
Office of Inspector General

Audit Report

**FURTHER ACTIONS ARE NEEDED TO IMPROVE
FAA'S OVERSIGHT OF THE VOLUNTARY
DISCLOSURE REPORTING PROGRAM**

Federal Aviation Administration

Report Number: AV-2014-036

Date Issued: April 10, 2014



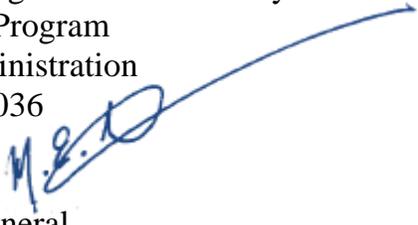


Memorandum

U.S. Department of
Transportation
Office of the Secretary
of Transportation
Office of Inspector General

Subject: **ACTION:** Further Actions Are Needed To
Improve FAA's Oversight of the Voluntary
Disclosure Reporting Program
Federal Aviation Administration
Report No. AV-2014-036

Date: April 10, 2014

From: Matthew E. Hampton 
Assistant Inspector General
for Aviation Audits

Reply to JA-10
Attn. of:

To: Federal Aviation Administrator

Voluntary safety programs play a significant role in maintaining our nation's impressive aviation safety record. At the forefront of these programs, the Federal Aviation Administration's (FAA) Voluntary Disclosure Reporting Program (VDRP) is an important catalyst for improvements in areas such as airline operations, maintenance, and training programs. VDRP provides air carriers the opportunity to voluntarily report and correct areas of non-compliance without civil penalty. The program also provides FAA important safety information that might not otherwise come to its attention.

While VDRP provides an important opportunity to identify and mitigate safety issues, it requires close monitoring by FAA to ensure the program is not misused. For example, in 2008, we reported a serious abuse of the program in which FAA allowed a major airline to repeatedly self-disclose violations of mandatory safety directives without ensuring the carrier had developed and implemented solutions to prevent recurrence of the problems.¹ In light of these issues, the FAA Modernization and Reform Act of 2012² mandated that our office examine FAA's oversight of VDRP. Accordingly, our audit objectives were to determine whether (1) FAA ensures that air carriers' disclosure reports meet VDRP requirements including the development and implementation of effective corrective actions, and (2) FAA uses VDRP data to identify safety risks.

¹ *Review of FAA's Safety Oversight of Airlines and Use of Regulatory Partnership Programs*, (OIG Report Number AV-2008-057), June 30, 2008. OIG reports are available on our Web site at <http://www.oig.dot.gov/>.

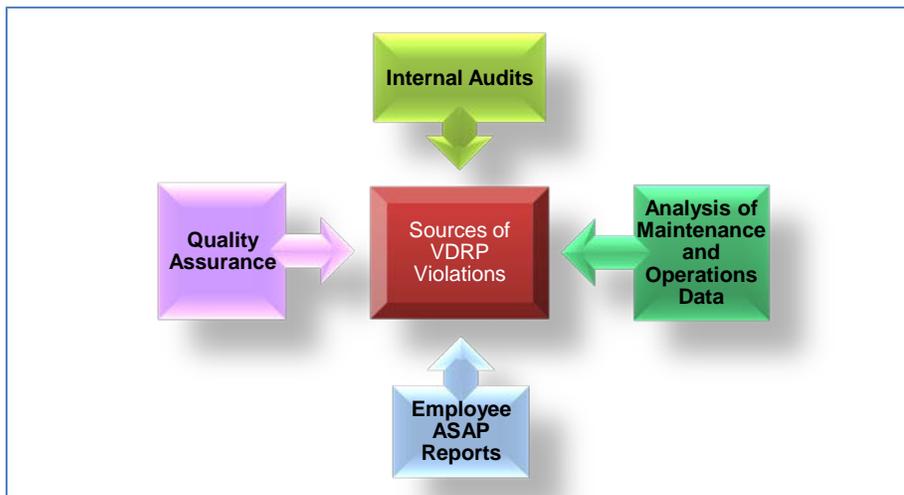
² The FAA Modernization and Reform Act of 2012, Pub. L. 112-95, February 14, 2012.

We conducted this review in accordance with generally accepted Government auditing standards. To perform our work, we visited 10 of 48 randomly selected Part 121 air carriers³ representing passenger and cargo operators, along with their respective FAA oversight offices. We interviewed 53 inspectors from these offices, as well as officials at FAA headquarters responsible for VDRP management and oversight. Exhibit A provides additional details on our scope and methodology. Exhibit B provides a list of FAA offices and air carriers we visited or contacted.

BACKGROUND

Since 2008, 98 percent of Part 121 air carriers have participated in VDRP. The program encourages airlines to voluntarily report instances of regulatory non-compliance to FAA. As shown in figure 1, these violations are usually identified through the air carrier's internal quality control processes, analysis of safety data, and employee reporting through the Aviation Safety Action Program (ASAP).⁴

Figure 1. Primary Means of Discovering VDRP Violations



Source: OIG.

³ 14 CFR Part 121, Operating Requirements: Domestic, Flag, and Supplemental Operations. While there are approximately 86 part 121 air carriers, we limited our sample to only those 48 carriers with more than 10 closed reports for the period October 1, 2007 through July 23, 2012.

