

FAA'S EFFORTS TO MAINTAIN AND SECURE PILOT RECORDS
U.S. Department of Transportation, Office of Inspector General

Statement for the Record:

**Hearing Before the Committee on Oversight and Government Reform,
Subcommittee on Transportation and Public Assets
United States House of Representatives
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Mr. Chairman and Members of the Subcommittee:

In 2014, over 590,000 pilots held active U.S. airmen certificates issued by the Federal Aviation Administration (FAA).¹ To become certified, pilots must meet eligibility requirements and be trained and tested on the type of aircraft they want to fly. To exercise the privileges of their airmen certificate, pilots, flight navigators, and flight engineers must also maintain a valid medical certificate verifying their fitness to fly.

However, multiple U.S. carrier accidents have been attributed in part to errors made by pilots who were hired without sufficient background safety checks. During the investigation of the 2009 Colgan Air crash in New York, the National Transportation Safety Board noted that the carrier was unaware of the captain's previous flight check failures because they were not included in records available to the carrier through the standard pilot record review process.

To fully evaluate pilot qualifications and fitness, air carriers and FAA are responsible for maintaining a robust and secure information system on pilot training, medical, and performance records. To ensure these records are retained for the life of the pilot and that air carriers review those records when making hiring decisions, the 2010 Airline Safety and Extension Act mandated that FAA create a pilot records database (PRD).

Since 2013, we have reported on deficiencies we identified in FAA's efforts to develop a PRD. We have also conducted numerous audits and investigations that point to ongoing deficiencies in pilot screening and airman data security.²

This statement focuses on our latest findings, primarily reported through our August 2015 audit report,³ and highlights the potential and real risks uncovered through our investigations.

¹ Another 1.1 million aviation-related professionals—including mechanics, flight attendants, flight engineers, and other aviation technicians—held U.S. airmen certificates in 2014.

² *FAA's Civil Aviation Registry Lacks Information Needed for Aviation Safety and Security Measures* (OIG Report No. FI-2013-101), June 27, 2013; and *Management Advisory on Registration of Aircraft to U.S. Citizen Trustees in Situations Involving Non-U.S. Citizen Trustees and Beneficiaries* (January 31, 2014). OIG reports and advisories are available on our Web site at <http://www.oig.dot.gov/>.

³ *FAA Delays in Establishing a Pilot Records Database Limit Air Carriers' Access to Background Information* (OIG Report No. AV-2015-079), August 20, 2015.

SUMMARY

A robust, centralized database for pilot records remains years away. Delays in implementing the PRD are largely due to a protracted rulemaking process and FAA's deferred decisionmaking regarding historical records, carriers' transition to the new database, and records retention. For example, FAA waited nearly 2 years to begin responding to our January 2013 recommendation to assess whether air carriers retain required records for the database—a particular problem when carriers cease operations. As we reported last August, one-third of the carriers we visited had not revised their policies for records retention. In addition, FAA has not determined whether air carriers have followed through on their commitments to obtain all available pilot records to evaluate new applicants' airmen qualifications and safety records. According to FAA data from 2012 to 2014, air carriers submitted fewer than 8,000 requests for more extensive FAA pilot records, compared to more than 20,000 requests for limited records available under the Pilot Records Improvement Act of 1996 (PRIA).⁴ Our recent audit found that six of the nine air carriers we reviewed did not obtain pilot records outside of PRIA. While FAA has agreed to take actions on our recent recommendations to address these deficiencies, most remain unimplemented.

The availability of pilot data and aircraft information—especially as it relates to aircraft owned under non-U.S. citizen trusts⁵—and the security of pilot data maintained by FAA also remain major concerns. We first reported concerns about information availability in June 2013; and in January 2014, we issued a management advisory to alert the Federal Aviation Administrator of additional work we conducted that underscored the need to take action on recommendations we made 7 months earlier. We determined that aircraft owned under trust arrangements are not always registered per FAA requirements. Some trustees we contacted could not or would not provide information on aircraft they own. Regarding security, we reported in 2013 that FAA lacked effective processes to safeguard sensitive data and an adequate plan to recover data in its Civil Aviation Registry system after a disruption. We recommended several actions to close these oversight gaps, including data encryption and system vulnerability mitigation, but FAA recently pushed out its target implementation date to the end of 2016—41 months after we first recommended action.

