate national risk management models across all program areas to include planning, environmental, engineering, financial, compliance, and airspace. The risk management model will encompass tools</p>

	<p>needed to provide grant oversight and accountability.</p> <p><u>Airport Improvement Program Handbook:</u> The AIP handbook will include updates to the grant oversight risk model and policy. Both items will provide a more robust and targeted grant oversight policy, which will include appropriate initials/signatures at critical junctions in the review process.</p> <p><u>Risk Model:</u> ARP is revising its grant oversight risk model to provide an updated, more robust method for evaluating airport sponsor risk for managing AIP grants and funding. The risk model will allow ARP to focus its grant oversight on those sponsors that pose the highest risk for potential improper payments.</p> <p><u>Price Cost Analysis Guidance:</u> As recommended by the OIG, ARP recently updated its guidance to field offices and airport sponsors regarding the completion of a price cost analysis for AIP procurements. This guidance clarifies the elements of a price or cost analysis and becomes part of the basis for future project payments</p>	
Time Needed to Resolve the Issue:	ARP anticipates continued work throughout FY 2012 to meet existing reporting requirements and mission priorities.	
Specific steps to be taken in FY 2012:	Single Audit filing Sampling Tracking System Reminder Letters AIP Handbook Update Risk Model Update Price Cost Analysis Guidance	September 2012 September 2012 August 2012 Work in progress (first 4 chapters December 2012) September 2012 January 2012
Expected Results, this year and in the future:	<p>ARP will continue to more sharply focus on the highest value activities, including grant management and oversight through a more robust risk model. An updated AIP handbook and specific guidance related to price cost analysis will provide the FAA field offices with guidance for sponsor oversight.</p> <p>The FAA will increase its tracking of single audit filing and tracking of findings resolution to more effectively use the single audit process to identify sponsor internal control issues that could lead to improper payments.</p>	

MANAGEMENT CHALLENGE		
Chapter 4: Ensuring Effective Oversight of ARRA Projects and Applying Related Lessons Learned To Improve DOT's Infrastructure Programs		
Issue 4D:	<p><u>Preventing and detecting transportation fraud through proactive measures</u></p> <p>The Department must ensure adequate oversight and accountability to meet ARRA goals. Additionally, management attention is needed to protect ARRA funds from fraud, waste, and abuse.</p>	
ACTION PLAN		
Cognizant Organization:	Office of Airports (ARP)	
Tools to be Used to Resolve the Issue:	<p><u>Risk Model</u> ARP is revising its grant oversight risk model to provide an updated, more robust method for evaluating airport sponsor risk for managing AIP grants and funding. The risk model will allow ARP to focus its grant oversight on those sponsors that pose the highest risk for potential improper payments.</p> <p><u>Price Cost Analysis Guidance</u> As recommended by the OIG, ARP recently updated its guidance to field offices and airport sponsors regarding the completion of a price cost analysis for AIP procurements. This guidance clarifies the elements of a price or cost analysis and becomes part of the basis for future project payments</p> <p><u>Airport Improvement Program Handbook</u> The AIP handbook will include updates to the grant oversight risk model and policy. Both items will provide a more robust and targeted grant oversight policy, which will include appropriate initials/signatures at critical junctions in the review process. Guidance on procurement and procedures will also be updated within the handbook.</p> <p>For outreach and educational purposes, ARP will inform the regional field offices of the need to be more proactive in protecting the agency against fraud, waste and abuse at the Recurrent Training conference this fiscal year. We will also include the FAA Stakeholder Guidance, "Red Flag" Indicators for Common Fraud Schemes and How to Report suspected Fraud.</p>	
Time Needed to Resolve the Issue:	ARP anticipates continued work throughout FY12 and beyond to ensure adequate accountability.	
Specific steps to be taken in FY 2012:	Outreach/education	AIP recurrent training April 2012
	Establish a new risk model	September 2012
	Update Price Cost Analysis Guidance	January 2012
	AIP Handbook Update	Work in progress (first 4 chapters December 2012)