⁴ A joint FAA and industry program intended to generate safety information through voluntary disclosure; allows individual aviation employees to disclose possible safety violations to air carriers and FAA without fear that the information will be used to take enforcement or disciplinary action against them.

Under VDRP, it is FAA's policy⁵ to accept a voluntary disclosure and forego civil penalties when the following conditions are met:

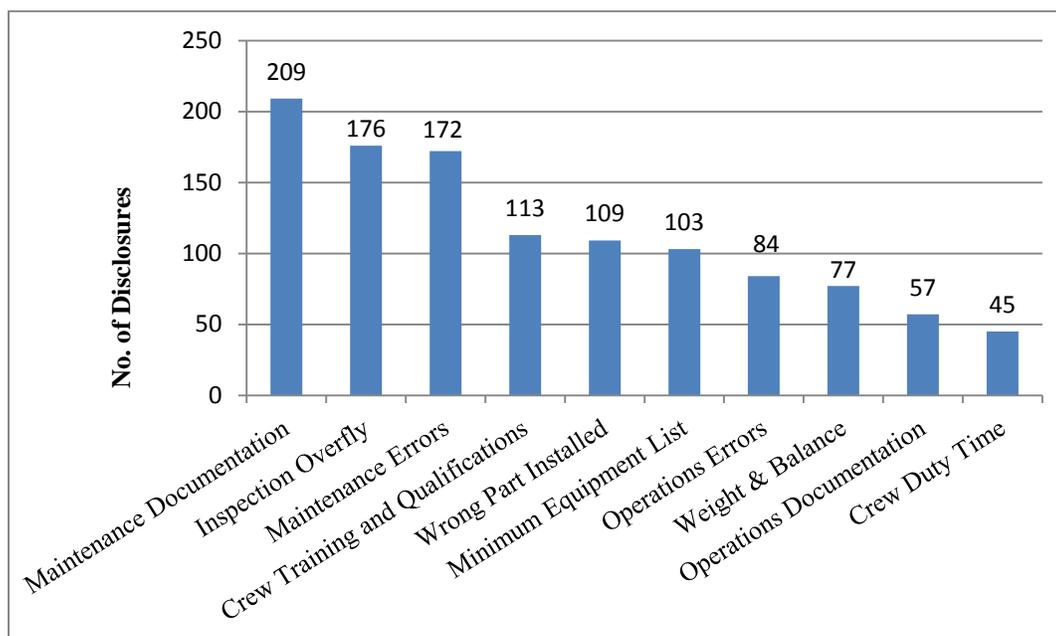
- The air carrier has notified FAA of the apparent violation immediately after detecting it and before the Agency has learned of it by other means.
- The violation was inadvertent.
- The violation does not indicate a lack, or reasonable question of, qualification of the air carrier.
- Immediate action was taken by the carrier to terminate the conduct that resulted in the violation.
- The air carrier has developed or is developing a comprehensive fix, schedule of implementation, and a self-audit to ensure the action taken corrects the noncompliance.
- The initial notification of a voluntary disclosure was submitted by one of the approved air carrier management officials.

There are certain exceptions that allow FAA to exercise discretion in accepting self-disclosures. For example, if FAA learns of a violation through ASAP or during joint inspections where FAA and the air carrier identify a problem at the same time, the disclosure can still be accepted. See exhibit C for a synopsis of the full VDRP process.

The majority of voluntary disclosures relate to maintenance issues. As shown in figure 2, documentation errors, issues related to performing inspections on time, and errors performing maintenance are the leading causes of air carrier self disclosures. In addition to the different categories of air carrier self disclosures, the severity of the violations varies greatly. Voluntary disclosures can range from minor infractions to major violations.

⁵ FAA Order 8900.1 Volume 11, Chapter 1, dated June 7, 2011, "Voluntary Disclosure Reporting Program" and FAA Advisory Circular 00-58B, dated April 29, 2009, "Voluntary Disclosure Reporting Program."

Figure 2. Top 10 Categories of Voluntary Disclosures: Maintenance and Operations, October 2007–July 2012



Source: OIG analysis of FAA’s VDRP database for 10 randomly selected Part 121 air carriers.

Our 2008 review of Southwest Airlines disclosed lapses in FAA’s oversight of air carriers, including its oversight of VDRP. Our work, which included an investigation at one airline, two congressional hearings, and an audit report, resulted in recommendations to improve the program. We found that the breakdown in FAA’s oversight occurred because the Agency lacked effective management controls to oversee the program and did not verify that air carriers took the necessary measures to correct the underlying causes of violations identified through VDRP. Some of these problems continue to exist today.

In addition to our efforts in 2008, the former Secretary of Transportation established an Independent Review Team (IRT)⁶ comprised of industry experts to examine FAA’s approach to safety oversight. The IRT highlighted VDRP during its review due to its importance to commercial aviation safety. In its conclusions, the team stressed the need for a higher level FAA management approval of voluntary disclosures and better analysis of reports.

