FAA'S OVERSIGHT OF ON-DEMAND AIRCRAFT OPERATORS

(111–97)

HEARING

BEFORE THE

SUBCOMMITTEE ON AVIATION

OF THE

COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE HOUSE OF REPRESENTATIVES

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U.S. House of Representatives
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March 15, 2010

SUMMARY OF SUBJECT MATTER

TO: Members of the Subcommittee on Aviation

FROM: Subcommittee on Aviation Staff

SUBJECT: Hearing on "FAA's Oversight of On-Demand Aircraft Operators"

PURPOSE OF HEARING

The Subcommittee on Aviation will meet on Wednesday, March 17, 2010, at 2:00 p.m., in room 2167 of the Rayburn House Office Building to receive testimony regarding the Federal Aviation Administration's (FAA) oversight of on-demand aircraft operators.

BACKGROUND

On-demand aircraft operators represent a segment of the aviation industry that operates aircraft on a for-hire, on-demand basis. On-demand flights are unscheduled and operate at customers' request. Examples of on-demand aircraft operations include air tours and sightseeing flights, air medical flights, flights for passengers' business or personal travel, cargo flights, crop-dusting/agricultural operations, helicopter firefighting and electronic-news gathering flights, and helicopter flights to offshore oil rigs.[1] According to the Department of Transportation Inspector General (DOT IG), the on-demand aviation sector includes more than 2,300 operators and 9,000 aircraft.[2]

According to the DOT IG, between 1999 and 2009, there were 155 fatal on-demand accidents. A particularly bad year was 2008, where the National Transportation Safety Board (NTSB) reports that there were 56 on-demand accidents involving 66 fatalities.[3] On July 13, 2009,

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[1] Air Charter Safety Foundation, *Part 135 Accident/Incident Review*, 2004-2008.
[2] DOT IG, *On-Demand Operators Have Less Stringent Safety Requirements and Oversight than Large Commercial Air Carriers*, (July 13, 2009) at 3.
[3] Press release, NTSB, Aviation Accident Statistics for 2008 Show 'Mixed Picture' (April 2, 2009).

the DOT IG issued a report that raised concerns with FAA oversight of on-demand operators. The DOT IG's audit found that, between 2000 and 2008, the fatal accident rate for part 135 on-demand operators was 50 times greater than the accident rate for scheduled air carriers.[4] The smallest aircraft operated under part 135 have the highest accident rate: between 2003 and 2008, 78 percent of all fatal accidents in the on-demand sector involved aircraft seating nine or fewer passengers.[5]

The DOT IG attributes the comparatively high accident rate for on-demand flights to the following factors: (1) flights are operated in higher-risk environments than scheduled commercial operations, (2) operators do not have to meet many of the regulatory requirements that large, commercial carriers must follow, and (3) the FAA's oversight strategy for on-demand operations is deficient. The DOT IG issued several recommendations to the FAA in its July 2009 report, and the NTSB lists 16 recommendations to the FAA as "open" with "unacceptable response[s]." In 2003, the FAA formed an aviation rulemaking committee (ARC), which included industry stakeholders, to conduct a comprehensive regulatory review of FAA regulations pertaining to on-demand operations. In 2005, the ARC came to consensus and issued 124 recommendations to the FAA. Although regulatory action was underway on several items, the FAA reports that its priorities since shifted. The FAA has not yet issued any final rules implementing these recommendations.

I. <u>On-Demand Operating Environment</u>

On-demand operators fly a wide variety of aircraft that include single- and twin-engine airplanes, piston airplanes, turboprop airplanes, jets, floatplanes, aircraft with skis instead of traditional landing gear, and helicopters. The operators fly these aircraft over contrasting topography and on diverse missions, from helicopter tours over Hawaiian volcanoes to bush flights in Alaska to charter flights for business travelers between small towns.[6] Eighty-five percent of aircraft in the on-demand fleet have nine or fewer seats.[7]

Part 135 of title 14 of the Code of Federal Regulations (C.F.R.) governs commercial operations of unscheduled on-demand flights and scheduled commuter flights.[8] Part 135 imposes a stricter set of regulatory requirements than the basic part 91 operating requirements for general aviation users of the national airspace system. Scheduled commercial airlines operate under part 121, which sets out the strictest set of operating regulations.

Compared to scheduled commercial air carriers, on-demand operators often fly less predictable flight operations. For example the flight/mission profile for part 121 air carriers is more uniform, whereas part 135 operators carry out a wide range of missions, operating a wide array of aircraft in varying environments and airports. These differences in flight/mission profiles are risk factors, which may, in part, explain why on-demand operations are susceptible to a much higher accident rate than part 121 operations.

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[4] DOT IG, *supra* note 2, at 13.
[5] *Id.* at 15.
[6] *Id.* at 12-13.
[7] *Id.* at 9.
[8] According to the DOT IG, commuter operators, which conduct scheduled operations with aircraft with nine or few seats comprise only three percent of part 135 operators. For the purposes of focusing on the on-demand industry, part 135 commuter operations will be excluded from the discussion in this memo.

- **Weather-Related Risks.** Unlike commercial jet aircraft, which cruise above most weather, smaller aircraft operating on-demand flights cannot always climb above weather and must fly in the clouds. Therefore, on-demand aircraft are significantly exposed to icing-related hazards because of the amount of time they spend in weather that can produce icing conditions. Furthermore, weather information is not always as readily available to pilots operating these aircraft as it is for those operating in the scheduled commercial airlines. The FAA, however, has efforts underway to improve available weather information.

- **Airspace-Related Risks.** Many flights conducted under part 135 take off from and land at uncontrolled airports (i.e., without air traffic control towers).[9] In a controlled airport environment, air traffic controllers ensure separation among aircraft in the local area near the airport. Controllers also provide weather and safety advisories.[10] These types of advisories and alerts greatly enhance the margin of safety for takeoffs and landings and help pilots detect potentially unsafe conditions with sufficient time to avoid them or recover.

  Helicopters generally operate in an environment away from airports, at low altitudes, in uncontrolled airspace. Most of the helicopter on-demand segment do not have the benefit of the same infrastructure that commercial airlines utilize, including flying under instrument flight rules (IFR), which allows a pilot to rely on aircraft instruments to avoid other aircraft. IFR is used when visibility and/or weather is poor. Helicopter pilots must often operate according to visual flight rules (VFR), relying solely on visual cues to avoid other aircraft; this is commonly known as "see and avoid." In addition, helicopters operating under part 135 may not consistently maintain radio communications with the air traffic control (ATC) or receive separation services.

  Widespread use of new technology, such as automatic dependent surveillance-broadcast (ADS-B), which is currently being used to follow helicopter flights between the Gulf Coast and offshore oil rigs, could address the problems caused by lack of radar coverage and ATC service. Additionally, much of the national airspace system is not equipped with infrastructure for helicopters to conduct precision IFR landing approaches using global positioning systems (GPS). Some operators and industry groups have developed GPS approaches to helipads to allow the pilot to operate under IFR.

  Additionally, in some cases, on-demand operators may fly through "exclusion areas," in which aircraft can transit through or under busy airspace around major airports without communicating with ATC.[11] On-demand operators may also fly in special flight rules areas (SFRAs), where operating rules and restrictions differ, in some respects, from normal rules that govern the airspace.[12]

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[9] DOT IG, *supra* note 2, at 12.

[10] *See generally* FAA, Order JO 7110.65T (2010).

[11] Prior to the August 8, 2009, midair collision over the Hudson River in New Jersey between a helicopter air tour flight and a Piper general aviation airplane, the Hudson River airspace was previously designated as a class B airspace exclusion area. FAA, *Background: Air Traffic Procedures in the Hudson River Corridor* (Aug. 11, 2009).