Expected Results, this year and in the future:	This year, the field offices will receive education on fraud factors that have become prevalent in this line of business. The analysts in the field offices will also receive updated procurement guidance and information on tools that can be used to enable them to focus on high risk sponsors. These practices will be ongoing as needed and will aide in identifying and deterring fraud, waste and abuse in the future.
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MANAGEMENT CHALLENGE					
Chapter 5: Managing the Next Generation Air Transportation System Advancement While Controlling Costs					
Issue 5A:	<p><u>Setting realistic plans, budgets, and expectations for NextGen in a fiscally constrained environment</u></p> <p>The Department and FAA have struggled with defining NextGen and setting realistic expectations for what can be accomplished in the near, mid-, and long term.</p> <p>The current constrained budget and problems with existing projects are forcing the FAA to rethink the capital investments and NextGen priorities. Therefore, FAA will face challenges in sustaining existing projects and facilities while introducing new NextGen-related capabilities.</p> <p>FAA has yet to make critical decisions regarding (1) what new capabilities will reside in aircraft or in FAA's ground-based automation systems, (2) the level of automation for controllers that can realistically and safely be achieved, and (3) the number and locations of air traffic facilities needed to support NextGen. Finally, the FAA has not identified clear goals for performance capabilities or metric for NextGen initiative.</p>				
ACTION PLAN					
Cognizant Organization:	Associate Administrator for NextGen (NAS Lifecycle Integration, Advanced Concepts & Technology Development, NextGen Performance & Outreach) & Air Traffic Organization (NextGen Future Facilities program Office)				
Tools to be Used to Resolve the Issue:	NextGen Segment Implementation Plan (NSIP) Alpha; NSIP Bravo				
Time Needed to Resolve the Issue:	The items addressed in this action plan are expected to be completed over a period of several years, many of them in FY 2012.				
Specific steps to be taken in FY 2012:	<p><u>New capabilities residing in aircraft or ground based automation systems</u></p> <p>NextGen implementation plans for both aircraft and ground-based automation systems are described in the NextGen Segment Implementation Plan – Alpha through the 2015 timeframe and a high-level plan exists for the 2015-2018 timeframe as part of the NextGen Segment Implementation Plan – Bravo. These plans are captured in the National Airspace System (NAS) Enterprise Architecture and are actively updated to reflect changing out-year budgets.</p> <table border="0" style="width: 100%;"> <tr> <td style="width: 70%;">NSIP Version 4.0</td> <td style="width: 30%; text-align: center;">Complete</td> </tr> <tr> <td>NSIP Version 5.0 Initial Draft</td> <td style="text-align: center;">December 2012</td> </tr> </table>	NSIP Version 4.0	Complete	NSIP Version 5.0 Initial Draft	December 2012
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	<p>Level of automation for Controllers The level of automation for controllers is being addressed through on-going human factors research, and through development work being supported by external research communities.</p> <p>We are currently performing a strategic training needs analysis. This will help the training organization to prepare for NextGen changes in several ways. It will identify new skills required to implement NextGen changes. The level of automation that can realistically be achieved will be bounded by our ability to train the work force to use the automation as the means to deliver the new capabilities.</p> <p>We are working closely with the safety organization by performing analyses of potential hazards associated with human performance in the NextGen mid-term. This proactive approach will help the ATO in risk management as new automation is introduced. Safety of the NAS is a primary factor in our human factors program. As new capabilities are considered we are contributing the human performance portion of the safety picture.</p> <p>Realistic achievement of the introduction of automation will be a function of our ability to integrate all the new functions and capabilities for the mid-term. We have been generating requirements for integrated work stations for the mid-term. We seek to avoid a piecemeal approach to the introduction of automation. In future years (FY13 and beyond) we plan to conduct exploratory simulations to determine how to best integrate the envisioned level of automation and reduce risk by exploring the level of service that can be achieved given the introduction of automation.</p> <p>Our planned simulations will collect human performance data that will help us generate a realistic picture of how controller service will improve as a result of the introduction of automation.</p> <p>Future Facilities The FAA is required by the recently signed authorization act - "FAA Modernization and Reform Act of 2012" - to develop a report to Congress within 120 day of passage to be known as the National Facilities Realignment and Consolidation Report. The report is to</p>	<p>July 2012</p> <p>September 2012</p> <p>Ongoing</p> <p>Ongoing</p>
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	<p>make recommendations on the re-alignment and consolidation of services and facilities.</p> <p>Development of the report will enable the FAA to determine the number and locations of air traffic control and other facilities needed to support future NextGen operations.</p> <p><u>Developing NextGen Metrics</u> Per recommendations and guidance from RTCA's NextGen Mid-Term Implementation Task Force, the Government Accountability Office and others, FAA recognizes that it is imperative for both government and industry to participate in defining what NextGen success looks like and how we will know that we have achieved it.</p> <p>To that end, the FAA requested RTCA to create a new work group under the NextGen Advisory Committee (NAC) to collaborate with FAA on establishing high-level performance measures. The NAC delivered recommendations to the FAA on September 30, 2011.</p> <p>An internal cross-agency working group reviewed the NAC's recommendations and an agreed-upon set of NextGen Performance Metrics were approved by the NextGen Management Board on November 28, 2011. Portions of the metrics were characterized as "established," meaning that FAA and industry have a common understanding of the metrics and FAA has the necessary data to use them. Other metrics were characterized as provisional or conceptual, meaning FAA and Industry would need to better define the scope of the metric and necessary data sources before the metrics could be employed. The FAA expects to receive further recommendations from the NAC on these metrics in 2012.</p> <p>The NextGen Performance & Outreach office is currently developing a web-based NextGen Performance Snapshot based on this work. This tool will be initially released in March 2012 and will provide the following:</p> <ul style="list-style-type: none"> • NextGen post-implementation performance picture from NextGen initiatives • Metrics approved by FAA NextGen Management Board. 	<p>May 2012</p> <p>Ongoing</p> <p>November 2011</p> <p>March 2012</p>
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	<ul style="list-style-type: none"> • Performance progress resulting from NextGen activities at selected locations. <p>The NextGen Implementation Plan is the FAA's primary outreach document for updating the aviation community on the progress made while providing a summary overview of our future plan. The Plan will be released in March 2012. Appendix B of the Plan identifies selected work activities detailed fully in the NextGen Segment Implementation Plan in support of delivering operational improvements through the mid-term.</p>	<p>March 2012</p>
<p>Expected Results, this year and in the future:</p>	<p>The NextGen Implementation Plan will help stakeholders understand the activities underway that lead to the implementation of NextGen operational improvements. The NextGen Performance Snapshots will show stakeholders the operational impact of those NextGen improvements that have already been introduced. The agency will continue to update both sets of information over time.</p>	