RESULTS IN BRIEF

FAA has made progress in ensuring that air carrier disclosure reports meet VDRP requirements. FAA now requires a higher-level management approval for

⁶ A Blue Ribbon Panel was appointed May 1, 2008 by then Secretary of Transportation Mary E. Peter to examine the FAA’s Safety Culture and Approach to Safety Management. A final report from the panel, “Report of the Independent Review Team” was issued in September 2008.

acceptance and closure of VDRP reports. However, FAA lacks awareness of the root causes that led to reported violations, in part because FAA does not require air carriers to identify or document the root cause of a violation when they submit a self-disclosure. Further, FAA guidance states inspectors should be involved in the root cause identification process with air carriers, but none of the inspectors we interviewed were doing so. Without an understanding of the underlying causes behind a violation, FAA cannot be assured that air carriers have developed corrective actions that will prevent violations from recurring and limits its inspectors' ability to identify repeat disclosures. In addition, FAA does not ensure that air carriers fully implement corrective actions or verify whether the actions are adequate at resolving the problems.

FAA does not effectively collect, analyze, and trend VDRP data to identify safety risks at the national level. As a result, FAA inspectors are not realizing the full benefits of VDRP data to identify safety risks and aid in their inspection planning process. Despite these issues, we found that some air carriers and FAA offices have begun analyzing disclosures to identify trends that represent risks. For example, at three FAA offices we visited, inspectors developed a method to link self-disclosures to established surveillance areas (e.g., airworthiness directives and maintenance requirements), which has aided in their inspection planning. However, these practices are not required and thus, are not widely used throughout the industry. Consequently, FAA is missing a significant opportunity to target inspections to areas of highest risk.

We are making a series of recommendations to improve FAA's oversight and ability to identify safety risks using VDRP.

FAA DOES NOT ADEQUATELY EMPHASIZE THE UNDERLYING CAUSES OF VDRP VIOLATIONS

In response to our 2008 report, FAA improved VDRP guidance and oversight by requiring senior office managers to approve both the acceptance and closure of air carrier self-disclosures. However, FAA controls are not effective in ensuring that air carrier corrective actions address the root causes of safety violations and identify systemic issues. In addition, FAA does not consistently confirm that corrective actions are fully implemented and effective, and senior office managers do not always have all the information needed to determine whether a disclosure can be closed. Finally, air carriers are concerned about the duplication of work required to process the same violation through VDRP and ASAP, but FAA is exploring ways for handling certain violations using only ASAP.

FAA Does Not Ensure That Air Carrier Corrective Actions Address Root Causes of Safety Violations and Identify Systemic Issues

FAA's VDRP process lacks sufficient attention to the root causes of air carrier violations. After an air carrier submits its complete report, FAA is required to review the air carrier's proposed corrective actions and implementation plans to determine whether they will address the reported violation. Identifying the root cause of a violation (e.g., missing a step on a maintenance task card) is important in this process because revisions to a flawed process or procedure will often eliminate or reduce the probability of reoccurrence. However, we found that FAA inspectors lack an awareness of the root causes behind most reported violations, in part because the electronic VDRP system used by air carriers does not include a specific section for documenting root causes. Without clear documentation from air carriers, FAA inspectors cannot easily verify whether the carriers have identified the root cause of violations and addressed them in their proposed corrective actions.

Root cause analysis is an important tool that helps airlines identify the contributing factors of violations rather than just the obvious symptoms, and this tool is critical to ensure the effectiveness of any proposed corrective actions. For example, in 2011, one air carrier voluntarily disclosed that one of its aircraft's main batteries was inadvertently replaced with another battery that had exceeded its shelf-life and the aircraft had been flown on four flights with the expired battery. The air carrier used root cause analysis to determine that an issue with the parts tracking system was causing parts to be retained beyond their shelf-life. As its comprehensive fix, the air carrier corrected the problem, and no further incidents involving shelf-life have since been reported. As this example illustrates, by identifying and then addressing the root cause of a given safety violation, air carriers can better ensure that their proposed corrective actions will effectively prevent a violation from recurring.

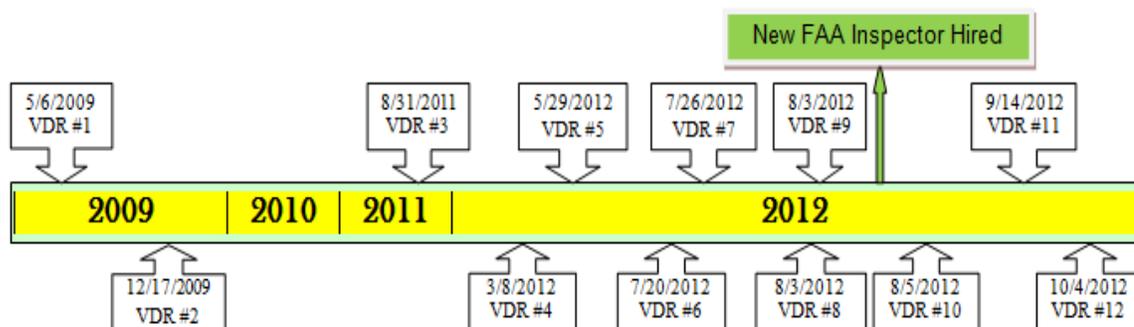
FAA's guidance lacks clarity regarding the extent to which its inspectors should be involved in the root cause identification process. According to the guidance, inspectors should work with air carriers to ensure they have identified root cause and systemic issues that led to the violation. However, FAA inspectors we interviewed were not clear about their role and did not participate in the root cause identification process or validate that air carriers identified root causes.