[12] *See* 14 C.F.R. § 93. As a result of the August 8, 2009, midair collision over the Hudson River, the FAA established a new SFRA for the Hudson River airspace. SFRAs also include the airspace vicinities of Los Angeles International Airport, the Grand Canyon National Park in Arizona, and the Washington, DC Area.

- **Crews' Potential Unfamiliarity with Airports.** According to the DOT IG, another risk factor associated with on-demand operations is pilots' possible unfamiliarity with the airports they serve.[13] Scheduled air carriers serve approximately 500 U.S. airports,[14] with aircrews consistently operating into, and becoming routinely familiar with, particular airports over multiple visits. On-demand operators, in comparison, may serve any of the approximately 5,200 civil public-use airports in the country,[15] increasing the likelihood that a pilot's approach to a particular airfield may be his or her first experience operating there.

- **Risks Associated with Limitations in Cockpit Instrumentation.** According to the DOT IG, pilots of aircraft operating on-demand flights may, in many cases, lack the modern cockpit tools that help them maintain situational awareness.[16] The DOT IG found that aircraft operating on-demand flights are often not equipped with advanced avionics and instrumentation that help a pilot avoid potential hazards to flight such as terrain and other traffic.[17] However, the industry maintains that aircraft do not need some of the advanced instrumentation available if aircraft are only operating under VFR. The NTSB has also recommended improvements to the flight instruments of those aircraft.[18]

- **Aircraft Age-Related Risks.** The on-demand fleet is also older, on average, than that of commercial airlines. Citing data provided by the FAA, the DOT IG reported that, while commercial air carriers' aircraft are slightly more than 10 years old on average, 60 percent of the on-demand fleet is more than 20 years old.[19] Aircraft age affects, among other things, maintenance requirements and intervals.

II. Regulations

The part 135 regulations have not been substantially updated since FAA promulgated them in 1978. The DOT IG raised concerns that on-demand operators fall under a weaker regulatory regime than part 121 operators and that shortcomings in the part 135 regulations may have an adverse safety impact. In particular, the DOT IG found that the part 135 regulations are lacking in areas such as flight crew requirements, maintenance, and technology requirements. The on-demand industry has stressed that the stricter part 121 regime for commercial air carriers cannot be imposed on the on-demand industry because of the diversity of aircraft types, missions, fleet sizes, and

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[13] DOT IG, *supra* note 2, at 4.
[14] DOT IG, *supra* note 2, at 3.
[15] FAA, "Administrator's Fact Book," (Aug. 2009) at 16.
[16] Situational awareness is defined as "the accurate perception and understanding of all the factors and conditions going on around you. In aviation, this deals with . . . the pilot, the aircraft, the environment, and the type of operation that comprise any given aviation situation." Dr. Ira Blumen, Air Medical Physician Handbook, A Safety Review and Risk Assessment in Air Medical Transport (Nov. 2002), at 52.
[17] DOT IG, *supra* note 2, at 12-13.
[18] *See, e.g.*, NTSB, "Loss of Control and Impact With Terrain, Aviation Charter, Inc., Raytheon (Beechcraft) King Air A100, N41BE," AAR-03/03 (adopted Nov. 18, 2003) (recommending that industry stakeholders evaluate feasibility of installing low-speed cues on airspeed indicators of part 135 aircraft). However, the NTSB recently found that small piston-powered glass cockpit airplanes manufactured between 2002 and 2006 had no better overall safety record than airplanes with conventional instrumentation. The NTSB noted that pilots need additional and enhanced training on the use of electronic flight instruments. Press Release, NTSB, NTSB Study Shows Introduction of 'Glass Cockpits' in General Aviation Airplanes has not Led to Expected Safety Improvements (Mar. 9, 2010).
[19] DOT IG, *supra* note 2, at 8.

operating environments among on-demand operators. The industry has, however, supported a substantial update to part 135, as recommended by the FAA's 2005 ARC.

A. Training

The DOT IG reports that 70 percent of on-demand fatal accidents conducted under part 135 have been attributed by the NTSB to pilot error, suggesting many pilots may lack the training, experience, or tools needed to successfully manage the inherent risks inherent in the on-demand environment. The DOT IG found that under FAA regulations, on-demand pilots are required to have less training and experience, and in some cases, less certification, than their commercial airline counterparts. Pilots flying under part 135 are required to hold a commercial pilot certificate, which requires a minimum of 250 flight hours. Scheduled air carriers often require pilot applicants to have accumulated well in excess of 250 flight hours and additional certifications.

In addition, according to the DOT IG's report, pilots employed by on-demand operators, unlike their part 121 counterparts, are currently not required to undergo training in crew resource management (CRM). CRM entails procedures and practices for improving communications between and among pilots and other crewmembers, while taking into account human factors, hardware, and information.[20] One of the NTSB's "Most Wanted" aviation safety improvements is to require on-demand air taxi flight crews to receive CRM training. On May 1, 2009, the FAA published a notice of proposed rulemaking (NPRM) to require all part 135 operators to include CRM in their training programs for pilots and flight attendants. Comments to the NPRM closed on September 28, 2009.

Another risk factor that is common to all aviation operating environments is pilot fatigue. Under part 135, flight crews must have adequate rest, with a maximum duty time of 14 hours and flight time not to exceed eight hours during any 24-consecutive-hour period. However, a positioning flight (a flight to ferry an airplane from one airport to another without any passengers on board) can be flown according to part 91 regulations, which do not impose formal flight and duty time limits. For example, if a pilot just completed a 14-hour duty day under part 135 by dropping off passengers, the pilot could then ferry the airplane to another airport base without a time restriction under part 91.[21] In addition, in some specific on-demand environments, such as helicopter air ambulance, pilots work demanding, and often erratic, schedules that alternate between long day or night shifts, followed by required rest periods. The FAA does not currently have a rulemaking underway for flight and duty time that addresses the unique operating environment of part 135 operations.

The DOT IG also observed limitations in training requirements for on-demand cabin crew. Cabin aides on aircraft with less than 20 seats are not required to undergo safety training as certified flight attendants. In a 2005 accident investigation, the NTSB found that a "cabin aide's training did not adequately prepare her to perform the duties with which she was tasked, including opening the

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[20] Department of Transportation/FAA, Crew Resource Management Training, AC 120-51E (Jan. 22, 2004).
[21] NTSB, *Special Investigations Report on Emergency Medical Services Operations* 2 (2006). *See* NTSB Safety Recommendations A-94-194 and A-95-113 regarding fatigue–both are "Open—Unacceptable Response." Section 816 of H.R. 915, the "FAA Reauthorization Act of 2009" requires the FAA to conduct a rulemaking to require that all flight time under part 91 be included in a flight crewmember's total flight time limitations under part 135.

main cabin door during emergencies."[22] In response to that accident and the NTSB's findings, the FAA issued a Safety Alert for Operators (SAFO) to remind pilots operating under part 135 to alert passengers to the fact that unless there is a fully certified flight attendant onboard, the pilots will perform all safety-related functions on the aircraft.

As to training for FAA inspectors, the Professional Aviation Safety Specialists (PASS), the employee union that represents aviation safety inspectors, has indicated concerns that inspectors assigned to oversee on-demand operators do not receive adequate training to conduct sufficient oversight of those operators. The Government Accountability Office (GAO) also raised specific concerns with inspector training for helicopter air ambulances. GAO found that the FAA needs inspectors who are trained to certify new safety technologies, such as night vision imaging systems, on helicopter air ambulances.[23]

B. Maintenance

The Aging Aircraft Safety Act of 1991[24] required certain aircraft to undergo inspections after 14 years in service, except those engaged in on-demand operations. The DOT IG believes that enhanced inspections should be performed after 14 years in service regardless of the regulatory framework under which those aircraft are operated.[25] In addition, the DOT IG notes that FAA's regulations governing maintenance are more stringent for on-demand aircraft with 10 or more seats, meaning a large percentage of on-demand operators – roughly 85 percent[26] – receive less inspection. For example, on-demand operators with aircraft having 10 or more seats are required to have an internal maintenance and inspection evaluation program called Continuing Analysis and Surveillance System (CASS).[27]

In addition, aircraft with 10 or more seats must undergo inspections of required inspection items, which are "mandatory maintenance activities that . . . must be independently inspected by a specially trained inspector after the work is complete." FAA inspectors are still required to inspect certain aircraft items at certain intervals, but neither CASS nor required inspection items are mandatory for aircraft with less than nine seats, the DOT IG concluded.[28] Furthermore, operators conduct routine aircraft inspections per manufacturers' specifications, often time exceeds the FAA-required inspection minimums.