Our investigations have uncovered numerous fraud schemes that demonstrate the ways in which gaps in airman data oversight can be exploited and can compromise safety. Delays in establishing useful and secure pilot databases, along with other oversight weaknesses,

⁴ The Pilot Record Improvement Act of 1996, Pub. L. No. 104-264, Title V, October 9, 1996, requires airlines to request 5 years of training records; DOT drug and alcohol test results from previous employers; basic certificate and medical information from FAA, including enforcement actions taken against the pilot; and any violations reported to the national driver registry.

⁵ FAA regulations permit trustees and non-U.S. citizens to register their aircraft by setting up trusts. To do this, an aircraft owner (or trustor or grantor) creates an agreement to transfer the aircraft's title to a trustee that is a U.S. citizen. The trustee—who may be an individual or an organization—registers the aircraft under his, her, or its name. The agreements we reviewed, however, provide little substantive information identifying the trustor, beneficiary, or person(s) who can use the aircraft. The trustor and the beneficiary are frequently the same person.

create opportunities for unscrupulous individuals to fraudulently obtain or renew airmen certificates. These individuals often lack the knowledge and skills or are physically or mentally unqualified to operate or work on aircraft. Fraudulent certificates have also been used in smuggling, human trafficking, and other criminal activities. Since fiscal year 2015, OIG has opened 64 aviation safety investigations—24 of which primarily focused on certificate fraud and involve falsified FAA medical certificates—and has closed 9 investigations that resulted in sentencing and financial recoveries.

A ROBUST, CENTRALIZED DATABASE FOR PILOT RECORDS REMAINS YEARS AWAY

As we reported in August 2015, FAA has made limited progress in responding to Congress' 2010 mandate. According to FAA officials, the Agency opted to allocate resources to other requirements in the act that, unlike the PRD, had stated deadlines—such as raising standards in pilot training and performance and improving rest requirements. While these were important safety initiatives, we found that FAA had not issued a PRD rulemaking or made critical decisions regarding historical records, carriers' transition to the new database, and records retention—substantive steps in establishing a PRD. Further, FAA has not ensured air carriers obtain all available pilot records to evaluate new applicants' airman qualifications and safety records.

Delays in Executing a Rulemaking Have Stalled PRD Implementation

To require carriers to provide records for the PRD database and fulfill the act's mandate, FAA launched a rulemaking initiative. However, in the year prior to the issuance of our 2015 report, FAA delayed the publication date for a Notice of Proposed Rulemaking (NPRM) four times and does not expect to publish a final rule before 2017—7 years after the mandate was enacted. FAA is also considering extending the PRD's implementation period, which could allow air carriers until 2023 to achieve full compliance with the rule.

At the time of our report, FAA's work was primarily limited to basic database design. According to FAA, rulemaking is necessary to establish requirements for inputting pilot records, and the Agency will not select a contractor to develop the database until an NPRM is published. Regardless, certain actions could be taken without a rulemaking, such as consolidating existing databases to streamline carrier requests for data. Currently, carriers must contact two FAA offices—one that manages pilot certification data and one that manages accident, incident, and enforcement information—to obtain background information on a pilot's qualifications, experience, and safety record.

With so many delays and uncertainties, the PRD's final cost remains unknown. A small-scale demonstration project conducted in 2012⁶ cost \$3.8 million, and FAA estimated that additional development costs will range from \$4 million to \$9 million, with operating

⁶An FAA contractor developed and tested processes for inputting and retrieving pilot records to determine database design feasibility.

costs ranging from \$11 million to \$27 million for the first 10 years. In addition to these broad estimates, industry feedback to the rule will likely necessitate major and potentially costly changes to the design.