FAA's lack of awareness of root cause analysis also limits its ability to identify repeat disclosures and increases the risk that these violations could go undetected—a concern we identified in our 2008 report. Because the details of individual disclosures can vary significantly, it is difficult to identify a common issue between multiple reports without a clear understanding of root cause(s). However, because air carriers rarely identify the root cause of violations in the

VDRP system, there is no documentation or formal process to help inspectors identify whether multiple disclosures share the same underlying cause.

Instead, at 8 of 10 FAA offices we visited, inspectors stated that they typically rely on their past experience and memory to identify repeat disclosures. However, many of these offices experienced significant staff turnover. For example, at four of the offices we visited, a principal inspector changed three times within a 3 year period starting in May 2010. Further, at one of these offices the principal operations inspector changed six times. Without reliable, objective methods to identify, document, and track root causes of disclosures, inspectors who transition into a principal role may not recognize repetitive issues. For example, we found that a new operations inspector for a major airline accepted three self-disclosures involving flights with less than the minimum number of required flight attendants⁷ before realizing that nine similar violations had been previously accepted (see figure 3 below).

Figure 3. Missed Flight Attendant Minimums at One Air Carrier (2009–2012)



Source: OIG analysis of FAA VDRP data.

The VDRP also does not require air carriers to specify whether the violation occurred due to the actions of an individual or a systemic problem. This is important because if the issue is systemic, the carrier will have to develop a detailed fix to address the system as a whole—whereas if the issue is more isolated or individual, the fix will be focused more at the employee level, such as providing counseling or training. Without this information, FAA inspectors are not able to determine whether multiple self-disclosures with similar violations handled at an individual level are indicative of a larger system-wide problem at an air carrier. For example, a large air carrier we visited self-disclosed 31 minimum equipment list⁸ violations over a 5-year period, 11 of which occurred in the same year.

⁷ 14 CFR 121.391 requires air carriers to provide a minimum number of qualified flight attendants when passengers are on board the aircraft.

⁸ Minimum equipment lists provide for the operation of the aircraft with certain instruments and equipment in an inoperable condition.

Despite similar violations occurring at multiple locations, the air carrier focused the majority of its corrective actions at the individuals involved in each incident rather than system-wide improvements to the minimum equipment list process.

FAA Lacks an Effective Process for Ensuring Implementation and Effectiveness of Corrective Actions

FAA inspectors do not document steps taken to verify that air carrier corrective actions were effectively implemented. FAA inspectors are required to perform surveillance and monitor air carrier corrective actions associated with self-disclosures. However, 77 of 110 self-disclosures included in our sample did not contain details of the inspection or any follow-up actions. While the VDRP system has a comment block in the surveillance section to provide this information (as shown in figure 4), inspectors do not routinely include comments related to the inspection. Without this additional information, there is no evidence that inspectors performed surveillance to ensure that the corrective action was working.

Figure 4. Example of Surveillance Section of a VDRP Form

Surveillance

Implemented Satisfactory ? Was Comprehensive fix changed during the implementation?

Yes No

Additional Comments

No surveillance comments provided on 77 of 110 self-disclosures reviewed.

Source: FAA's VDRP database.

Instead, FAA inspectors we interviewed stated that they record the results of their surveillance in other inspection databases, including the Air Transportation Oversight System (ATOS)⁹ and the Program Tracking and Reporting Subsystem

⁹ A data-driven, risk-based system used by FAA at Part 121 air carriers to conduct surveillance of air carrier maintenance and operations by using data analysis to focus inspections on areas that pose the greatest risk and identify potential problems before accidents occur.

(PTRS).¹⁰ However, entries in these systems varied dramatically in the details provided, and lacked information needed to trace the entry back to the specific problem described in the self-disclosure. Furthermore, because of confidentiality protections, FAA does not allow any VDRP-identifying data to be included in other inspection systems, which demonstrates the importance of providing this information in VDRP's secure system.

Without a record of the surveillance performed, inspectors may not be able to ensure the full implementation of air carrier corrective actions. For example, an air carrier we visited submitted a self-disclosure for failing to conduct mandatory inspections of the airplane battery, which is intended to prevent the loss of all electrical power on the aircraft. To prevent the issue from recurring, the carrier agreed to upgrade its maintenance tracking and planning system to alert mechanics of the required inspection. However, due to problems with upgrading the system, the carrier did not make the necessary modifications and the airline missed another required inspection. Also, the FAA inspectors had not documented the surveillance information and were unaware that the corrective action was not completed, despite a second disclosure of a similar violation.

In addition, FAA does not review required air carrier self-audits. The VDRP requires air carriers to perform a self-audit to ensure their proposed corrective actions were implemented and effective. However, inspectors in 7 of the 10 FAA offices we visited did not routinely review the results of these audits. Instead, inspectors relied on confirmations from the carrier that the audits were completed. This is a concern because three air carriers we reviewed did not perform the required self-audits at all. In addition, five air carriers we visited did not evaluate the effectiveness of corrective actions during self-audits—they only verified the implementation.

Multiple carriers stated the effectiveness of a corrective action is best determined over time—not immediately following its implementation. For example, as a best practice, one air carrier established a corrective action review board made up of senior management officials that meets quarterly to ensure implemented fixes effectively addressed reported issues. The carrier cited an example of an issue where maintenance personnel did not complete a required inspection of an aircraft involved in a lightning strike prior to returning it to service. Once the missed inspection was discovered, the airline immediately grounded the aircraft and self-disclosed the violation to FAA. For its corrective action, the carrier enhanced its inspection process, and the Agency closed the disclosure. However, the corrective actions remained in the carrier's internal review board process until

¹⁰ FAA database that provides for the collection, storage, retrieval, and analysis of data resulting from FAA inspections and surveillance.

another lighting strike occurred, which allowed the board to evaluate the effectiveness of the changes.