C. Technological Requirements

Some technological requirements that are beneficial to commercial airlines operating under part 121 are not always helpful in the part 135 on-demand environment. However, the DOT IG

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[22] In this accident, the NTSB recommended the following: Require that any cabin personnel on board 14 C.F.R. part 135 flights who could be perceived by passengers as equivalent to a qualified flight attendant receive basic FAA-approved safety training in at least the following areas: preflight briefing and safety checks; emergency exit operation; and emergency equipment usage. (A-06-69) NTSB, *Runway Overrun and Collision, Platinum Jet Management, LLC, Bombardier Challenger CL-600-1A11, N370V, Teterboro, New Jersey, February 2, 2005*,. AAR-06/04 (adopted Oct. 31, 2006).
[23] GAO, *Improved Data Collection Needed for Effective Oversight of Air Ambulance Industry*, (2007) at 5.
[24] P.L. 102-143 (1991).
[25] DOT IG, *supra* note 2, at 8.
[26] *Id.* at 9.
[27] 14 C.F.R. § 135.431 (2009).
[28] DOT IG, *supra* note 2, at 8.

identified technology that is required for aircraft operating under part 121, but not always required for on-demand operators under part 135. One example is the terrain awareness and warning system (TAWS), which enhances pilot situational awareness and helps prevent collisions with terrain. The system is not required for non-turbine powered aircraft or for aircraft with fewer than six passenger seats, which operate on-demand services.[29] However, the NTSB has recommended that TAWS be installed on all aircraft performing air ambulance services.

Similarly, according to the DOT IG, a substantial number of on-demand aircraft are not equipped with flight data recorders (FDRs) and cockpit voice recorders (CVRs) that provide important information to accident investigators on the causes of accidents and how to prevent similar events in the future. Although the FAA has not required many of these items, it has offered operators that have chosen to install them guidance for implementation.

D. Dispatch and Flight-Following

The DOT IG further found that most on-demand flights are operated without dispatchers that utilize flight-following systems to monitor progress of airborne flights and to advise pilots of hazardous weather or other operational hazards.[30] Part 121 carriers must use such systems;[31] part 135 operators are not required to follow the progress of airborne flights, although they must implement flight-locating systems to locate missing or overdue aircraft whose crews did not file FAA flight plans.[32] The DOT IG cited one on-demand accident investigation in which it concluded that a dispatcher's guidance could have prevented faulty decision-making by the crew and loss of life.[33] The NTSB has also made several recommendations relating to using formalized dispatch and flight-following procedures, including a formal dispatch risk assessment plan.[34]

E. FAA's Aviation Rulemaking Committee

In 2003, the FAA formed a part 135/125 ARC to conduct a comprehensive regulatory review of a wide array of FAA regulations. The ARC was tasked with reviewing and providing advice and recommendations, in part, on the following: (1) resolve current issues affecting this part of the industry; (2) enable new aircraft types, sizes, and designs and new technologies in air transportation operations; (3) provide safety and applicability standards that reflect the current industry trends and emerging technologies and operations; and (4) address international harmonization and International Civil Aviation Organization standards. In September 2005, after two years of work, the ARC submitted 124 recommendations to the FAA. According to the DOT IG, the FAA has not issued any final rules relating to the 124 ARC recommendations. However, the FAA has issued an NPRM for CRM requirements; and plans to issue an NPRM shortly for helicopter air ambulance operations.

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[29] 14 C.F.R. § 91.223 (2009).
[30] DOT IG, *supra* note 2, at 7.
[31] *See* 14 C.F.R. § 121.601 (2009) (requiring dispatchers to perform flight-following functions for part 121 operations); *see also id.* at § 121.107 (2009).
[32] 14 C.F.R. § 135.79 (2009).
[33] DOT IG, *supra* note 2, at 6.
[34] *See, e.g.*, NTSB Recommendations A-09-131 and A-09-132 (Nov. 13, 2009); A-06-013 and A-06-014 (Feb. 7, 2006).

III. Oversight and Safety Enhancements

A. FAA

1. National Flight Standards Work Program Guidelines

The FAA utilizes its inspector workforce, which follows the FAA's National Flight Standards Work Program Guidelines (NPG), to oversee on-demand operators. The NPG sets forth required inspection activities that all inspectors must perform nationwide. The NPG items are not risk-based, but rather are determined on a national level using basic operator information. Inspectors must complete required inspection activities and may inspect operators on additional items if the inspectors believe additional oversight is required. However, the DOT IG notes that inspectors, because of their workload, may not have time to inspect items outside of the required list. The DOT IG has also raised concerns that the number of on-demand operators and aircraft assigned to individual inspectors is greater than that assigned to inspectors on commercial airline certificates. The DOT IG reports that, because of these issues, operators of aircraft with nine or fewer passenger seats, which have experienced more than a third of fatal on-demand accidents, receive less required inspections than those with 10 or more seats.

2. Data and Risk-Based Programs

The DOT IG notes that the FAA's oversight system is not risk-based as it is for part 121 operators, for which the FAA developed the Air Transportation Oversight System (ATOS). The DOT IG notes that the FAA cannot fully implement a risk-based oversight system because the FAA does not require that operators report data, including the number of operations (takeoffs and landings), number of flight hours, and number of passengers. In 2003, the NTSB recommended that FAA require nonscheduled part 135 operators to report activity data annually.[35]

The FAA is planning a new risk-based oversight system, called System Approach for Safety Oversight (SASO). SASO is described as a risk-based system that will apply inspector resources to the highest-risk areas. Since the system will not be implemented until at least 2013, the DOT IG recommended that the FAA implement an interim risk-based system for on-demand operators. Specifically, the DOT IG recommended that the FAA evaluate two tools, which it has already piloted. One is the Surveillance Priority Index (SPI), which has been used in Alaska to prioritize inspections of on-demand operators there based on risk. That system utilizes data from the Safety Performance Analysis System (SPAS), a computer-based repository of data from FAA inspectors and air carriers on accidents, incidents, violations of regulations, and inspections. Based on analysis of that data, the system produces a score for inspectors to prioritize their oversight activities.

However, the DOT IG found that, in general, use of these risk-based tools by inspectors is neither standardized nor common. In some cases, the DOT IG found, inspectors did not have knowledge of available tools. The FAA reports that it has encouraged inspector use of the SPI and that it is considering requiring its usage. The FAA also has a Surveillance and Evaluation Program that was added to the NPG to conduct risk assessments. In addition, the FAA has established specific safety inspectors to oversee helicopter air ambulances and some other types of helicopter

[35] *See* NTSB Recommendation A-03-037.

operators. The FAA reported that it recently hired 12 safety inspectors dedicated to helicopter air ambulance operators.

B. Industry

The on-demand industry has voluntarily undertaken several initiatives to help improve safety and oversight. The National Air Transportation Association (NATA), for example, created the Air Charter Safety Foundation (ACSF), to enhance the safety of charter operations. The Foundation developed an ACSF Industry Audit Standard (IAS), an independently-conducted audit that evaluates each participating operator's Safety Management System (SMS)[36] and compliance with part 135 regulations. In addition, the Foundation developed a data-driven software program for on-demand operators to submit safety information and realize potential safety solutions.