Challenges Regarding Historical Airman Records Remain Unresolved

While FAA has begun to take action by proposing certain records should be in the database, including those documenting the outcome of training and evaluation events, several unresolved records-related challenges could further hamper FAA's efforts to fully implement the PRD in the foreseeable future:

- FAA has yet to decide how to lessen the “paperwork burden” on air carriers, particularly in obtaining and inputting pilot data as far back as 2005, as the act requires. Most air carriers use electronic recordkeeping systems, but some still have paper-based systems or archive older records, making them more difficult to retrieve.
- FAA has not determined how to capture comprehensive training information on individual pilots. For example, under the Advanced Qualification Program, instructor comments are aggregated for analysis to identify performance trends across the entire program without identifying individual pilots. In contrast, traditional training programs may maintain instructor comments in pilots' individual training records.
- FAA has yet to determine how to transition from current recordkeeping practices mandated by PRIA—which provides limited information from the previous 5 years—to the new rule's requirements. Once FAA issues its PRD rule, carriers will be required to undertake extensive record retrievals and submit all pilot records dating back to 2005—a process that could take several years, according to FAA. In addition, FAA has not developed a process for how carriers can retrieve pilot records during the multi-year transition period between when the final rule is issued and when the database is implemented.
- During our most recent review, we found that FAA inspectors had not sufficiently evaluated whether air carriers are retaining pilot training records for future inclusion in the PRD. In January 2013, we recommended that FAA inspectors determine whether carriers changed their policies in accordance with FAA guidance issued in August 2011 for retaining and submitting pilot training records for the new database.⁷ While FAA concurred with our recommendation, it took nearly 2 years to inform inspectors that they must review and evaluate air carrier training records to ensure that the appropriate records are retained. Additionally, we determined that three of the nine carriers we visited had not updated their policies to ensure they were keeping records as required by the act. FAA has since notified carriers that have yet to change their policies. Regardless, records that are more than 5 years old—the length of time

⁷ *FAA and Industry Are Advancing the Airline Safety Act, but Challenges Remain To Achieve Its Full Measure* (OIG Report No. AV-2013-037), January 31, 2013.

carriers were required to maintain records prior to the act—may be lost or inaccessible through the new database.

- Finally, FAA does not have procedures to secure records on pilots’ past performance when carriers stop operating. In the 4 years following the act’s passage, more than 750 companies, including commercial carriers, have ceased operations and no longer hold an FAA certificate. In these cases, hiring carriers can use a “Good Faith Exception,” which allows them to hire a pilot when records are not available. Eight of nine air carriers we visited encountered instances when records from previous employers were not available; however, FAA officials did not know how often carriers rely on the exception when hiring pilots.

Air Carriers Continue To Rely on Limited Pilot Records To Evaluate New Applicants

During FAA’s 2009 Call to Action on Airline Safety, air carriers committed to request pilot records beyond those required by PRIA. Air carriers, with a pilot’s consent, can obtain additional records from FAA through Privacy Act or Freedom of Information Act (FOIA) requests. Information in these additional records would go beyond 5 years and include closed enforcement actions, accident/incident information, and notices of disapproval for failed FAA flight tests (see table).

Table. FAA Airman Data Available Through Air Carrier Requests

	PRIA	Privacy Act	FOIA
Airmen Certificate / Medical Certificate	✓		
Closed Enforcement Action	✓	✓	✓
Notices of Disapproval		✓	✓
Accident / Incident Information		✓	✓

Source: OIG analysis

However, as we reported last August, many carriers continue to rely on records requested through PRIA. Between 2012 and 2014, requests for additional records from Part 121 carriers⁸ totaled 7,978, compared to a total of 20,693 PRIA requests, and six of the nine air carriers we visited did not request additional records from FAA when hiring pilots. While FAA communications encourage carriers to request additional records, FAA has not followed up with air carriers to determine whether they implemented new policies to obtain all available records. Further, FAA has not developed its portion of the database—an action that could have an immediate impact, especially in providing hiring carriers streamlined access to these additional records. Overall, while FAA agreed to take action on our three recommendations for better ensuring that air carriers have all available

⁸ 14 CFR Part 121, Operating Requirements: Domestic, Flag, and Supplemental Operations. Carriers that operate larger aircraft with primarily scheduled flights.

information on a pilot's training records, two of the three recommendations remain unimplemented.