Finally, FAA lacks controls to ensure that any subsequent revisions to comprehensive fixes do not have an adverse and unintended impact on the effectiveness of the corrective action. For example, an air carrier could make a change to its maintenance manual in response to a VDRP violation, but then revise the manual several months later in a way that may no longer address the violation from the VDRP report. While FAA requires air carriers to obtain Agency approval if they later make changes to approved corrective actions, only 4 of the 10 air carriers we visited had a process to identify these changes. Without controls to identify and track changes, air carriers may modify procedures which could nullify a previous report and thereby increase the likelihood of another event.

Lack of Information Hinders FAA's Ability To Conduct Effective Second-Level Reviews and Make Informed Decisions on Whether a VDRP Report Should Be Closed

FAA senior office managers lack adequate details for making an informed and data-driven decision on whether to close a VDRP report. VDRP guidance requires that senior office managers determine the adequacy of the comprehensive fix and its implementation prior to closing a self-disclosure report. However, our review of 110 self-disclosures showed that 42 reports did not contain enough information from FAA inspectors or the air carrier to show that the comprehensive fix was properly implemented and working effectively.

In the absence of clear evidence that corrective actions were completed, senior FAA office managers typically rely on informal and undocumented communication with inspectors to make a final determination on whether to close out the disclosure. However, this method has the potential to undermine the effectiveness of the second-level review. For example, officials at one carrier were not able to provide substantiation that they fully completed the comprehensive fixes for two out of three self-disclosures we reviewed. Specifically:

- In one report, the air carrier voluntarily disclosed a violation in which an improper tool was used to secure a right side thrust reverser¹¹ on an aircraft, which caused the system to malfunction. On the next flight, the thrust reverser was activated upon landing but did not work because of the improper maintenance. As part of the comprehensive fix, the carrier agreed to purchase a new part. However, our review of the purchase order revealed that FAA closed the report prior to the carrier purchasing the new part.

¹¹ Thrust reverser systems are used by many jet aircraft to help slow down just after touch-down, reducing wear on the brakes and enabling shorter landing distances. Having such devices is considered important for operational safety by air carriers.

- In another report, an air carrier self-disclosed that they were not in compliance with Federal requirements for collecting 2 hours of cockpit voice recorder data for each flight. FAA closed the VDRP report based on the carrier's commitment to a three-part corrective fix, which included improvements to tracking, procedures, and software. However, the carrier was not able to provide evidence that it fully completed all elements of the comprehensive fix. Nevertheless, FAA closed the disclosure.

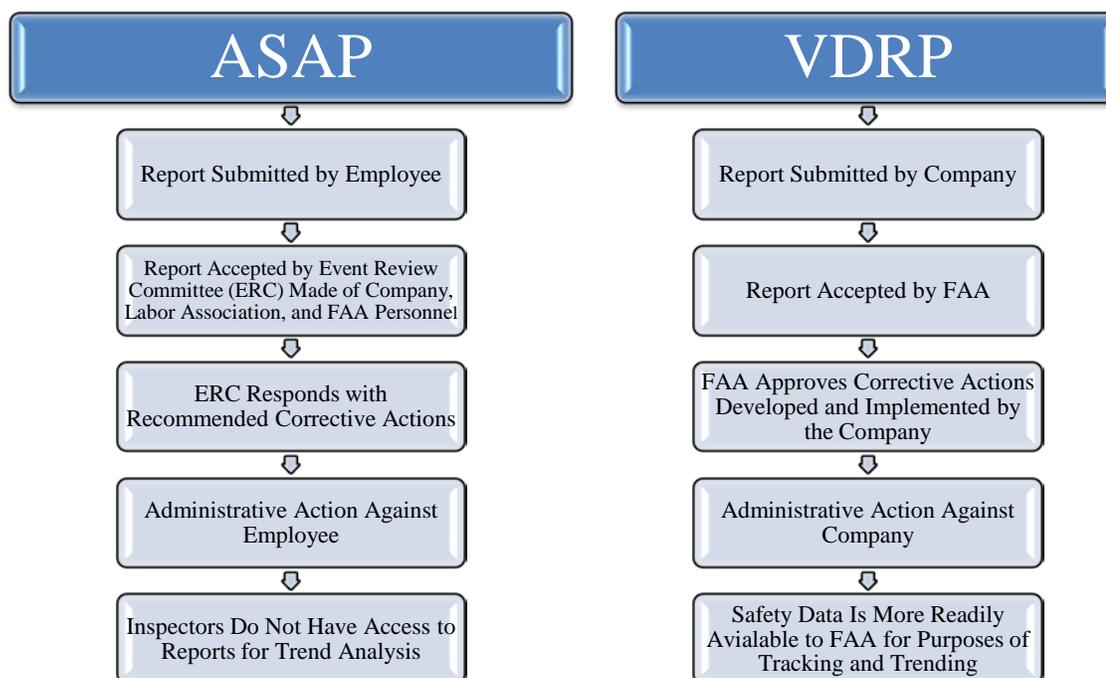
Similarly, inspectors at one FAA office closed reports before implementation even though the carrier's corrective actions were planned over an extended timeframe. For example, an air carrier self-disclosed that a pilot failed to complete required security training needed to maintain his qualification on the aircraft. The pilot performed multiple flights over a 2-week period before the airline discovered the violation. As a corrective action, the carrier developed changes to its crew records forms and scheduling program, which were to be completed by March 2011. However, in March 2009, FAA accepted the proposed actions and closed the disclosure, without ensuring that employees were trained and the new procedures were effective.