MANAGEMENT CHALLENGE

Chapter 5: Managing the Next Generation Air Transportation System Advancement While Controlling Costs

Issue 5B:	<p><u>Advancing NextGen's near-term goals and realizing benefits at already congested airports</u></p> <p>FAA has not established detailed milestones to complete initiatives at high-activity locations or a mechanism to integrate its metroplex initiative with other important initiatives, such as improving airport surface operations.</p> <p>FAA's plans do not focus on the more advanced required navigation performance (RNP) procedures to achieve maximum capacity enhancements.</p>
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ACTION PLAN

Cognizant Organization:	Group Manager, Airspace Optimization (AJV-16)
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Tools to be Used to Resolve the Issue:	<p><u>Optimization of Airspace and Procedures in the Metroplex</u></p> <p>The Optimization of Airspace and Procedures in the Metroplex (OAPM) program office added trained, experienced program management staff and contract support in 2011. At the time the DOT IG Report was delivered (November 2011) the OAPM program was in development of a new program schedule to reflect other ongoing efforts and more effective utilization of program resources. With resolution of those issues, the new schedule was finalized late in 2011.</p> <p>The OAPM program office utilizes state-of-the art procedures development tools and employs highly experienced performance-based navigation (PBN) and RNP experts on the Study and Design teams.</p>
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Time Needed to Resolve the Issue:	<p>The schedule issue has been resolved. The OAPM program office has completed a detailed Operations Plan and development of schedules, with specific project milestones for identified metroplexes. Information from OAPM Studies and Designs are made available to other FAA lines of business, including Surface.</p> <p>The RNP issue has also been resolved. The OAPM program emphasizes developing procedures that achieve optimized efficiency benefits, such as shorter flight paths and fuel savings. OAPM is focused on "RNAV everywhere, RNP where beneficial," and RNP approaches are being developed where they provided specific benefits, such as in North Texas and Houston.</p>
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Specific steps to be taken in FY 2012:	<p>The steps listed below reflect program activities underway for FY2012. Note the management challenge issue has been resolved.</p> <p><u>Design</u> Complete Design phase for 3 metroplexes (including RNP procedures) Q3 2012</p> <p><u>Study</u> Complete Study phase for 1 metroplex (including potential RNP procedures) Q4 2012</p> <p><u>Evaluation</u> Begin Evaluation phase for 3 metroplexes (including RNP procedures) Q3 2012</p>
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<p>Expected Results, this year and in the future:</p>	<p>By the end of Q4, FY 2012, the collaboration of FAA and Industry OAPM team members will result in the design of new and enhanced PBN procedures several major metropolitan areas. The collaborative nature of the teams working the Design and Evaluation phases provides transparency to stakeholders, such as airspace users, clearly defining expected benefits and clarifying the timelines and execution of the OAPM effort. The bulk of the solutions proposed as part of OAPM are not overlays of existing conventional procedures, and while there are many benefits attributed to proposed improvements in vertical profiles, there are also efficiency gains related to lateral path improvements. These procedures and associate airspace changes will enable significant fuel savings and reduce sector complexity. User benefits are estimated to be between 6 and 26 million dollars annually at each of the Metroplex sites studied so far, primarily from fuel savings for industry stakeholders due to more beneficial and efficient arrival and departure procedures.</p> <p>Regarding RNP, by the end of Q4, FY 2012, the collaboration of FAA and Industry OAPM team members will result in the design, and subsequent implementation, of new and enhanced PBN procedures in several major metropolitan areas. The bulk of the solutions proposed in these areas are not overlays of existing conventional procedures, and while there are many benefits attributed to proposed improvements in vertical profiles, there are also efficiency gains related to lateral path improvements. The RNP procedures are included in the savings above.</p>
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MANAGEMENT CHALLENGE		
Chapter 5: Managing the Next Generation Air Transportation System Advancement While Controlling Costs		
Issue 5C:	<p><u>Resolving problems with the En Route Automation Modernization (ERAM) program that have cost and schedule implications for critical NextGen initiatives</u></p> <p>Originally planned for completion in 2010, the En Route Automation Modernization (ERAM) program has experienced delays due to software-related problems. These problems have had a significant impact on the overall schedule and program budget. The ERAM program is working to resolve these issues as cost and schedule challenges have an impact on maintenance of legacy systems and associated resources, workforce training requirements, other Next Gen program schedules.</p>	
ACTION PLAN		
Cognizant Organization:	Air Traffic Organization (ATO): Program Management Office (PMO) Air Traffic Systems Organization - AJM	
Tools to be Used to Resolve the Issue:	<p>In order to resolve the issues cited in the report, the program office will employ the following tools:</p> <ul style="list-style-type: none"> • System architecture reviews for a) Common Mode Failure or similar issues, b) sustainment of the ERAM Back-Up System (EBUS), and c) an Independent Verification and Validation (IV&V) project. • Improved software build packaging and system lifecycle test processes • Automated Information Management System (AIMS) Issues analysis streamlining initiative • New quantitative and qualitative metrics that can be used to assess overall system health as well as track performance over time • Continued collaboration with key National Air Traffic Controller Association (NATCA) and Professional Aviation Safety Specialist (PASS) unions • Improved design quality through the use of the ERAM National User Team • Strengthening performance incentives and quality controls in the renegotiated prime vendor contract • Revised Earned-Value Management (EVM) to include both FAA and contractor performance 	
Time Needed to Resolve the Issue:	<p>As it relates to the issues cited in the report, the program office has introduced new processes and personnel to ensure the baselined schedule and budget can be appropriately managed, thereby maintaining the schedule of other programs in varied stages of delivery that rely on integrating with ERAM (from early concept development to JRC-approved baselines). The activities that will be undertaken to resolve the issues identified in the report will be implemented throughout FY 2012 and FY2013, with specific dates and deliverables outlined later in this document.</p>	
Specific steps to be taken in FY 2012:	<p><u>System architecture reviews for a) Common Mode Failure or similar issues, b) sustainment of the ERAM Back-Up System (EBUS), and c) an Independent Verification and Validation (IV&V) project.</u></p> <p>The program office will be implementing a series of</p>	Q4 CY 2012

