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Progress and Challenges With FAA's Call to Action for Airline Safety

Statement of
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Mr. Chairman, Ranking Member Petri, and Members of the Subcommittee:

We appreciate the opportunity to testify today on the status of the Federal Aviation Administration's (FAA) Airline Safety and Pilot Training Action Plan (Call to Action Plan) to improve airline safety and pilot training industry-wide. FAA announced its plan after hearings regarding the Colgan Air accident last February. While the Colgan crash has not called into question the overall safety of air travel, the hearings highlighted differences between mainline and regional air carriers' operations and safety records—a significant concern as regional carriers have been involved in the last six fatal, commercial accidents. The FAA's Call to Action plan focuses on reducing risks at air carriers; promoting best practices from mainline to regional carriers; and seeking industry compliance with safety initiatives involving pilot training, fatigue management, and pilot professionalism. Today, I would like to discuss three areas: (1) FAA's progress in implementing Call to Action initiatives, (2) FAA's role in strengthening air carriers' voluntary safety efforts, and (3) other critical pilot safety issues that emerged after the Colgan accident.

IN SUMMARY

Under the FAA Administrator's leadership, FAA took swift action by creating the Call to Action plan to refocus and accelerate industry efforts to address pilot workforce issues and strengthen voluntary safety programs. However, progress has been limited in implementing initiatives with the greatest potential to improve safety, such as issuing new rules governing crew rest and training. FAA also has not followed up to ensure air carriers' Call to Action commitments effectively meet planned safety goals. Finally, other critical issues emerged after the Colgan accident that remain unaddressed, such as potential correlations between aviation accidents and pilot experience and compensation. We have ongoing work on these issues and will keep this Subcommittee apprised of our findings.

BACKGROUND

Human factors impacting pilot performance have been on the National Transportation Safety Board's (NTSB) list of needed safety improvements for the last 20 years.[1] For example, according to the NTSB, fatigue has been associated with air carrier accidents resulting in 250 fatalities over the last 16 years. Although the NTSB has identified this issue as an area of concern for all air carriers, it is particularly critical at regional carriers. The NTSB has cited pilot performance or fatigue as potential factors in four of the last six fatal Part 121[2] accidents involving regional carriers—including the crash of Colgan flight 3407 on February 12, 2009, that resulted in 50 fatalities.

[1] The NTSB's Most Wanted List of Transportation Safety Improvements, created in 1990.

[2] 14 CFR § 121, Operating Requirements: Domestic, Flag, and Supplemental Operations. These carriers operate larger aircraft with primarily scheduled flights.

FAA's Call to Action Plan, announced on June 24, 2009, consists of 10 short- and mid-term initiatives to enhance pilot performance and training, increase air carrier participation in voluntary safety programs, and expand pilot records review. FAA also set goals to develop new safety oversight guidance to its inspectors, issue rulemakings on pilot fatigue and training, conduct regional safety forums to discuss industry best practices, and develop programs addressing pilot professionalism. (See exhibit for table showing all 10 initiatives, their key goals, and Office of Inspector General analysis of their status.)

FAA'S PROGRESS IN IMPLEMENTING CALL TO ACTION INITIATIVES HAS BEEN MIXED

Last week, FAA issued a report on the status of the implementation of its Call to Action plan, which concluded that FAA is on track to successfully meet the Plan's milestones. While FAA has taken action on some of the initiatives over the last 7 months, such as holding regional safety forums, 8 of the 10 initiatives are either falling behind schedule or not meeting intended goals.[3] Of key concern are the missed milestones related to safety areas raised by NTSB and congressional hearings after the Colgan accident. Specifically, FAA has delayed issuing new rulemakings on crew rest and training requirements and establishing a program to improve pilot professionalism. Additionally, FAA's special inspections of air carrier pilot training programs were not effectively implemented, and FAA has not issued new safety oversight guidance to field offices.

FAA Has Not Implemented Key Rulemakings on New Crew Fatigue and Training Requirements

A key element in FAA's Call to Action plan is to issue new rules on crew rest requirements. The regulations, originally written in 1937, were last modified in 1985. According to numerous stakeholders, they are outdated, difficult to understand, and not scientifically based. Repeated attempts to revise the regulations have failed due to disagreements among FAA, airlines, and aviation trade associations. As part of the Call to Action in July 2009, FAA established a rulemaking committee to once again address the existing rules and make recommendations for revising them. The committee made substantial progress and met its September 2009 deadline to deliver a final report to FAA.