Plans To Reduce Reports Included in VDRP Could Further Limit Inspectors' Ability To Identify Safety Risks

The VDRP and ASAP programs often contain the same safety violations to protect the interests of both the employee and the company. Under the ASAP program, aviation employees can self-report violations to air carriers and FAA without fear of reprisal through legal or disciplinary actions. These reports do not contain identifying details in order to protect the confidentiality of the employee. At 7 of the 10 air carriers we visited, officials stated that they are strongly encouraged by their FAA office to file a self-disclosure (VDRP) for ASAP incidents. However, air carrier representatives we interviewed raised concerns that this practice causes an undue burden on the air carrier if the violation was not a company violation, rather an employee only violation. Additionally, air carrier representatives felt that many of these issues could have been corrected through the ASAP program alone.

While VDRP guidance allows air carriers to use an approved ASAP corrective action within a VDRP report, most air carriers and FAA offices were not aware of this possibility. As a result, air carriers often create two work streams including separate comprehensive fixes for the same issue. While these programs contain similarities in design and work flow, we did identify fundamental differences in the level of FAA involvement and the ability to access and track reports, as shown in figure 5 below.

Figure 5. ASAP vs. VDRP Work Streams



Source: OIG.

FAA is in the process of updating guidance to better streamline these programs by allowing some ASAP reports and corrective actions to take the place of VDRP disclosures when the violation is due entirely to the actions of an employee or if it is due to a systemic or procedural deficiency within the company. This would represent a significant change in the way these programs operate; however, it may further limit inspector's ability to identify safety trends. For example, if certain self-disclosures are only entered into ASAP, the number of VDRP reports would be reduced. Because inspectors do not have access to reports in ASAP, they would be unable to use this valuable safety data for trend analysis. Therefore, while FAA's new guidance for ASAP and VDRP could potentially increase the efficiency of its programs, it could also end up restricting inspectors' access to valuable safety data.

FAA DOES NOT EFFECTIVELY COLLECT, ANALYZE, AND TREND VDRP DATA TO IDENTIFY SAFETY RISKS

While VDRP provides FAA with important safety information that otherwise may go undetected, the Agency does not analyze self-disclosure data to identify trends and target safety risks. In response to the 2008 investigation and recommendations from the IRT, FAA began to review and analyze VDRP reports to categorize events (e.g., maintenance, operations, etc.) and identify trends and patterns that

may represent risks. Additionally, FAA issued guidance requiring inspectors to use these data during inspection planning.

However, the Agency found that existing data access and analysis tools within VDRP, as well as quarterly summary reports, did not provide meaningful information that could be used by inspectors in monitoring safety issues and planning inspections. In 2011, an FAA workgroup formed to develop the best strategy for assessing VDRP data and found that the Agency's Safety Performance Analysis System (SPAS)¹² could be used to achieve the group's recommendations. However, the Agency has delayed implementing this reporting capability until funding can be dedicated to this project.

While FAA is not using VDRP data to trend risks at the national level, some local FAA offices have implemented best practices that use VDRP data to improve their surveillance. For example, inspectors at three FAA oversight offices we visited associated self-disclosures with specific air carrier activities that are part of FAA's planned oversight process. These offices could then trend the combined surveillance and self-disclosure data to identify areas of increased risk and assign inspections as necessary.

In addition, FAA inspectors routinely attend monthly air carrier meetings focused on issues identified within their maintenance programs. One FAA inspector used VDRP data to pinpoint deficiencies in a carrier's maintenance program, which prompted the airline to increase its awareness and depth of VDRP detail in its monthly presentations. At four air carriers we visited, self-disclosures were incorporated with other safety data (e.g., ASAP) to detect trends, highlight priority events, and make process improvements. In addition, analysis of VDRP data was a major factor in helping two carriers' secure human factors training for their employees. Representatives at these carriers used trend data to show executives within the organization that self-disclosure violations could be directly attributed to human error. However, these practices are not in place at all carriers and FAA offices, and, on the whole, we found inspectors did not regularly adjust their surveillance based on self-disclosures.

In June 2005, FAA created a procedure for its regional offices to audit and verify air carrier compliance with voluntary disclosure policies. Regional offices review self-disclosures to ensure that all the fields were completed in the VDRP Web-based entry, required attachments were accounted for, and the conditions of acceptance were met. However, these reviews do not involve tracking or trending of self-disclosures at or between air carriers. Furthermore, if repeat offenses exist, FAA guidance states that regional officials are to ensure that the carrier revises the

¹² Computer system designed to analyze information about air carriers from existing safety databases, and alert inspectors to pending safety trends.

comprehensive fix to prevent further recurrence. However, regional officials do not track or trend the nature of self-disclosures and do not have a historical vantage point from which to determine whether disclosures were repetitive.