Other tools have been developed to assist on-demand operators flying to unfamiliar locations. For example, NATA developed an online tool with an FAA grant for pilots to better understand the Teterboro airport in New Jersey and its air traffic control procedures. In addition, the Helicopter Association International worked closely with the FAA to initiate and fund ADS-B in the Gulf Coast, to allow helicopters flying to oil platforms in the Gulf of Mexico to now have GPS-based ATC coverage.

WITNESSES

The Honorable Calvin L. Scovel, III
Inspector General
U.S. Department of Transportation

Ms. Margaret Gilligan
Associate Administrator for Aviation Safety
Federal Aviation Administration

Mr. Edward M. Bolen
President and Chief Executive Officer
National Business Aviation Association

Mr. Matthew S. Zuccaro
President
Helicopter Association International

Mr. James K. Coyne
President
Air Charter Safety Foundation

[36] SMS is essentially a risk management approach to managing safety oversight. It provides the framework to support a strong safety culture within an organization. SMS uses the tools of monitoring, assessment, corrective action, identification of problems/risks, and auditing.

HEARING ON FAA'S OVERSIGHT OF ON-DEMAND AIRCRAFT OPERATORS

Wednesday, March 17, 2010,

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON AVIATION,
COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE,
Washington, DC.

The Subcommittee met, pursuant to notice, at 2:00 p.m. in room 2167, Rayburn House Office Building, the Honorable Jerry F. Costello [Chairman of the Subcommittee] presiding.

Mr. COSTELLO. The Subcommittee will come to order.

The Chair will ask all Members, staff and everyone to turn electronic devices off or on vibrate.

The Subcommittee is meeting today to receive testimony regarding the FAA's oversight of on-demand aircraft operators. I will give a brief opening statement, call on Mr. Petri, the Ranking Member, to make any comments or give a statement, and then we will immediately go to witnesses.

I understand everything is subject to change around here, but I understand that we have votes right away, so we will wait and see.

I welcome everyone to the Subcommittee hearing today on the FAA's oversight of on-demand aircraft operators. On-demand aircraft operators represent a segment of the aviation industry that operates aircraft on a for-hire, on-demand basis. Their flights include air tours and sightseeing flights, air medical flights, flights for passenger business or personal travel, and helicopter flights to offshore oil rigs.

Part 135 of the Federal aviation regulations govern on-demand operators. In 2003, the FAA initiated an Aviation Rulemaking Committee to evaluate and make suggestions to update the regulations related to part 135. The ARC sent 124 recommendations to the FAA in 2005, many of which were related to the on-demand industry. To date, the FAA has not issued any final rules based on the ARC's recommendations.

In 2007 and 2008, there were 33 fatal on-demand accidents resulting in 109 deaths. In 2007, due to concerns about the fatal accident rate in the on-demand industry, Chairman Oberstar and I requested the Department of Transportation's Inspector General to review the on-demand industry and evaluate the FAA's oversight activities.

Specifically, we requested that the I.G., one, evaluate the differences between the FAA's regulation and on-site or on-demand operators versus larger commercial air carriers. Secondly, to identify specific issues that may hinder the FAA in its oversight re-

sponsibilities. And three, provide recommendations to improve the FAA's oversight of these operators.

The I.G. issued the first part of its report in July of 2009, and I understand the second report will be issued very shortly. Today, I look forward to hearing from the I.G. on its ongoing work in this area.

The first report raised a number of important issues. The I.G. found that on-demand operators operate in a high risk environment. This Subcommittee heard similar testimony last year concerning helicopter air ambulance operations, which often fly in challenging conditions such as poor weather, nighttime and to unfamiliar landing sites.

The bottom line is that on-demand operators fly very different missions than scheduled commercial airlines, and in many cases they do not have the same infrastructure as scheduled commercial airlines. For example, on-demand pilots often fly without the assistance of an air traffic controller to ensure aircraft separation and to provide weather and safety advisories.

The I.G. also found that on-demand operators had less stringent safety-related regulatory requirements than large commercial airlines.

Some of the ARC's 2005 recommendations for on-demand operators related to icing and pilot fatigue. These are issues that this Subcommittee has examined with regard to scheduled commercial airline operations. The FAA has commenced rulemakings related to icing for large commercial airlines, although we still are waiting for the FAA to issue several final rules. We need to ensure that the on-demand community is not left out of the process as we go forward.

In addition, the report stated that the FAA lacks a risk-based oversight strategy for on-demand operators. The FAA does not require that on-demand operators report any data to the agency, but instead conducts a voluntary survey. It is difficult to have a risk-based oversight system without data to show where risks are. Again, this is a problem similar to what this Subcommittee found with regard to helicopter air ambulance operations.

After I requested a study on the subject, the GAO issued a report in 2007 recommending that the FAA identify and collect data to better understand the air ambulance industry. Today, I hope to hear from the FAA on steps that it intends to take in the interim to ensure risk-based oversight for the entire on-demand industry.

I also look forward to hearing from the industry on steps that it has taken to improve the safety and oversight of its operators.

We address many of the problems that the DOT I.G., the GAO and the National Transportation and Safety Board identified relating to helicopter air ambulances in H.R. 915, the FAA Reauthorization Act of 2009, which is currently pending in the Senate. Our bill also deals with issues relating to pilot fatigue in both the on-demand and commercial airline environment. I hope to move to Conference on this bill very shortly after the Senate acts, as we understand that they are doing as we speak.

Before I recognize Mr. Petri for his opening statement or any remarks, I ask unanimous consent to allow for two weeks for all Members to revise and extend their remarks and to permit the sub-

mission of additional statements and materials by Members and witnesses.

Without objection, so ordered.

The Chair now recognizes the Ranking Member of the Subcommittee, Mr. Petri, for his statement or any comments that he would like to make.

Mr. PETRI. Mr. Chairman, thank you for calling this important hearing on the safety of air charter and on-demand operations, commonly referred to as part 135 Operations.

Air charter and on-demand operators, including tourist sightseeing flights, agricultural missions, business charter flights and helicopter rescue flights play an important role in our economy. Air charter and on-demands air taxi operators conduct flights under different regulations than large commercial carriers due to the wide variety of flight and mission profiles of part 135 operators.

Commercial airlines, on the other hand, operate under fairly uniform flight and mission profiles. They are generally flying scheduled flights from one airport to another with a great deal of consistency.

According to industry experts, the part 135 industry has shown a declining accident rate over the last 10 years. However, a recent Department of Transportation Inspector General review has indicated that there are potential safety risks and shortcomings in FAA oversight of this complex industry.

So I am interested in hearing an assessment of the safety of the part 135 industry and what steps might be taken to improve risk-based safety oversight of the industry. I would also like an update from the FAA and other witnesses on the regulatory efforts that grew out of the 2005 Aviation Rulemaking Committee recommendations specific to this segment of the aviation industry.

Finally, safety experts have testified before this Subcommittee that the key to improving aviation safety is to address threats based on defined risk. Safety data from both mandatory and voluntary reporting mechanisms have helped the FAA to achieve a remarkable safety record.

According to the Inspector General's report, there is a lack of safety data available to regulators and auditors to pinpoint safety risks within the part 135 industry. So I am interested in hearing from the witnesses which data sets, if collected, would help to improve safety without causing undue cost burdens on small mom and pop operators.

And this is always a problem between larger and smaller entities, and we don't want to drive small people out of business because they are often servicing major parts of our economy. In my part of the Country, we have a lot of people flying crop dusting and doing other flights, in addition to the emergency health flights and the like.

I thank the witnesses for their participation in today's hearing and I look forward to your testimony.

Mr. COSTELLO. I thank the Ranking Member.