FAA'S CIVIL AVIATION REGISTRY REMAINS INCOMPLETE AND VULNERABLE TO HACKERS

In June 2013, we reported that FAA's Civil Aviation Registry lacks complete and accurate information on registered aircraft, owners, and their compliance with FAA regulations—including those that require owners to periodically update or correct the information in their registry records. Notably, more than half of the registry records for an estimated 5,600 aircraft owned under trusts for non-U.S. citizens lacked information such as the identity of the trustors and aircraft operators. Without this information, FAA cannot verify compliance with international aviation requirements to provide complete information to foreign authorities when U.S. registered-aircraft are involved in incidents in their countries. FAA's registry similarly lacks complete information on pilot certifications, limiting law enforcement's ability to conduct security screenings required by the Intelligence Reform and Terrorism Prevention Act of 2004 (IRTPA) or to detect pilots who provide false information.

We also reported that FAA does not (1) routinely monitor access to sensitive data or comply with DOT policies and Federal requirements aimed at preventing unauthorized access to personally identifiable information (PII) or (2) have a Registry recovery plan that meets DOT's information technology (IT) security policy requirements to ensure system recovery after a disruption. FAA has yet to fully address key recommendations we made in 2013, including a recommendation to encrypt PII and mitigate the vulnerabilities on Registry computers. FAA provided a revised target action date to implement this recommendation by the end of 2016.

Security gaps in FAA's pilot databases create substantial safety risks, and strain critical resources, as evidenced by our investigation of a foreign national who in 2008 hacked into FAA's Airman Services Records System—an online database used by FAA to monitor and regulate persons authorized to fly aircraft—and stole a pilot's PII. The hacker used this information to illegally obtain an airmen certificate and flight instructor certificate, as well as a bank account and a U.S. passport, in the pilot victim's name. After charges were filed, the perpetrator fled the country. While in possession of the fraudulent certificates, he crashed an airplane in Bornholm, Denmark; he returned to Iran to evade criminal charges in Denmark and Germany, and later resurfaced in Indonesia. In 2014, he was arrested in Panama and extradited back to the United States and in 2015, was sentenced to 27 months of incarceration for stealing the identity of a U.S. pilot.

To help remediate deficiencies and better ensure integrity of the registry's data, we recommended that FAA periodically assess the accuracy, security, and reliability of aircraft and airman data. However, in our follow-up work, in which we contacted the five

trustees with the most registrations, we continued to find that FAA lacked sufficient or readily available information on numerous aircraft owned under non-U.S. citizen trusts to fully meet its aviation safety mission. These concerns prompted us to issue a management advisory to the Federal Aviation Administrator in January 2014. Almost 2 years later, seven of the eight recommendations we made remain open.

CERTIFICATE FRAUD SCHEMES EXPLOIT AIRMAN DATA OVERSIGHT GAPS AND COMPROMISE SAFETY

As evidenced in the foreign national case, delays in establishing a useful pilot records database, along with backlogs of applications and a number of oversight weaknesses, create opportunities for unscrupulous individuals to fraudulently obtain airmen certificates. Individuals who fraudulently obtain or renew airmen certificates significantly compromise safety, as they often lack the knowledge and skills or are physically or mentally unqualified to operate or work on aircraft. Fraudulent certificates have also been used to conduct criminal activities, such as smuggling and human trafficking.