	<p>deep-dive architecture reviews of the system, some to be conducted by the prime contractor and some to involve a 3rd party review. This work will focus on areas of system stability, reliability, and interoperability with other NextGen systems. Recommendations will be reviewed and implemented as-needed based on recommendations of program leadership and availability of resources within the program baseline. Deliverables will include:</p> <ul style="list-style-type: none"> - An action plan with suggested implementation milestones for each of the reviews listed above. <p><u>Improved software build packaging and system lifecycle test processes.</u></p> <p>The program office will improve processes and standards for packaging builds a) using a newly formed National Packaging Team (NPT), b) to provide more transparent and timely communication to facilities about build content and c) to enhance collaboration across program stakeholders as part of the packaging process. Deliverables will include:</p> <ul style="list-style-type: none"> - Charter for the NPT. - Updated standard operating procedures for build content recommendation, approval, and communication processes. <p><u>AIMS Issues Analysis Streamlining Initiative</u></p> <p>The AIMS system is used by all Air Route Traffic Control Centers (ARTCC) facilities to capture operational issues observed with ERAM. The current process for intake, analysis, and disposition of those issues is resource-intensive. The program office has initiated an effort to identify opportunities for removing waste and improving quality within that process. Deliverables will include:</p> <ul style="list-style-type: none"> - Action plan with milestones for implementing improvement recommendations. <p><u>New quantitative and qualitative metrics that can be used to assess overall system health as well as track performance over time</u></p> <p>This work will address understanding both the degree to which the ERAM system is meeting the specified requirements, the degree to which it is supporting core functionality needs, and the rate of defects observed. The program office anticipates limitations in what can be quantitatively measured, however this measurement approach could be extended to include both monitoring of operational performance based on qualitative feedback from facilities. Deliverables include:</p> <ul style="list-style-type: none"> - Performance Measurement Plan, with the suggested metrics, significance, and measurement approach for each defined. 	<p>Q2 CY2012</p> <p>Q2 CY2012</p> <p>Q2 CY2012</p>
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	<p><u>Continued collaboration with key National Air Traffic Controller Association (NATCA) and Professional Aviation Safety Specialist (PASS) unions</u></p> <p>The ERAM program has developed a standing work group within the construct of the contract between the FAA and NATCA, as well as PASS, to collaborate on program strategy, software content, site implementation needs, and a range of other activities. This improves transparency and communication for developing buy-in to the program, and has enhanced the ability of the program to successfully achieve key programmatic milestones. Deliverables include:</p> <ul style="list-style-type: none"> - Meeting minutes from the conduct of Article 48/11 work group meetings. <p><u>Improved design quality through the use of the ERAM National User Team</u></p> <p>The ERAM program has created, and will continue to mature, a National User Team (NUT). The NUT is a cross-section of facility representatives (i.e. end-users) that develop operational requirements for new software functions, thus improving the operational suitability of software before it is delivered to the field. Deliverables include:</p> <ul style="list-style-type: none"> - Operational Use Case documents for requirement changes. - NUT Charter. <p><u>Strengthening performance incentives and quality controls in the renegotiated prime vendor contract</u></p> <p>The ERAM program is in the process of renegotiating the ERAM contract with the prime vendor for FY12 effort and beyond. This renegotiation, which remains in process, includes a reexamination of multiple components including, but not necessarily limited to:</p> <ul style="list-style-type: none"> • Contractor incentive structure(s), • Relationship between software milestones and the triggering of those incentive(s), and • Agency controls to strengthen processes around software acceptance. <p>Deliverables of this work include:</p> <ul style="list-style-type: none"> - Renegotiated, activated contract. <p><u>Revised Earned-Value Management (EVM) to include both FAA and contractor performance</u></p> <p>As a means of proactively managing cost and schedule performance, the ERAM program is expanding its existing EVM approach to be a program-wide performance reporting tool rather than solely focusing on the prime vendor activities. This will improve the ability of the program to comprehensively assess cost and schedule performance. Deliverables of this work will include:</p> <ul style="list-style-type: none"> - Periodic earned-value reports for Program Office Management. 	<p>(ongoing)</p> <p>(ongoing)</p> <p>Q2 CY2012</p> <p>Q2 CY2012</p>
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<p>Expected Results, this year and in the future:</p>	<p>Based on the approach outlined above, the ERAM program is expecting to see improvements in schedule and cost performance, thus addressing the issues raised in the report. The program should also see a decline in software/technology related issues given the strengthened controls and end-user involvement throughout the system development lifecycle. In the future, these improvements will also minimize risk of any negative impact on NextGen.</p>
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MANAGEMENT CHALLENGE