And now we will recognize the panel of witnesses: first, the Honorable Calvin Scovel, III, who is the Inspector General for the U.S. Department of Transportation; Ms. Margaret Gilligan, who is the Associate Administrator for Aviation Safety with the FAA; Mr. Ed

Bolen, who is the President and Chief Executive Officer of the National Business Aviation Association, and Mr. Bolen was the co-chair of the ARC; Mr. Matthew Zuccaro, who is the President of the Helicopter Association International; and Mr. James Coyne, who is the President of the Air Charter Safety Foundation.

I welcome all of our witnesses here today. I would ask Members to give their statements in five minutes or less, and would advise all of our witnesses that your entire statement will appear in the record. And we will ask you to abide by the five minute rule so that we have time, hopefully, to ask questions of our witnesses.

The Chair now recognizes Inspector General Scovel.

TESTIMONY OF CALVIN L. SCOVEL, III, INSPECTOR GENERAL, U.S. DEPARTMENT OF TRANSPORTATION; MARGARET GILLIGAN, ASSOCIATE ADMINISTRATOR FOR AVIATION SAFETY, FEDERAL AVIATION ADMINISTRATION; EDWARD M. BOLEN, PRESIDENT AND CHIEF EXECUTIVE OFFICER, NATIONAL BUSINESS AVIATION ASSOCIATION; MATTHEW S. ZUCCARO, PRESIDENT, HELICOPTER ASSOCIATION INTERNATIONAL; JAMES K. COYNE, PRESIDENT, AIR CHARTER SAFETY FOUNDATION

Mr. SCOVEL. Chairman Costello, Ranking Member Petri, Members of the Subcommittee, thank you for inviting me here today to testify on FAA's regulatory framework and oversight challenges for on-demand aircraft operators.

On-demand operators are a vital part of our Nation's air transportation system and economy. In addition to conducting passenger flights and cargo operations, on-demand operators provide critical services such as emergency medical transport and access to remote communities. Over the last 10 years, however, on-demand operators have been involved in 155 fatal accidents.

At the request of this Subcommittee, we completed a review and issued a report last July that identified differences in regulations and oversight applied to on-demand operators versus large commercial carriers. We are completing a second review, which focuses on specific challenges in FAA's oversight of this industry. My testimony today is based on this body of work.

I would like to discuss three areas in which we have focused our efforts: one, the risks surrounding on-demand operators; two, the need for an updated and effective regulatory framework given these risks; and three, challenges facing FAA in moving from compliance-based oversight to risk-based approach.

On-demand operators typically fly in an inherently risky environment. They tend to have short flights with more takeoffs and landings, the most dangerous part of a flight, and they may fly to and from small airports that may not have air traffic control towers or emergency equipment. They may also operate at altitudes vulnerable to weather and terrain hazards.

At the same time, on-demand pilots are often unfamiliar with the flight route due to the many different destinations that they service. Maintaining the varied and often older aircraft types and models adds to the complexity of operations and FAA oversight.

The 22 operators we reviewed had 321 registered aircraft, comprised of 65 different makes or models ranging from small Cessnas to Gulfstream jets and Sikorsky helicopters.

Despite these risks, FAA's current oversight of on-demand operators is based on compliance with outdated regulations that lack rigor in key areas such as flight crew training requirements and maintenance inspections for aircraft. For example, most on-demand operators are not required to provide pilots with leadership in cockpit decision-making training, CRM, even though the NTSB concluded that such training might have prevented several fatal on-demand accidents between 2001 and 2004.

In regard to maintenance requirements for on-demand operators, we found that about 60 percent of the on-demand passenger and cargo fleet is over 20 years old. FAA, however, does not require aging aircraft inspections for on-demand operators.

Further, while many key maintenance requirements for on-demand aircraft seating 10 or more passengers are similar to those for large commercial aircraft, these requirements do not apply for on-demand aircraft seating nine or fewer passengers which make up 85 percent of the industry.

FAA also needs a better regulatory framework for segments of the on-demand industry that have even greater operating risks such as helicopter air ambulance and air tour operators. Air ambulance operations are frequently conducted in poor weather, low visibility and high stress. Air tour operations are usually conducted at low altitudes in high traffic areas and with pilots conversing with passengers.

FAA efforts to improve helicopter air ambulance safety have focused on voluntary actions with little results. For example, in 2008, air ambulance operators were involved in eight crashes resulting in 29 fatalities. FAA has a rulemaking effort underway for helicopter emergency medical services, but to date has not issued a proposed rule.

While FAA issued a new rule for air tour operators in February, 2007, the rule continues to allow some air tour operators to fly under less stringent general aviation regulations. As a result, many of the standards in place for part 135 operators, such as pilot training programs, more stringent maintenance policies, and crew rest restrictions, are still not required for many air tour operators.

In 2005, FAA's Aviation Rulemaking Committee made 124 recommendations for strengthening on-demand regulations. The recommendations address concerns such as crew rest, flight and icing conditions, and the lack of cockpit voice recorders and operational data. To date, however, FAA has not issued final rules addressing the committee's recommendations and many of these issues are also the focus of 39 open NTSB recommendations related to on-demand operations.

FAA plans to implement a risk-based safety approach for safety oversight for on-demand operators in 2013. However, given the number of accidents associated with on-demand operations, we believe it is imperative that FAA implement an interim process that considers the risk factors unique to this industry.

We will continue to monitor FAA's progress as it strives to provide one level of safety for all commercial aviation operations.

Mr. Chairman, this concludes my statement. I would be happy to answer your questions or other questions posed by Members of the Subcommittee.

Mr. COSTELLO. The Chair thanks you, Mr. Scovel, and now recognizes Ms. Gilligan.

Ms. GILLIGAN. Thank you, Mr. Chairman. And we have a few slides that we would like to use to accompany this presentation.

I want to thank you and Mr. Petri and the Members of the Committee for inviting me to discuss FAA's oversight of the on-demand operators. I would like us to look at the nature, scope and, importantly, the value of these operations.

We are talking about these kinds of aircraft operating to these kinds of airports, including Alaska, where you may find a polar bear on the tarmac, and oil rig in the middle of the Gulf of Mexico or the rooftop of a hospital.

On-demand operations aren't anything like the commercial operations we are usually called here to discuss. Those operations, operated under part 121 of our regulations, are what most people experience when they fly. They buy a ticket and fly from one major airport to another, using only about 10 percent of the airports throughout the Nation.

But if you live in Alaska or if you need emergency medical service in a remote locations or more quickly than surface transportation can provide it; if you are handicapped or elderly, but want to see the vast beauty of the Grand Canyon or the amazing sight of the only active volcano in the U.S. while traveling in Hawaii, you need the kind of services provided by an on-demand operator.

We think comparing these operations to part 121 operations is like comparing apples and oranges. These operations are not predictable, but we and the Congress have acknowledged that they are valuable. They take passengers and packages to places you can't get to from here. They serve remote location, mostly in Alaska, but also throughout the U.S., and they land on everything down to grass and gravel strips.

They serve needs that cannot be met in any other way. That is why it is important to identify the risks in each of the various types of operations and identify safety improvements that address those risks.

I want to be clear. The accident rate for these operators is higher than we want. No accident is acceptable to the safety professionals at the FAA. And that is why we have engaged in continuous efforts to increase the level of safety throughout the industry.

The data shows that over the last 10 years, we have continually put pressure on the number of total accidents and the number of fatal accidents in this industry. The actual number of accidents, as well as the accident rates, are trending down. I would like to look at the data for several parts of this industry.

Congress has acknowledged the value of air tour operations. You have given us direction to enhance the safety and reduce the environmental impacts of these operations, but you have never suggested these operations should be eliminated. At FAA, we have taken specific actions to improve safety of air tours in Hawaii, and in 2007 established a specific set of safety standards, part 136, that

applies to all air tours. And in this case, the numbers of accidents continues to trend down.