CONCLUSION

Voluntary safety programs, such as VDRP, play a vital role in FAA's mission to improve the safety of the commercial air carrier industry. Since 2008, FAA has strengthened controls to deter misuse of the program and attempted better data analysis of self-disclosure reports. However, FAA can further improve the program by focusing attention on root cause analysis, tracking air carrier corrective actions, and trending data to ensure the effectiveness of air carrier corrective actions and prevent repeat violations. Otherwise, FAA may be missing opportunities to use available VDRP safety data to identify precursors to accidents or incidents that may compromise safety.

RECOMMENDATIONS

To further improve the VDRP program, we recommend that FAA:

1. Add dedicated data fields in the VDRP electronic system for air carriers to describe the root cause(s) associated with the non-compliance and identify whether the violation occurred due to the actions of an individual or a systemic problem.
2. Require inspectors to evaluate the root cause(s) determination to ensure repeat self-disclosures do not go undetected and potential systemic issues are identified.
3. Require inspectors to use the dedicated field within the VDRP electronic system to document the surveillance performed as a result of self-disclosures.
4. Require inspectors to ensure that air carriers track any revisions to programs and procedures resulting from VDRP disclosures to prevent future modification without consideration of VDRP requirements.
5. Provide familiarization training to inspectors and office managers regarding VDRP guidance that allows the ASAP corrective actions to be used as the comprehensive fix for a voluntary disclosure when certain conditions are met.
6. Ensure that inspectors' ability to obtain safety data is not further restricted through efforts to streamline voluntary safety programs.
7. Develop a mechanism to assist inspectors with surveillance planning, identification of safety issues, and monitoring trends for Part 121 air carriers.

8. Analyze VDRP data from a national perspective to aid in the identification of system-wide trends and patterns that represent risks.

AGENCY COMMENTS AND OFFICE OF INSPECTOR GENERAL RESPONSE

We provided a draft of this report to FAA on January 31, 2014. The Agency did not provide a written response to the report or our recommendations. Throughout the review, we discussed our findings and proposed recommendations with FAA representatives. Where appropriate, we incorporated FAA's comments and input received during our meetings at both FAA headquarters and regional offices. However, until we receive the Agency's written response, our recommendations will remain open and unresolved.

ACTIONS REQUIRED

In accordance with Department of Transportation Order 8000.1C, a written response to this report and our recommendations is required. If you concur with the findings and recommendations, please indicate the specific action taken or planned for each recommendation and the target date for completion. If you do not concur, please provide your rationale. You may provide alternative courses of action that you believe would resolve the issues presented in this report. Please provide your response within 30 days.

We appreciate the courtesies and cooperation of FAA representatives during this audit. If you have any questions concerning this report, please call me at (202) 366-0500 or Tina Nysted, Program Director, at (404) 562-3770.

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cc: DOT Audit Liaison, M-1
FAA Audit Liaison, AAE-100

EXHIBIT A. SCOPE AND METHODOLOGY

We conducted this review between September 2012 and January 2014 in accordance with generally accepted Government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Our audit work was conducted at five FAA Certificate Management Offices and five Flight Standards District Offices that had oversight responsibility for the air carriers in our review. We used a statistical sampling methodology to select the 10 air carriers. Our universe was comprised of 86 active FAR Part 121 air carriers as of July 23, 2012, and reduced to 48 when reviewing carriers with more than 10 closed voluntary disclosures from October 1, 2007 to July 23, 2012.

We used FAA's categories of operator types (Large Part 121, Small Part 121 and supplemental, and Part 121/Part 135 air carriers) to stratify the universe and we selected our sample using those categories. Samples were selected with probability proportional to the number of voluntary disclosures with replacement. With the assistance of Team SAI, an air transportation consulting firm, we conducted an analysis of disclosure reports to identify whether FAA had accepted repetitive issues, and whether air carriers took appropriate corrective actions and reduced the likelihood of reoccurrence. Our sample consisted of 6 large Part 121 air carriers, 3 small Part 121 and supplemental air carriers, and 2 Part 121/Part 135 air carriers for a total of 11 air carriers visited. The number of carriers was reduced to 10 when we excluded a Part 121 supplemental air carrier to remove any appearance of a lack of independence due to our aviation consultant's prior work with that carrier.

To evaluate the effectiveness of FAA's oversight of VDRP, we interviewed 53 FAA inspectors responsible for oversight of the program at the 10 air carriers in our review. We also interviewed the applicable senior office managers at each FAA office visited. To conduct our reviews at the 10 air carriers, we randomly selected 110 VDRs out of 1,335 disclosures from these carriers from October 1, 2007 to July 23, 2012. In addition, we interviewed air carrier officials to gain their perspective and experience with VDRP.