FAA planned to issue the Notice of Proposed Rulemaking (NPRM) by December 2009 but failed to meet that milestone. FAA now intends to issue the NPRM later this spring. However, there will be an extensive comment period after issuance, and in the past, these comments have led to significant debate. In 1995, FAA made a similar attempt to change rest requirements but had to withdraw the NPRM due to overwhelming industry opposition. While maintaining momentum on this initiative is

[3] While FAA missed the original deadline for another initiative, it has since been completed.

critical to the success of the Call to Action, FAA must ensure the new rule is comprehensive enough to adequately address pilot fatigue safety issues.

FAA is facing similar issues with its NPRM to revise crew training requirements. The proposed rule would establish new requirements for traditional air carrier safety training programs. For example, it would require training in a complete flight crew environment, flight simulator devices, and new special hazard practices for pilots and crew members. It would also require new practices in Crew Resource Management.[4] The rule would also simplify and modernize regulations associated with qualifications and training for aircraft dispatchers and crew. FAA issued the NPRM on January 12, 2009—6 months prior to FAA's Call to Action Plan. A year later, however, FAA still has not finalized the rule even though this was established as a goal in the Call to Action Plan. FAA received over 3,000 pages of comments on its training NPRM and has now determined that it will be necessary to develop a supplemental NPRM to address these concerns. FAA intends to issue the NPRM later this spring.

FAA's Special Inspections of Air Carrier Training Programs Were Ineffectively Designed and Implemented

Recognizing the urgency of proposals in the Call to Action, the FAA Administrator ordered inspectors to conduct a focused two-phase review of air carriers' flight crew training, qualifications, and management of training programs.

- **Phase 1:** By July 15, 2009, inspectors were to meet with the carriers' directors of operations, directors of safety, and company officials responsible for flight crewmember training and qualification programs. The purpose of these meetings was to determine if air carriers had implemented a previous FAA recommendation to track and manage crew members who have limited experience (low-time pilot), failed evaluations, or repeatedly demonstrated the need for additional training.
- **Phase 2:** By September 30, 2009, inspectors were required to validate that carriers' training and qualification programs met regulatory standards. This included ensuring the carrier reviewed the entire performance history of any pilot in question, provided any needed remedial training, and corrected performance deficiencies.

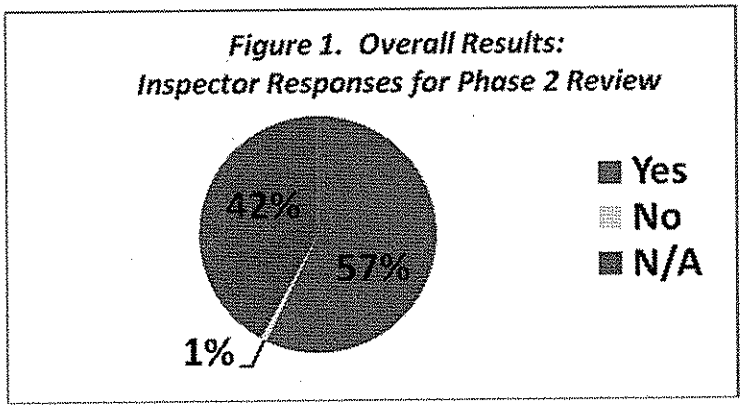
Generally, inspectors completed these reviews on time but criticized the lack of guidance from FAA Headquarters, the adequacy of surveillance questions, and the lack of communication from Headquarters on the overall results. For example, for Phase 1, FAA did not provide specific criteria to inspectors for identifying pilots with performance problems even though inspectors had never conducted this type of review before. As a result, the consistency and quality of those inspections may

[4] Crew Resource Management training focuses on leadership and decision making in the cockpit.

have varied. More importantly, the review identified more than 20 air carriers that had not fully implemented remedial training programs as previously recommended by FAA in 2006.