Emergency medical service is a vital public safety and health demand, but the service must be provided safely. We have identified safety improvements and have gotten voluntary implementation from many operators. We saw great improvement in 2007, but we saw another spike in accidents in 2008. And while the accidents continue to trend down over the last 10 years, we know we can make even more improvements. We have started what Congress will be directing in the FAA reauthorization, a rulemaking that sets specific safety standards for these valuable operations.

Thousands of employees and tons of equipment are moved to and from oil rigs every day, and there is no way to do it except by air. This inhospitable environment was very hard for us to conquer since there was no way to establish radar service over the water. But technology advances give us the chance to change that, and the Gulf of Mexico is one of the first places where we are implementing ADS-B. By providing air traffic and other services to operators in the Gulf, we will continue to push down the accident rate.

And finally and perhaps most importantly, Congress has recognized the unique role aviation plays in everyday life in Alaska. From funding the FAA's Capstone Program that provided ADS-B technology throughout the State, to supporting the Medallion Foundation's efforts to improve pilot training and implement other safety enhancements, Congress has invested in safety and we see the results in the constant improving accident trends.

But we are not finished. We agree with the Inspector General that we can improve our oversight of this diverse industry. We have provided our inspectors a tool to improve their focus on high risk areas. About 70 percent of the inspector teams that are assigned to these operators are already using that tool, and we will require that it be used by all inspectors by the end of the year.

And in accordance with Congressional direction, we have developed a staffing model that will help us better estimate the staffing we will need in the future, and we will use that model for our 2012 budget.

Congress, FAA and the on-demand industry have made measurable safety improvements over the last 10 years. We intend to continue that success and we would be pleased to respond to any questions.

Mr. COSTELLO. The Chair thanks you, Ms. Gilligan, and now recognizes Mr. Bolen.

Mr. BOLEN. Thank you, Mr. Chairman and Mr. Petri and the Committee for holding this important hearing, giving us an opportunity to testify today.

As you know, the National Business Aviation Association represents over 8,000 companies that rely on business aviation for some portion of their transportation challenges. This includes both part 91 operations and part 135 operations. As all of you know, these have been very challenging times for the business aviation community. Nevertheless, it remains a very important industry for the United States economy.

Here in the United States, business aviation represents over 1.2 million jobs--including manufacturing jobs, service jobs, good pay-

ing jobs that we can keep here in the United States. Business aviation also serves as an economic lifeline to those communities with little or no airline service. During this economic turndown, over 100 communities have lost all air service. So general aviation is a vital link for America.

General aviation also helps companies be productive and efficient, help them do more with less, and also provides assistance in our Nation's humanitarian efforts. Since the Haiti crisis, for example, business aviation operations have flown over 700 operations into Haiti. They have transported over 1,200,000 pounds of supplies. They have moved over 3,500 people, doctors, humanitarian relief efforts. So it is a critical part of our Nation's aviation infrastructure.

I think one of the things that has already come out today is that part 135 operations, which are very much a part of the business aviation community, are enormously diverse, with diverse aircraft flying diverse operations into often challenging and sometimes unique places.

It is also what makes part 135 operations so important in the United States. And there is a concern as we have some of these conversations that people will mistake why we have different regulations for schedule operations, for on-demand operations, and for noncommercial operations. But it gets to the point that these are very different operations which need to have appropriate interventions and regulations, which understand, facilitate the operations, and enhance the safety. Our goal should not be to have identical regulations. It should be to reach equivalent safety opportunities.

With that in mind, the Aviation Rulemaking Committee that the Chairman has referenced in his opening remarks was convened I 2003. We have not had a major rewrite of part 135 since 1978, and so beginning in 2003, large numbers of people from the community dedicated hundreds of hours in a sustained effort to try to understand the diversity of the operations and to propose thoughtful, tailored enhancements to the safety net which is in place.

These recommendations, as you have mentioned, dealt with issues including fatigue, icing, cockpit resource management. We think that they were appropriate when they were submitted to the FAA in 2005. And I have gone back and reviewed them, and I do not believe the intervening five years has changed what the community would recommend as we go forward.

Five years feels like a long time to wait for a rulemaking, but we also recognize that during that time the FAA has had multiple administrators. And so we have approached the 135 ARC recommendations with some degree of patience, but we feel it is important that we move forward. The community put a tremendous amount of time and effort into this. We think it represents the best thinking from the community and we would urge the FAA to move forward with that.

We also recognize in the interim period there are educational programs and international standards such as the International Standard for Business Aviation Operations, or ISBAO, which can facilitate these operations, and there is probably more that can be done in terms of reporting, training, and inspector prioritizations of resources.

But Mr. Chairman and Members of the Subcommittee, MBAA stands ready to assist you as we try to move forward to build on the very special on-demand operations which are so fundamental to our Nation's job base and our transportation system as we work to enhance safety.

Thank you.

Mr. COSTELLO. The Chair thanks you, Mr. Bolen, and now recognizes Mr. Zuccaro.

Mr. ZUCCARO. Thank you, Chairman Costello and good afternoon, Ranking Member Petri and Committee Members. I appreciate the opportunity to come before you.

The original issue seems to be based on the perception of a safety disparity between scheduled 121 and on-demand 135. That, as you accurately pointed out, that is kind of a skewed comparison at this point, based on the fact that there is no actual data of flight hours or mission-specific performance in the on-demand market, certainly not in the helicopter industry.

We believe that simple action of getting that accurate data and mission profile would increase or enhance our safety profile, based on 100,000 hours flown. It still is not acceptable and it still is not on a par with the scheduled air carriers, but it would give an accurate comparison.

I know the issue does not really relate to regulatory oversight per se. As was mentioned, the regulations are pertaining to the specific mission profile. Case in point in the helicopter industry, which is kind of unique, 121 air carriers basically comply in fact with 121, which is an extensive, complex regulation based on their operating environment and their equipment.

If I am a typical helicopter operator and I want to go out and do multi-missions, and we have 50 of them, and plus, I have to make sure that my operation is in compliance with FAR part 61, in compliance with FAR part 91, in compliance with FAR part 119, and compliance with FAR part 135. And if you're flying HEMS, there is specific flight duty rest time limitations in there.

Let's say I actually also do some air tour operations. I have to make sure I am in compliance with FAR part 136. Within that regulation, it has further requirements for Grand Canyon and the State of Hawaii. If I want to do external load operations, I have to make sure I comply with 133 rotocraft external load. And if I should happen to be doing aerial applications, I have to make sure I am complying with part 137.

This is an extensive regulatory oversight that exists and we think it is proper. And if you want to enhance it or tweak it, we are up for that, but it shouldn't be replaced by a duplicate 121.

I think the other issue in terms of maintenance is important, that helicopters are maintenance-intensive and we basically do in fact have extensive maintenance comparable to the airlines because of the nature of the equipment and the manufacturer's recommendations.

If I can get the slide up here? This is a slide prepared by the FAA out of the Safety Office a while back. And you can see that this is factors over 1946 to 2002 that led to a drastic reduction of the 121 air carrier accident history. It brought it down to almost zero, which is a goal that we aspire to, and we have the utmost

respect for the 121 operators and the people that run that operation and the achievement they have made.

But what is important is take a look at the things that triggered the reductions. They are either infrastructure improvements or technology advancements. They are not increased regulations and it is not surveillance increase. And it is also on the bottom, the important box on the bottom indicates a cooperative safety agenda between the FAA and the industry drove this train.

We respect that and we are trying to duplicate that in the helicopter industry through the International Helicopter Safety Team. And the next slide indicates basically what it would be like possibly if the helicopter industry achieved this, introduction to a scalable safety management system, insurance safety incentives, night vision goggle utilization and TOZ, ADS-B implementation, which is now taking place in the Gulf of Mexico, and eventually as a vision in all IFR operations similar to the airlines, with a cooperative effort between the industry and the FAA and the NTSB and the Committee.