Chapter 5: Managing the Next Generation Air Transportation System Advancement While Controlling Costs

Issue 5D:	<p><u>Completing an integrated master schedule for NextGen's transformational programs</u></p> <p>The FAA has not yet developed an integrated master schedule for implementing NextGen Transformational Programs, or established total program costs, schedules or performance baselines. Decision makers in Congress and the Department lack sufficient information to assess progress as requirements evolve. Without a master schedule the FAA will continue to be challenged to assess progress with NextGen efforts, establish priorities, and make necessary trade-offs between programs.</p>
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ACTION PLAN

Cognizant Organization:	NAS Lifecycle Planning Division, ANG-D2
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Tools to be Used to Resolve the Issue:	<p><u>NextGen Segment Implementation Plan (NSIP) – Segment Alpha (now -2015)</u></p> <p>The NSIP, version 4.0, was recently approved by the NextGen Management Board. The NSIP serves as the Integrated Program Plan for implementation of the segment. This NSIP Portfolios are:</p> <ul style="list-style-type: none"><i>Collaborative Air Traffic Management</i><i>Improved Surface Operations</i><i>Time-Based Flow Management</i><i>Improved Multiple Runway Operations</i><i>Improved Approaches and Low-Visibility Operations</i><i>Performance-Based Navigation</i><i>On-Demand NAS Information</i><i>Separation Management</i><i>Common Services</i><i>Environment and Energy</i><i>System Safety Management</i><i>Policy</i> <p><u>NextGen Integrated Master Schedule (IMS)</u></p> <p>The NextGen Integrated Master Schedule is a tool designed to capture and track progress of schedule activities for the Segment Alpha Portfolios. In addition the IMS also captures Pre-Implementation (Solution Set) activities which provide information on the progress of activities planned for Segment Bravo and beyond. The IMS will be expanded to dependencies between Operational Improvement (OI) increments and Programs for the Segment Alpha. Following the completion of Segment Bravo, the IMS will be expanded to show the dependencies through 2018.</p> <p><u>NSIP Portfolio Management Reviews and Senior Leadership Reporting</u></p> <p>Portfolio Management Review (PfMR) Teams have been established to review the progress of each portfolio on a quarterly basis. The PfMRs serve as a cross agency forum to review each element of the portfolio, and document accomplishment, identify challenges and mitigation strategies. The information from the PfMRs serves as the basic for cross agency information sharing and reporting to the NextGen Management Board.</p>
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	<p>Status reports are provided to the NextGen Management Board (NMB) quarterly.</p> <p><u>NextGen Segment Implementation Plan (NSIP) - Bravo</u> The FAA is in the process of maturing Segment Bravo which will extend the NSIP and the IMS through 2018.</p> <p><u>NextGen Implementation Plan</u> The FAA publishes the NextGen Implementation Plan annually. Appendix B of the plan, entitled <i>Delivering NextGen</i>, contains schedule and programmatic information about the NSIP Portfolios (referred to in the document as Implementation Portfolios). The FAA will update this 2013 version of this document to reflect the extended version of the NSIP.</p>	
Time Needed to Resolve the Issue:	<p><u>End of Calendar Year 2012</u> NSIP 5.0, Initial Draft will be complete in December of 2012. This version will include the Segment Bravo operational improvements and increments and the corresponding schedule of implementation activities. The IMS will be updated to reflect the updated NSIP. This will provide a schedule of activities for each of the NSIP portfolios showing dependencies on individual programs.</p>	
Specific steps to be taken in FY 2012:	<p><u>NextGen Segment Implementation Plan (NSIP) – Segment Alpha (now -2015)</u></p> <p>NSIP Version 4.0</p> <p>NSIP Version 5.0, Initial Draft Update the NSIP to include the OIs, increments and schedule information for implementation activities through 2018</p>	<p>December 2011</p> <p>NSIP Version 5.0, Initial Draft December 2012</p>
	<p><u>NextGen Integrated Master Schedule (IMS)</u></p>	<p>Update the NSIP to include the OIs, increments and schedule information for implementation activities through 2018</p>
	<p><u>NSIP Portfolio Management</u> Conduct Quarterly Portfolio Management Reviews for the NSIP Portfolios, including</p> <ul style="list-style-type: none"> - Status a review and update of the IMS - Status of key activities - Review of accomplishments - Identification of Challenges and mitigation strategies 	<p><u>Round Three - PfMR Schedule</u> Feb - Apr 2012</p> <p><u>Round Four -PfMR Schedule</u> May – July 2012 (tentative)</p> <p><u>Round Five - PfMR Schedule</u> Aug – Oct 2012 (tentative)</p>
	<p><u>NextGen Management Board</u> Approve NSIP 4.0</p> <p>Review progress quarterly of key NextGen initiatives</p>	<p>December 2011</p> <p>NextGen Management Board (NMB) Quarterly Status Report. Feb, Apr, Jun and Aug</p>