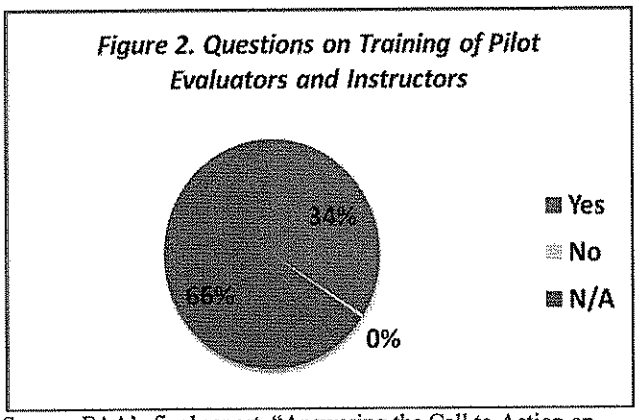
In addition, we are concerned that the surveillance questions during Phase 2 were not comprehensive enough to detect flaws in the carriers' training and qualifications programs. Although inspectors observed 2,419 pilot evaluation and training events during Phase 2, there were no questions on whether the pilots completed the evaluation successfully—a key measure of a training program's effectiveness. For example, at one carrier, an inspector confirmed that the training program met regulatory requirements; however, the inspector also noted that the captain crashed the simulator during a standard departure test. The check airman conducting the pilot's evaluation ultimately failed the pilot based on his poor performance. As a result, the "yes" response to this survey question did not flag the pilot's performance problems. Moreover, FAA Headquarters only captures "no" responses in any roll-up analysis of carriers' compliance. A true evaluation of an air carrier training program should have included a review of the program's effectiveness, not just compliance with requirements.

We are also concerned that many of FAA's surveillance questions were not relevant to actual air carrier operations since more than 40 percent of the responses for Phase 2 were recorded as "not applicable" (see figure 1).

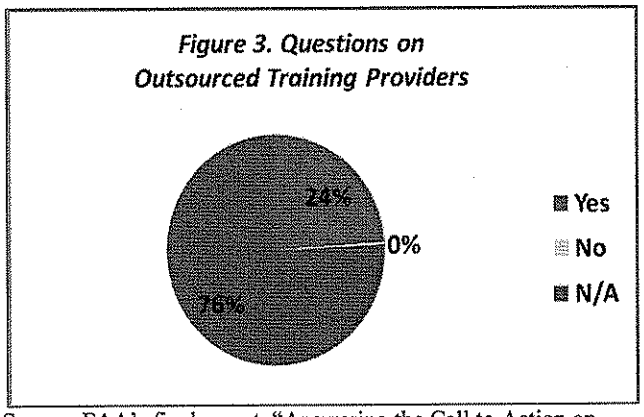


Source: FAA's final report, "Answering the Call to Action on Airline Safety and Pilot Training," issued January 2010

For some questions, this percentage was even higher. For example, "not applicable" responses to questions about carriers' pilot evaluators and instructors totaled about 66 percent. For questions about outsourced training, "not applicable" responses totaled about 76 percent (see figures 2 and 3).



Source: FAA's final report, "Answering the Call to Action on Airline Safety and Pilot Training," issued January 2010



Source: FAA's final report, "Answering the Call to Action on Airline Safety and Pilot Training," issued January 2010

Inspectors noted that the numerous "not applicable" responses were due in part to several questions requiring the inspector to verify training during in-flight tests; however, most of the training at regional air carriers is typically conducted using simulators. Moreover, while four of the five regional carriers we visited contract for flight simulator equipment, only one carrier contracted for instructors to perform the training. Therefore, only a few of these questions applied, demonstrating how little the questions developed by FAA Headquarters actually reflected an understanding of air carrier programs—much less evaluated their effectiveness. Further, FAA did not share the results of these reviews with the field inspectors until it issued the final report.

During our current audit on pilot training, we will also evaluate whether the carriers have a system in place to prevent poorly performing pilots from being paired with each other or with a low-time pilot since this could result in a scheduled flight being operated by two pilots who are in remedial training. Three of the five regional airlines we visited did not have an automated tool in their pilot monitoring programs to alert the scheduling department for crew pairings. This is an important watch area since FAA's special inspections found that 9 of the 85 carriers (11 percent) they reviewed did not have any component of a remedial training system in place.