Since October 1, 2014, OIG has opened 64 aviation safety investigations, 24 of which primarily focused on certificate fraud involving commercial airmen, mechanics, repair stations, flight instructors, and air carriers. Currently, the majority of our airmen investigations involve falsification of FAA medical certificates. Several recent cases demonstrate the extreme measures fraudsters will take to secure and misuse FAA-issued airmen and medical certificates—and the risks they pose to air safety:

- A Colorado physician presented a false FAA medical certificate during a pilot compliance check at Lakefront Airport in New Orleans, and piloted an aircraft that FAA later determined unsafe for continued flight. His authentic pilot license expired in 2007, but he presented one with a fraudulent issue date in 2013. In May 2015, he was sentenced in U.S. District Court, New Orleans, LA, to 12 months of probation.
- A North Carolina pilot operated an aircraft without an airmen certificate, falsely claimed he was an aircraft mechanic, and provided an FAA inspector with an aircraft mechanic certificate number belonging to someone else. In March 2015, the pilot was sentenced in U.S. District Court, Charlotte, NC, to 2 months in jail and a \$5,000 fine for operating an aircraft without an airmen certificate and lying to FAA. He was also ordered to sell his airplane and not enter an airport, except to fly as a commercial passenger, for 3 years.
- While flying his plane from Virginia to Maryland, a Maryland man was forced to make an emergency landing after the aircraft ran out of fuel, and crashed in a field near a major roadway and the University of Maryland Eastern Shore campus. After FAA determined his airmen certificate had been revoked due to several alcohol-related offenses, FAA referred the investigation to OIG. In 2015, the man was

sentenced to 3 years of probation and other penalties for flying without a pilot certificate.

- Over several years, a New York man used fraudulent airmen and medical certificates to obtain employment as a television news helicopter pilot in California, and later as a helicopter pilot for an air ambulance service in New York. To gain employment as a television news helicopter pilot, he used his real name but submitted fraudulent temporary airmen and medical certificates. To gain employment with the air ambulance service in New York, he stole the identity of a former co-worker; he also created a fraudulent U.S. passport using the former co-worker's identity. By obscuring his true identity, he prevented FAA from knowing that he had previously been convicted of making false statements to FAA regarding his medical certificate and student pilot certificate. In 2014, he was sentenced to 24 months of incarceration, \$42,000 in restitution, and other penalties for identity theft and using a fraudulent airmen and medical certificate to operate aircraft.
- In 2004, FAA issued an emergency revocation of a Florida man's airmen certificate after he tested positive for the presence of marijuana, a prohibited drug, while seeking employment as an air taxi pilot in Fort Lauderdale. However, OIG's investigation revealed that from 2012 to 2014, while he was employed as an air carrier Pilot in Command, he falsely attested to FAA that he had never failed a drug test. In 2015, he was convicted by a Federal jury and sentenced to 3 years of probation and other penalties for making false statements on an FAA airmen medical certificate application.
- A commercial pilot from Washington State failed to establish contact with the FAA Seattle Air Route Traffic Control Center and lined up for the wrong runway on approach. The local airport police administered a breathalyzer test, which resulted in a reading of 0.109, more than twice the legal limit of 0.04. In 2013, the pilot was sentenced to 4 months of home confinement, 2 years of probation, and other penalties for flying a commercial aircraft while under the influence of alcohol.

Since October 1, 2014, we closed 9 investigations that resulted in sentencing of 53 months in incarceration and over \$179,000 in financial recoveries.⁹ In addition, OIG investigations have resulted in specific FAA regulatory enforcement actions—including the suspension, disqualification, and cancellation or revocation of airmen certificates—which help deter this type of fraud.

⁹ OIG partners with FAA to obtain referrals of suspected criminal violations of FAA regulations and Federal laws related to pilot and airmen certification, and with the U.S. Department of Justice to prosecute offenses.

CONCLUSION

Ensuring air carriers have the information needed to thoroughly vet airmen is an inherently complex undertaking—one that involves a range of Government and industry stakeholders. A rulemaking alone can take years. However, since 2013, we have reported multiple concerns regarding FAA’s pilot databases, and recommended timely action to address identified shortcomings. With the PRD now unlikely to be fully operational for another several years, it is particularly critical that FAA take action to better ensure air carriers retain airmen records and obtain records available through other sources when hiring pilots. Strengthening the Agency’s efforts to identify and mitigate certificate fraud will also remain vital.