So we think that is really the key to make this thing happen and not really focusing on the particular regulations. If you take a look at the mission profiles that have been mentioned. A typical airliner, obviously, travels certified airport IFR to certified airport. Take an EMS mission where you depart in the middle of the night off of a trauma center in undesirable weather and over a possibly less than desirable terrain, without communications and without surveillance from air traffic control, and you are going to land someplace that nobody's been before.

We want our environment to be improved to equal or get up to the status of the 121 air carriers. We think that that is the way to go. Give us a similar operating environment with their controls and their oversight in the environment and the technological advancements, and we think we can duplicate their information in terms of safety history.

We are not against regulations. We have supported regulatory initiatives as appropriate in the HEMS. Our recommendations actually have exceeded the NTSB recommendations and the FAA, so it is not a matter of not wanting more regulations. We want the right ones that are applicable to our situation.

That being said, we are going to maintain our policy of safety first. One accident is one too many, and we look forward to working with the Committee, the FAA and the NTSB to achieve that.

Thank you very much.

Mr. COSTELLO. The Chair thanks you, Mr. Zuccaro, and now recognizes Mr. Coyne.

Mr. COYNE. Well, thank you very much, Chairman Costello, Ranking Member Petri and Members of the Subcommittee.

My name is James Coyne. I am the President of the Air Charter Safety Foundation, which was founded in 2007 as a 501(c)(3) nonprofit foundation established to improve safety in air charter and shared aircraft ownership operations.

A lot of the important comments that I was going to be making have already been made, so with your permission I would like my comments put into the record, and really address some of the concerns we have about the I.G. study directly to you.

First off, the I.G. study concludes that the FAA's oversight produces less stringent safety requirements on part 135 operations. And I am here to say that in fact that is probably a misstatement. I used to be a college professor many years ago and I know how hard it is for the I.G. to track young people and have them do studies like this on short notice without really fully understanding an industry. But if I had to give this study a grade as a professor in my days, I probably would give it a C minus because it really overlooked some of the most important things that you need to do to evaluate the safety of the air charter industry.

They say they want to look at the risk factors in the industry, and I certainly agree with everything that they said about the risk factors in air charter. We in the industry have known from the day of our very first air charter operation, we have always known that this is a different business than the airline business and has very different risk factors. So I congratulate the study for producing a report that says the obvious. We have known this for a long, long time.

But what they don't say, what they do not research is how has the community, how has the air charter community responded to these very different risk factors that we have to face? And the answer is we have done over the last 50 years hundreds and hundreds of things, many of them with the FAA's encouragement and guidance and many of them without.

And I would like to focus just on six of those items that we have achieved in just the last few years. First is the implementation of rigorous audits across the industry. This is probably one of the most important things to have happened in the last 10 or 15 years. These did not exist in the charter industry as recently as 15 years ago, and now virtually all of the major charter operators in this Country voluntarily subject themselves to aggressive audits to ensure that their operation manuals that they have to submit to the FAA before they can be approved to operate an aircraft, that they are living up to the letter, the spirit of those operation manuals and those guidelines and the FAA regulations.

We at the Air Charter Safety Foundation undertake audits for our members at great expense, and we do it regularly, and we hope that all of the charter operators in the Country will continue to move in this direction.

And one of the reasons that they will, we think, is because of the second item I would like to mention, the development of what we call safety management systems. This is something, frankly, that we have copied from the military and from the airline industry. But in the last five years, across the entire 135 industry, there has been an understanding that we are moving in the direction of safety management systems in our industry.

In fact, the ICAO, the International Civil Aviation Organization, is mandating that SMS, or what we call safety management systems, become a part of air charter around the globe. And the FAA is moving with this community to have this SMS mind set developed and turned into regulatory demands.

The third thing I would mention is the development of safety data development systems. Again, five or 10 years ago, there was really no sophisticated way for the industry to develop safety data

or to track safety data. The Air Charter Safety Foundation has produced a program called AVSiS. It is a free safety data tracking system for our operators or any operator in the Country. And this will allow us to begin to develop the data that we need to really find out what are the things that we are doing wrong? Because you don't want to wait for the accident to happen. You want to start mining the data of your operations to find out where you have to invest new resources and attention.

Fourth, the Air Charter Safety Foundation has just recently released something we call a risk assessment tool. This allows every charter operator in the Country before a flight to determine what are the special risks associated with this special flight. If you are taking off at night in rain, if it is going into an airport you are unfamiliar with, if there is snow on the runway, all sorts of factors can be put into this risk assessment tool so that the aircraft operator can determine whether he has to take or she has to take special steps or perhaps even cancel the flight so that the operator can go to the passenger and say, I am sorry, but the risk assessment that I have just done on this flight is so high that I am not willing to do the flight now. We are going to wait until tomorrow morning, things like that.

This is something that even the airline industry doesn't have as well developed as we are developing in the charter industry.

Third, we have produced for our community something we call IC-Check, which is a computerized system so that every operator can assure himself that before the flight is taken, the flight is fully consistent with every single FAA requirement, that we fully in compliance with everything. This fulfills the role of a dispatcher, perhaps, for a larger airline, but allows a smaller operator to have this online tool to achieve the same kind of assurance that they are meeting all of the regulatory requirements for a flight.

And finally, we have developed, in conjunction with the Port Authority of New York, an online training program for complicated airports, so that a pilot going into an airport that he has never flown into before can go online and see a 20 or 30 minute video as though he was being briefed by someone who has been flying into that airport for 20 years, get the benefit of somebody really familiar with that airport, and get it online for free. So this is something that we think is going to be very important to give pilots who are going into airports where they don't have a lot of experience really a good opportunity to train for that particular flight.

So I don't see how the I.G. can do a study of what the FAA should do in terms of aviation safety for this industry unless they study what is the community already doing itself. It is trying to look at one hand without the other. And frankly, it has already been mentioned that this is apples and oranges. This is far broader than apples and oranges. If the airlines are an orange, this community is hundreds and hundreds of other kinds of apples, and we deserve to have a flexible adaptive regulatory system. And I submit that the one that we have today is flexible. It is adaptive, and it is not certainly less stringent than is needed.

Thanks very much.

Mr. COSTELLO. The Chair thanks you, Mr. Coyne.

Mr. Scovel, I have to ask you to follow up on Mr. Coyne's statement that, one, he doesn't see how the Inspector General can ask the FAA to proceed without first seeing what the industry is doing. Do you have a comment about that?

And secondly, I think Mr. Coyne said in his former career as a professor that he would give the report a C minus. And I am wondering, one, can you grade the report for us? Mr. Coyne gives it a C minus.

Mr. SCOVEL. Thank you, Mr. Chairman. A couple of comments, if I may.

First, I would like to acknowledge Mr. Bolen's superb contributions to the 2005 Aviation Rulemaking Committee. The committee has come up with some superb recommendations for FAA and for the Congress to consider in order to increase the safety posture for the on-demand carrier industry.

Mr. Zuccaro, about a month ago I put my son on a helicopter air ambulance to take him from one Northern Virginia hospital to another. He is recovering from a bone marrow transplant. I am very thankful to you and to the pilots of that bird and everyone in that industry.

Mr. Coyne, my aviation safety team I thought was on track, frankly, to make it into Phi Beta Kappa because they are the same team that two years ago reported on Southwest Airlines, so that has appeared frequently before this Committee regarding repair station oversight, FAA oversight of repair stations. We have also done extensive work recently on American Airlines and their maintenance procedures.

I guess we will have to go back to remedial study hall if all we are going to get from this one is a C minus.

Mr. Chairman, I would put this one a lot higher than that. And if I could echo a couple of comments that you made in your introductory remarks. First, let me remind everyone here that we responded to your request and to Chairman Oberstar's request when we prepared this report.