In addition to performing focused inspections, FAA's Call to Action Plan included issuing new safety oversight guidance for inspectors through scenario-based training at an August 2009 All-Managers Conference. The training was intended to address issues raised by the DOT Secretary's Independent Review Team on Managing Risks in Civil Aviation.[5] For example, the team found remarkably varied regulatory approaches among inspection staff, which could drastically affect the consistency of decision making processes. The All-Managers workshop focused on managing contrasting regulatory views within the workforce, moderating extremes in

[5] The Independent Review Team was convened after serious safety issues were discovered with Southwest Airlines' maintenance program in 2008.

regulatory style, and optimizing the regulatory effectiveness and coherence across a diverse team of inspectors. However, the workshop was limited to managers and excluded field inspectors—the key group who had been identified as having inconsistent regulatory approaches. Therefore, at a minimum, the success of the workshop depended on the transfer of information from managers to their staff. We found, however, that this did not occur at all inspection offices. Further, FAA managers did not develop any new written guidance addressing this issue; yet, FAA considers this initiative complete. Lack of standardization in oversight has been a long-standing inspector workforce issue, and it is unlikely that a one-time seminar for managers only would fully address the problem. An essential key to gaining consistency among field inspectors is to provide standardized, written guidance that inspectors must follow.

FAA Missed Its Milestone for Establishing Programs To Improve Pilot Professionalism in the Cockpit

A lack of pilot professionalism has been cited as a safety concern in four of the last six fatal accidents involving regional airlines (see table 1 below). According to NTSB, crews violated "sterile cockpit" rules, requiring that pilots refrain from personal conversations during takeoffs or landings in the Colgan Air and the 2006 Comair accidents.

Table 1. Part 121 Accidents Involving Regional Carriers

Accident Date	Regional Carrier	Accident Site	Fatalities	Contributing Factors
12-Feb-09	***Colgan Air Inc*** (DBA* Continental Connection)	Buffalo, NY	50	Pilot professionalism, training, and pilot fatigue issues.
27-Aug-06	***Comair Inc*** (DBA Delta Connection)	Lexington, KY	49	Pilot performance, non-pertinent conversation during taxi.
19-Dec-05	***Flying Boat Inc*** (DBA Chalks Ocean Airways)	Miami, FL	20	Deficiencies in the company's maintenance program.
19-Oct-04	***Corporate Airlines*** (now Regions Air)	Kirksville, MO	13	Pilots' non-pertinent conversation during the flight and fatigue.
14-Oct-04	***Pinnacle Airlines*** (DBA Northwest Airlink) repositioning flight	Jefferson City, MO	2	Pilots' deviation from standard operating procedures, and poor airmanship.
8-Jan-03	***Air Midwest*** (DBA US Airways Express)	Charlotte, NC	21	Deficiencies in company's oversight of outsourced maintenance.

*Doing Business As (DBA)
Source: OIG analysis of NTSB data

Crew fatigue and distracting conversations in the cockpit have also been noted as safety concerns in non-fatal incidents—for both mainline and regional air carriers. For example, a Northwest flight overflew its Minneapolis destination by more than 100 miles on October 21, 2009, because the pilots were purportedly talking and using their laptop computers. In 2008, on a GO! Airlines flight (subsidiary of Mesa Airlines), two pilots fell asleep during a mid-morning flight from Honolulu to Hilo, Hawaii.

FAA intended to develop flight crew mentoring programs by July 31, 2009. FAA hoped this would involve senior pilots working with junior pilots to address issues with professional standards and flight discipline. However, discussions with industry representatives highlighted the many challenges facing development of a mentoring program, such as obtaining personal commitments from multiple staff at multiple carriers. Because FAA could not overcome these challenges, it missed the milestone. FAA is currently planning to host a forum for air carrier employee organizations this year but has not developed a detailed, long-term plan to address this issue. While

pilot professionalism cannot be regulated, training and fatigue have a direct impact on pilot performance, and those factors can be regulated and improved by FAA.

FAA NEEDS TO TAKE ADDITIONAL ACTION TO STRENGTHEN AIR CARRIERS' VOLUNTARY SAFETY EFFORTS

FAA requested that Part 121 air carriers and their unions provide written confirmation of verbal commitments made at the June 15 Call to Action meeting to strengthen voluntary safety efforts. To facilitate this process, the FAA Administrator sent letters to 98 Part 121 carriers[6] requesting improvements in three critical safety areas: pilot records, contract provisions, and voluntary safety programs. While FAA received written responses from 80 of the 98 carriers (82 percent), many were only partial commitments or no commitment at all. Specifically, FAA requested carriers to do the following:

- **Pilot Records**—Implement a policy asking pilot applicants for voluntary disclosure of all FAA records, including notice of unsatisfactory evaluations. According to our analysis, 20 of the 80 carriers (25 percent) committed to expanding pilot records reviews during their hiring process and 46 carriers already had such programs. Conversely, seven carriers did not commit to a full disclosure policy and another seven did not state their intention on this issue. For example, one carrier stated it already had a "rigorous pilot selection process" but did not provide any description of its process. Another carrier stated it complied with PRIA,[7] which was not the information FAA requested.