<p>Expected Results, this year and in the future:</p>	<p><u>2012</u> By the end of CY2012, the NSIP will be updated to provide an Integrated Program Plan for implementation activities through 2018 (initial draft). The FAA will expand the existing NSIP Portfolio schedule to show dependencies between OI increments and Programs. This information will serve as the IMS for NextGen thru 2018. The NSIP and the IMS will serve as the primary Enterprise Program Management Tools to manage the integration of NextGen initiatives.</p> <p><u>Outyears</u> The NSIP Portfolio Management Framework allows the FAA to maintain an Integrated Program Plan with a supporting Integrated Master Schedule that will enable assessment of progress on individual Program contributions to the Implementation Portfolios. These tools will support alignment of priorities against available funding and enable analysis to support trade-offs between Programs.</p>
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MANAGEMENT CHALLENGE	
Chapter 5: Managing the Next Generation Air Transportation System Advancement While Controlling Costs	
Issue 5E:	<p><u>Controlling operating costs that could crowd out NextGen capital investments</u></p> <p>In 2009, FAA entered into a three-year collective bargaining agreement with the National Air Traffic Controllers Association (NATCA). FAA estimated that the agreement with NATCA would cost the FAA \$669 million more than it would have cost to extend the 2006 contract for three more years. The 2009 contract also allows FAA and NATCA to negotiate local and regional memoranda of understanding (MOUs).</p> <p>For the first year of the contract (FY10), FAA’s pay and benefits costs were \$14 million higher than initially estimated. Also, OIG sited that FAA has had problems managing its MOUs in the past, resulting in millions of dollars in cost overruns. Based on these factors, OIG is concerned that the NATCA contract and related MOUs may result in higher than expected costs if established controls are not managed well.</p>
ACTION PLAN	
Cognizant Organization:	<p>Air Traffic Organization (ATO) Office of Labor Management Relations (AHL) Office of Labor Analysis (ALA)</p>
Tools to be Used to Resolve the Issue:	<p><u>Labor Cost Models</u></p> <p>To develop accurate labor cost forecasts, FAA has developed labor cost models that include a number of inputs related to future pay growth and population changes. OIG personally reviewed these models during their 2010-2011 review of the 2009 NATCA contract. FAA continues to calibrate these cost models based on relevant policy and population changes to ensure forecast accuracy. FAA’s forecast for FY10 reflected a very strong 99.5% accuracy (i.e., the variance of \$14M outlined above constituted only 0.5% of total pay and benefits costs).</p> <p><u>MOU Database</u></p> <p>When MOUs proliferated under the prior contract, FAA had no established processes for negotiating and approving MOUs, and no centralized database in which to track them. In order to address these issues, FAA developed a centralized, electronic MOU database that is part of FAA’s Labor and Employee Relations Information System (LERIS). The database is now fully operational and is owned and maintained by FAA’s Labor and Employee Relations organization. The database is primarily used to research and track MOUs and provides FAA the ability to analyze MOUs and identify budgetary impact and the local, regional, and national level.</p> <p><u>Training and Education</u></p> <p>FAA continues to provide briefings to labor relations personnel and line of business customers on proper procedures for entering into MOUs in the new database. Clear, concise instructions and guidance on procedures has also been reissued.</p> <p><u>Compliance Review</u></p> <p>FAA continues to review all MOUs in its database to ensure compliance with guidelines.</p>
Time Needed to Resolve the Issue:	FAA believes that the tools outlined above and the management processes that have been established currently enable FAA to sufficiently monitor and control costs related to the 2009 contract and related MOUs.