EXHIBIT B. ORGANIZATIONS VISITED OR CONTACTED

Federal Aviation Administration (FAA) Headquarters and Regional Offices:

| | |
|--|----------------|
| Flight Standards Service | Washington, DC |
| Aviation Safety | Washington, DC |
| Quality Integration & Executive Service | Washington, DC |
| Flight Standards Service | Washington, DC |
| Air Transportation Division, Voluntary Safety Programs Branch | Washington, DC |
| Southwest Region | Fort Worth, TX |

FAA Certificate Management Offices (CMO):

| | |
|------------------------|-----------------|
| AMR CMO | Irving, TX |
| Atlanta CMO | Hapeville, GA |
| Portland CMO | Hillsboro, OR |
| Southwest Airlines CMO | Irving, TX |
| United Air Lines CMO | Des Plaines, IL |

FAA Certificate Management Units (CMU) at Flight Standards District Offices (FSDO):

| | |
|--|-----------------|
| ABX Air CMU at East Michigan FSDO | Belleville, MI |
| Air Wisconsin CMU at Chicago O'Hare FSDO | Des Plaines, IL |
| Empire Airlines CMU at Spokane FSDO | Spokane, WA |
| Piedmont Airlines CMU at Baltimore FSDO | Glen Burnie, MD |
| Vision Airlines CMU at Las Vegas FSDO | Las Vegas, NV |

Air Carriers:

| | |
|----------------------------------|---------------------|
| ABX Air | Wilmington, OH |
| Air Wisconsin Airlines | Appleton, WI |
| American Airlines | Fort Worth, TX |
| Empire Airlines | Hayden, ID |
| Evergreen International Airlines | McMinnville, OR |
| ExpressJet Airlines | Atlanta, GA |
| Piedmont Airlines | Salisbury, MD |
| Southwest Airlines | Dallas, TX |
| United Airlines | Chicago, IL |
| Vision Airlines | North Las Vegas, NV |

EXHIBIT C. VDRP PROCESS

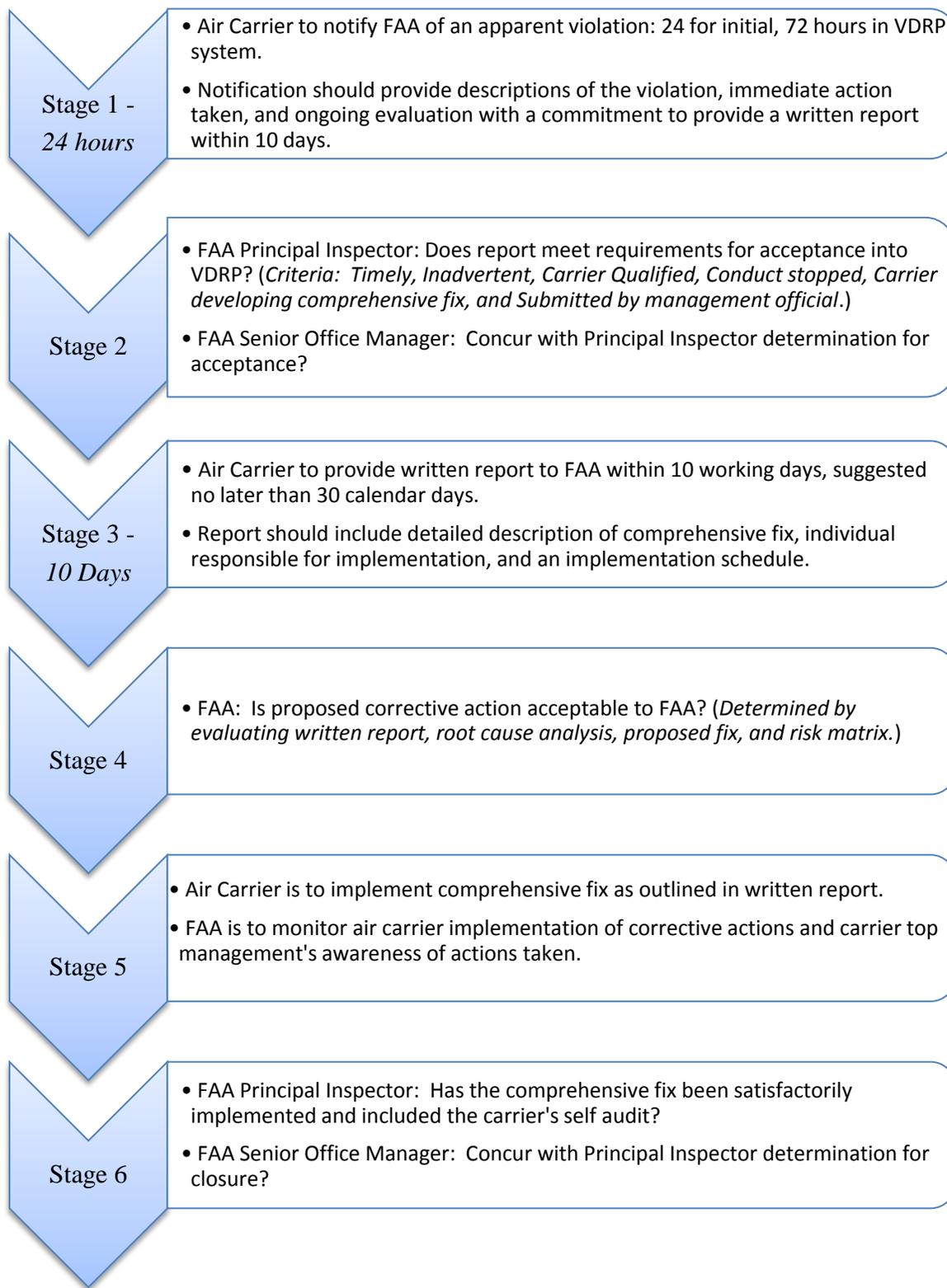


EXHIBIT D. MAJOR CONTRIBUTORS TO THIS REPORT

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