- **Contract Provisions**—Seek specific and concrete ways to ensure that smaller airline partner carriers adopt and implement the larger company's most effective practices for safety. Of the 80 carriers that responded to FAA's letters, 29 stated this effort was not applicable to their operations because they did not have contract partners. Thirty-five carriers responded that they already had contract provisions in place. Only one carrier offered a new commitment in this area. The remaining 15 include carriers that either did not respond or submitted unclear responses.

- **Voluntary Safety Programs**—Establish a Flight Operational Quality Assurance (FOQA) program and Aviation Safety Action Program (ASAP)[8] and develop data analyses processes to use the information in improving the safety of their operations. As shown in table 2, many carriers already had FOQA or ASAP

[6] FAA actually sent letters to 101 air carriers; however, 3 air carriers ceased operations prior to FAA releasing its results.
[7] Pilot Records Improvement Act, Pub. L. No. 104-264 (1996).
[8] FOQA is a program for the routine collection and analysis of digital flight data generated during aircraft operations. The intent of FOQA is to provide greater insight into the flight operations environment. ASAP is a joint FAA and industry program intended to generate safety information through voluntary disclosure that may not be otherwise obtainable to identify precursors to accidents.

programs or were planning to implement them. However, several responded that they did not have either of these programs and had no plans to implement them.

Table 2. Air Carrier Commitments on Voluntary Safety Programs

Air Carrier Commitments	FOQA		ASAP	
Already Implemented	14	18%	50	63%
Plan to Implement	41	51%	19	24%
Do Not Plan to Implement	22	28%	8	10%
Non-Specific Response*	3	4%	3	4%

**Air carrier response received but no specific commitment made.*
Note: Percentages do not total 100 percent due to rounding.
Source: OIG analysis of Total Air Carrier Commitment Responses - 80 out of 98 letters sent to active certificates.

Obstacles such as cost, equipment availability, and fleet size make FOQA implementation on a wide-scale basis extremely challenging for some regional air carriers. For example, 12 carriers either said they did not have the money to implement FOQA programs or they were too small for such an endeavor. This is a significant concern since a key goal of the Call to Action was to expand smaller or regional carrier participation in these types of safety programs. FAA has not presented any plans to encourage smaller carriers to establish these important safety programs.

In addition, we found many carriers' responses were either vague and lacked detail as to actions needed and timelines or stated they did not intend to take any action. For example, regarding FOQA:

- Five carriers merely stated they already had internal FOQA programs without further elaboration.
- Another carrier stated they are "currently exploring the implementation of FOQA."
- One carrier stated it would finalize its efforts to develop internal methods and technologies to more effectively analyze this data.

Despite the lack of rigor in these commitments, FAA did not follow up on any responses, ascertain whether carriers' planned actions would effectively meet safety goals, set milestones for completing safety improvements, or follow up with carriers that did not respond at all to the request for written commitments. While air carriers' commitments to FAA are voluntary, these steps could better ensure that regional

carriers effectively participate in safety programs. Yet, FAA's final Call to Action report has concluded that this initiative achieved its intended outcome.

OTHER CRITICAL PILOT SAFETY ISSUES THAT EMERGED AFTER THE COLGAN ACCIDENT REMAIN LARGELY UNADDRESSED

Other critical issues highlighted during hearings after the Colgan crash have not been addressed in the Call to Action plan. While some are longstanding concerns regarding pilot performance, the hearings emphasized their overall impact on safety, particularly at regional carriers. These issues present significant challenges for FAA as well as policy makers and industry stakeholders in determining the nature and extent of actions needed. These include the following:

- **Pilot domicile:** Piloting is a highly mobile profession, and pilots' residences are often in locations that are hundreds of miles from their assigned operations base. Pilot domicile issues were identified during the NTSB investigation into the Colgan accident as both pilots had commuted hundreds of miles before reporting for duty. Despite the potential impact commuting distances could have on pilot fatigue, the air carriers we have visited thus far do not track this information, and FAA does not require carriers to have policies addressing pilot domicile issues. As a result, the potential safety impact or extensiveness of this issue is unknown.