<p>Specific steps to be taken in FY 2012:</p>	<p>FAA recently compared its NATCA labor cost estimate for FY11 with actual FY11 pay and benefits costs. For FY11, FAA's forecast was 99.7% accurate (i.e., actual costs were only \$8M (0.3%) higher than estimated costs). FAA will continue to utilize its established models and analyses to update the payroll cost estimates annually.</p> <p>In addition, FAA continues to hold briefings and training for labor relations personnel to emphasize proper procedures for updating the MOU database. In addition, FAA will continue to hold briefings with personnel and line of business customers on proper procedures for entering into MOUs.</p>	<p>Ongoing</p>
<p>Expected Results, this year and in the future:</p>	<p>Through continued comprehensive analyses to estimate the financial impact of the 2009 collective bargaining agreement, and additional training on proper procedures for MOU negotiation and monitoring, FAA will ensure improved cost control, awareness, and MOU consistency.</p> <p>In addition, the modeling efforts, database, and related training that have been put in place will continue to be utilized after the expiration of the 2009 NATCA contract and for other labor groups as well, thereby ensuring an even broader level of cost control and awareness over the long term.</p> <p>FAA fully understands and appreciates the criticality of these issues, as unconstrained increases in operating costs could impact other operating and capital investments.</p>	

MANAGEMENT CHALLENGE	
Chapter 6: Managing DOT Acquisitions in a Smarter and More Strategic Manner To Maximize Limited Resources and Achieve Better Mission Results	
Issue 6B:	<p><u>Equipping DOT to perform effective management oversight of its acquisitions</u></p> <p>Oversight weaknesses compounded by poor acquisition data management systems hinder DOT's ability to strategically manage its contracts and contract spending; meet reporting and transparency requirements; and, ensure the billions of dollars it spends on contracting each year are used efficiently and effectively. Sustained focus on developing reliable information and data management systems will position DOT to conduct more strategic acquisitions.</p>
ACTION PLAN	
Cognizant Organization:	<p>Acquisition Policy & Oversight (AAP-1); Procurement Information & Services (AAP-120); National Acquisition Evaluation Program (AAP-400)</p>
Tools to be Used to Resolve the Issue:	<p><u>FPDS</u> FAA updated its Federal Procurement Data System (FPDS) user guide and the process for reviewing errors and exceptions in FY2011.</p> <ul style="list-style-type: none"> • The FPDS User Guide was updated to clarify the proper coding of business size and competition. • PRISM was updated to allow contracting personnel to run the FPDS Exception Report using their access versus submitting a request to a systems administrator, resulting in timely correction of FAA data. <p><u>Monthly Reports</u> Contracting office managers will receive monthly reports from the Procurement Information & Services Group detailing errors or exceptions in the acquisition data system requiring action.</p> <p><u>PRISM Training</u> FAA implemented online training for PRISM (FAA's procurement system) in FY2011 to reduce the number of errors in our acquisition data.</p> <p><u>Onsite Reviews</u> FAA's National Acquisition Evaluation Program (NAEP) will continue to conduct onsite reviews of contract awards and data entered into FAA's acquisition systems.</p> <p><u>COR Training</u> In conjunction with Federal Acquisition Institute (FAI), FAA is establishing initial Contracting Officer's Representative (COR) training emphasizing proper contract administration and invoice processing.</p> <p><u>Revision to Certification Levels and Competencies</u> FAA is revising COR certification levels and competencies to reflect mission and contract needs.</p>
Time Needed to Resolve the Issue:	<ul style="list-style-type: none"> • The Procurement Information & Services Group is already submitting error/exception reports to contracting offices. • The NAEP contract reviews will be performed from February 2012 to July 2012. • Level I online training will be deployed in February 2012, and

	Acquisition Management System (AMS) should be updated with new COR requirements by May 2012.	
Specific steps to be taken in FY 2012:	<p><u>Contracting Office Error and Exception Reports</u></p> <p><u>NAEP Contract Reviews</u> Headquarters (HQ) Systems Operations Group Central Region Southern Region Eastern Region Northwest Mountain Western-Pacific</p> <p><u>COR Level I Training</u></p> <p><u>Revision of COR certification requirement and levels</u></p>	<p>Monthly</p> <p>February 2012 March 2012 March 2012 April 2012 May 2012 June 2012</p> <p>March 2012</p> <p>May 2012</p>
Expected Results, this year and in the future:	Monthly exception reporting; continuous oversight by NAEP; and contract management; and, tailored PRISM/COR training will continue to improve the quality of FAA's acquisition data in FY2012.	

MANAGEMENT CHALLENGE		
Chapter 6: Managing DOT Acquisitions in a Smarter and More Strategic Manner To Maximize Limited Resources and Achieve Better Mission Results		
Issue 6C:	<p><u>Strengthening the acquisitions workforce to manage DOT's contracts for goods and services</u></p> <p>Modernizing the complex, highly sophisticated National Airspace System depends on FAA's acquisition workforce professionals and requires that they be of the highest caliber. FAA's 2011 acquisition workforce plan, which was not considered in the development of this management challenge, provides the blueprint for developing a high-performing acquisition workforce capable of successfully managing the FAA's major systems acquisitions. The 2011 plan emphasizes the need for and the specific steps being taken to develop the existing workforce, reflecting the realities of a Federal budget climate that constrains the agency's ability to hire additional resources. Looming retirements, competition for acquisition talent inside and outside of government, and the growing complexity of technology and related system requirements all contribute to the challenge of maintaining an adequately staffed, highly capable acquisition workforce.</p>	
ACTION PLAN		
Cognizant Organization:	Acquisition Policy & Oversight (AAP-1); Acquisition Career Management, AAP-300	
Tools to be Used to Resolve the Issue:	FAA's acquisition workforce plan, which is updated annually to reflect changes in workforce requirements, is the primary tool for identifying, implementing, and reporting the initiatives FAA is taking to address this management challenge. The plan describes the strategies currently being followed to improve hiring processes, create an integrated acquisition career development program, and institutionalize the acquisition workforce planning process.	
Time Needed to Resolve the Issue:	Developing a high caliber acquisition workforce is a continuous activity, as new employees and new requirements are introduced and incorporated. FAA is actively enhancing its career development program across 10 core acquisition professions. Improvements are being seen in the volume and quality of training courses, the number of employees trained, and the number of certifications conferred to acquisition professionals, particularly in the Program/Project Management, Contracting Officer/Specialist, and Contracting Officer's Technical Representative professions.	
Specific steps to be taken in FY 2012:	<p><u>Collect acquisition workforce staffing gains and losses</u></p> <p>Collect acquisition workforce staffing gains and losses to ensure an accurate count and profile of the workforce</p> <p><u>Develop and certify</u></p> <p>Develop and certify program managers and contracting officer/specialists consistent with established business goals</p>	<ul style="list-style-type: none"> • Monthly • September 30, 2012, measured monthly

	<p><u>Test & Evaluation</u> Initiate a pilot of the Test & Evaluation profession certification program</p> <p><u>Program/Project Mgmt.</u> Revalidate the Program/Project Management profession competency model and certification program</p>	<ul style="list-style-type: none"> • June 30, 2012 • June 30, 2012
<p>Expected Results, this year and in the future:</p>	<p>In 2012, FAA expects the following results:</p> <ul style="list-style-type: none"> • At least 95% of Acquisition Category (ACAT) 1 and 2 programs are managed by a level 3 certified program manager • At least 80% of ACAT 3,4 and 5 programs are managed by a level 2 certified program manager • 80% of entry level contracting officer/specialists have achieved Level I certification within 15 months of hire 	

MANAGEMENT CHALLENGE		
Chapter 7: Improving the Department's Cyber Security		
Issue 7B:	<p><u>Strengthening air traffic control system protections</u> FAA's planned Next Generation Air Transportation System (NextGen) relies on a number of new technologies to achieve its goals. NextGen relies on the use of Internet Protocol-based commercial products and web applications, which are inherently more vulnerable to security risks than proprietary software. FAA is also outsourcing more of its operations to contractors. Because FAA only owns the data, not the system, it may have little control over security challenges that could arise.</p>	
ACTION PLAN		
Cognizant Organization:	Air Traffic Organization, Technical Operations	
Tools to be Used to Resolve the Issue:	<ul style="list-style-type: none"> • <u>FAA Security Orders</u> – provide governance to support implementation of security controls for both FAA owned and contractor provided National Airspace System (NAS) systems/services. • <u>NAS Enterprise Security Gateway (NESG)</u> – provides enterprise secure boundary protection services for the NAS that will be integrated into NextGen system development. • <u>FAA Telecommunications Infrastructure (FTI) NAS Intrusion Detection Sensors and ArcSight Monitor</u> – provides enterprise NAS network cyber detection and monitoring capabilities that will be integrated with NAS Cyber Operations (NCO) cyber monitoring to provide complete cyber situational awareness for the NAS. 	
Time Needed to Resolve the Issue:	September 30, 2012	
Specific steps to be taken in FY 2012:	<p><u>Formal Security Policy</u> Establish a formal security policy for NextGen outsourced NAS systems/services through release of FAA Order 1370.114, "Implementation of FAA Telecommunications Infrastructure Services and Information Security Requirements in the NAS," which defines security control requirements for both FAA owned data and contractor owned systems.</p> <p><u>Layered NAS Security Architecture</u> Develop a layered NAS security architecture to provide protection, detection, and response for NAS,</p>	<p>January 31, 2012</p> <p>September 30, 2012</p>

	<p>Internet Protocol (IP)-based services and systems.</p> <ul style="list-style-type: none"> a. Layer 1: Integrate NAS, Enterprise Security Gateway (NESG) requirements into all NextGen systems. b. Layer 2: Integrate FTI, NAS Intrusion Detection System (IDS) situational awareness into NAS Cyber Operations (NCO) at the Air Traffic Control System Command Center (ATCSCC). c. Layer 3: Develop governance to establish an anomaly based approach to real-time cyber event detection and response for NAS IP based systems through formal draft release of FAA Order 1370.101A. 	<p>July 15, 2012</p> <p>September 30, 2012</p> <p>September 30, 2012</p>
<p>Expected Results, this year and in the future:</p>	<p>The FAA will have a set of enforceable security requirements for non-FAA owned NAS services/systems that will allow the FAA to control the security of both the FAA owned data and the contractor owned system configuration.</p> <p>The FAA will have a layered security architecture that will provide defense-in-depth protection against IP and web-based security threats.</p>	