- **Differences in pilot training and hiring:** Although regional and mainline air carriers are under the same regulations and oversight system, the Colgan crash highlighted differences between the hiring, training, and safety programs of most regional and mainline carriers. For example, mainline carriers typically hire more experienced pilots from the military, whereas regional airlines usually hire pilots with fewer flight hours from flight training schools and Part 135[9] or corporate business operators. Additionally, many mainline carriers use a more advanced training program that uses data-driven quality control processes, enabling carriers to refine training based on identified needs. In contrast, most regional carriers have a traditional training program based on pilots receiving a minimum number of hours, which does not require the same amount of data collection and analysis.

- **Pilot experience and pay:** Many stakeholders have expressed longstanding concerns regarding a possible relationship between aviation accidents and pilot experience. The NTSB raised concerns about the disparate experience levels of the two pilots in the Colgan accident. The NTSB also raised pilot pay as a potential

[9] 14 CFR § 135, On-Demand, Operating Requirements: Commuter and On Demand Operations and Rules Governing Persons On Board Such Aircraft. 14 CFR § 119, Certification: Air Carriers and Commercial Operators, and some of the requirements of Part 91 also pertain to on-demand operators and commercial air carriers. This group operates smaller aircraft that are configured for 30 passengers or less or under 7,500 pounds of payload. Most of these operators fly on-demand (i.e., at the request of their customers).

factor, but no known study has been conducted to determine if a correlation exists between pilot pay, experience, and accidents. We are currently reviewing these issues, and while there are data limitations due to the relatively small number of accidents and incomplete or inconsistent reports of data, we have identified some preliminary trends. For example, our analysis of pilot experience in the last 10 major Part 121 passenger accidents (4 mainline carriers and 6 regional carriers) that occurred since 2000 showed that the mainline pilots involved consistently had more total flight time than their regional counterparts, with the exception of 1 co-pilot. Our preliminary analysis of pay in both industries shows that mainline pilots are compensated more than their regional counterparts, and compensation is driven by seat position, seniority, and aircraft type.

We are continuing our reviews in each of these areas and expect to issue our results later this year.

CONCLUSION

FAA's primary mission is ensuring aviation safety, and FAA maintains that it ensures one level of safety for all air carriers—both regional and mainline. However, recent fatal accidents and the resulting scrutiny raise questions as to disparities in regional and mainline operations that could impact safety, particularly in terms of pilot training, fatigue, and professionalism. While FAA's Call to Action Plan is a good first step, FAA's progress in implementing initiatives has been slow. FAA must develop initiatives that address root causes of safety problems and implement a process to measure their progress and impact on safety. We are continuing our work on FAA's actions to implement the Plan and several other critical issues that emerged after the Colgan accident. We will keep this Subcommittee apprised of our findings.

That concludes my statement, Mr. Chairman. I would be happy to address any questions you or other Members of the Subcommittee may have.

EXHIBIT. FAA'S CALL TO ACTION INITIATIVES

Initiative	Milestone	OIG Analysis of Status
Fatigue Rulemaking	December 31, 2009	**Missed Milestone** FAA hopes to issue it this spring
Focused Inspection Initiative	Phase 1: July 15, 2009 Phase 2: September 30, 2009	**Phase 1 and 2 completed, but** questions were poorly designed and ineffectively implemented
Training Program Review	SAFO to be issued by July 31, 2009	**Missed Milestone** FAA hopes to issue it by February 2010
Air Carrier Commitment Letters	Send letters to all carriers by June 30, 2009	**Letters were sent on time, but** FAA has not followed up on air carrier commitments
Union Commitment Letters	Send letters to unions by June 30, 2009	**Letters were sent on time, but** FAA has not followed up on union commitments
Mentoring	Develop and seek industry comment on mentoring programs by July 31, 2009	**Missed Milestone** Meetings planned with air carriers and industry in 2010
Regional Safety Forums	Hold 10 safety forums across country by July 2009	**Milestone Met**
Crew Training Requirements	After August 10, 2009, FAA will review comments and promptly issue rule	**Milestone Delayed** FAA hopes to issue by this spring
Guidance to Inspectors on Safety Oversight	Hold All Managers Meeting by August 2009 and issue inspector guidance	**Missed Milestone--guidance** Held Managers Meeting but did not issue inspector guidance
Final Report	Issue report by December 31, 2009	**Missed Milestone--one month late** Report issued January 26, 2010

Summary :

Missed Milestones =	6
Met Milestones =	1
Met Milestone, but not intended outcome=	3

Source: OIG analysis of FAA's Call to Action document