You asked us to look at the characteristics of both part 121 and 135 segments of the industry, their regulatory differences, FAA's varying safety oversight programs, and keeping in mind my mission under law to keep this Congress and the department fully and currently informed. When I have two Committee Chairmen tell me what they would like to be informed about, we answer the mail. And we have done that here.

In the course of doing that, we consulted extensively with the FAA and with industry representatives, to include those sitting here at the table with me today. They had a chance to look at all of our facts and we have incorporated their comments where we considered appropriate in our report to the Committee.

Secondly, I interpreted, sir, your direction to us to compare 135 with 121 merely as a request to use part 121 as a frame of reference, not as a yardstick against which we should measure part 135 with the intent ultimately to recommend that one set of regulations become the mirror image of the other.

Our July, 2009 audit report and my testimony today report on undeniable safety challenges faced by the on-demand industry, resulting from, as we have all agreed in our introductory remarks

today, the diversity of operators and aircraft in the challenging environment in which they fly.

I think an objective reading of our work will show that we have never recommended that 135 regulations be revised to mirror part 121. We know our lane and we stay in it. FAA is the policy maker, not OIG. Our role is to provide data so that the Congress, the department and FAA can get their decisions right.

We are not NTSB either. NTSB is acknowledged worldwide as the aviation safety experts. That is not my role.

What we have done over the course of many years now, not only while I have been the Inspector General, but also under my predecessors, has been to derive long experience with our examinations of FAA's safety oversight programs. And FAA is our jurisdiction, not the industry. And I would like to keep that uppermost in mind, too.

In fact, industry and we, once all the smoke clears I think from this discussion, have to recognize that we are essentially on the same page thanks to the intimate involvement of industry in the Aviation Rulemaking Committee over the course of more than two years, from 2003 to 2005.

The Congress and FAA have an outstanding blueprint, a road map on how to improve safety conditions within the 135 industry and that is the report from the ARC. And again, an objective reading of our 2009 report and our testimony today will show that essentially our recommendations boil down to this. FAA needs to move out on the ARC recommendations. FAA needs to institute an interim oversight measure, risk-based oversight measures to bridge the gap between where we are today until 2013 when its new risk-based long-term safety oversight system is supposed to come on line.

Mr. COSTELLO. I thank you, Mr. Scovel.

At this time, the Chair would recognize the distinguished Chairman of the full Committee, Mr. Oberstar, who has to leave shortly, as do I and Mr. Petri, to go to the floor to manage a bill.

So Chairman Oberstar?

Mr. OBERSTAR. Manage two bills, in fact, one a reiteration of a bill we passed last week or the week before. Hopefully the other body has risen from its slumber and been affected by an earthquake, prodded into movement, and do the right thing by the furloughed employees.

But I want to thank Inspector General Scovel for splendid work and quick response to the request Mr. Costello and I made to inquire into this particular issue. It has been a long time concern of mine, higher inspection standards for aircraft, the aging aircraft, the challenges of that segment and the incidence, rising apparently, incidence of fatal accidents with on-demand air services, which I rely on in my district. My district is the size of the Eastern Seaboard from here to Connecticut, and without charter operations, I couldn't serve the people of my district, but it has to be safe.

And the issues raised and questions provoked by the Inspector General's report are of great importance, and the testimony from all the witnesses. I have skimmed through it, as I usually do for all these hearings, and I would love to spend a little more time with you, but unfortunately the Floor calls and we have to leave.

But thank you very much for your presentation.

Mr. COSTELLO. The Chair thanks Chairman Oberstar.

And now, Ms. Gilligan, if you would, you state in your testimony that the FAA is optimizing its oversight resources on demand operations. Do you want to elaborate on that?

Ms. GILLIGAN. Yes, sir. As always, FAA is faced with setting priorities. And as we look at the Inspector General's recommendations, for example, on providing risk-based oversight, we have worked, as you know, for more than the last five years to enhance the risk-based oversight that we provide to part 121 operations. In fact, the Inspector General and I and others in my position have testified before this Committee several times about the need for FAA to continue to improve the risk-based oversight system that we use for 121 operators and for our part 145 repair stations.

As we have continued to try to improve that system, we have not been able to put the same kind of focus on the risk-based approach for the on-demand operators. That is a piece that we are moving toward, and as I mentioned in my testimony, we do have a tool that is available to the inspectors responsible for on-demand operators right now.

We know 70 percent of those teams are using that, and we are putting out the guidance to mandate the use of that tool as the Inspector General suggests, as a way to fill an interim gap until we can have a more robust system available for these on-demand operators. But again, we focus on the commercial 121 operators and the part 145 repair stations because we believe that is where our highest priorities need to remain.

Mr. COSTELLO. Thank you.

The Chair recognizes Mr. Petri. But before I do, let me say that I will have to leave to go to the Floor and Mr. Boswell has agreed to sit in as the Chair and preside over the rest of the hearing.

Let me, Mr. Scovel, thank you, as Chairman Oberstar did, for your quick response to our request and we intend to follow up on this and to work with you and the FAA.

The Chair now recognizes Mr. Petri.

Mr. PETRI. Thank you, and I apologize, too, because I will have to be over shortly to keep an eye on my colleagues.

I just wanted to observe, we were talking a little bit on Jim Coyne's grading. There has been a lot of grade inflation since he taught school, so it probably would be a B plus today in any event.

But I wonder if anyone on the panel, particularly the representatives of the private industry involved, had any comment? The Federal role clearly is to protect the traveling public and people who are being dealt with. You have many segments of the industry where they are actually not doing that. They are doing agricultural work. They are flying out to oil rigs. They are monitoring traffic patterns for radio stations. It seems to be a little different category than protecting the traveling public.

And also, those tend to be in many cases smaller operations where too much regulation would reduce the service to the consuming public, people traveling on the road or buying food in the store or one thing or another. So is that a fair point to make?

And I was particularly impressed by Mr. Zuccaro's discussion of all the different segmented specialized types of thought that is in

place to try to tailor procedures to the different nature of segments of the industry, and then Mr. Coyne's discussion of the things the industry or pieces of it are doing to protect or to help the pilots and others involved do a better job.

Mr. ZUCCARO. Yes, Congressman, all the missions that you just mention are predominantly helicopter-type oriented missions, and they fall into that 50-plus mission diversity that we were speaking about.

There are those type of scenarios. I would say something like flying off to the offshore oil, those are done under 135 regulations and they are highly regulated and they are surveyed on an ongoing basis by the FAA. The FAA inspectors are at those operators' locations on a regular basis. They do fam rides out to the oil rigs and inspect the facilities.

Absolutely, something like electronic news gathering or traffic reporting would fall under part 91. They are not really required because they are not doing passenger-carrying missions. But the other type of services in terms of surveillance with the FAA where you have small operators, that is an excellent point because I know in the helicopter industry, 85 percent of the operators are in fact small operators, one to five helicopters. They have one base location and they usually only conduct VFR operations in the local area.

So the surveillance on that type of an operation and oversight is going to be dramatically different than obviously a large air carrier with hundreds of aircraft in international and domestic locations, but it is tailored accordingly as the case may be.

I would point out one interesting thing that has frustrated us is that senior FAA management and executives, and the same on the NTSB side, have taken the initiative and in a very professional manner and a dedicated, committed focus on safety, have come out to the field and actually try to survey and look at the operations themselves.

On numerous occasions, they were provided the opportunity to fly in the aircraft and go out and see the operating area. Unfortunately, they weren't able to do that. Their legal departments would not allow them to take those flights because of a potential conflict of ethics issue, which befuddles us, quite frankly. They took the time. They came out and they showed their interest and dedication, and yet the legal arm of those agencies told them you can't go on that flight and go see those areas and see what is going on. They are regulators. They are investigators and make recommendations. Who better to go out and to see the environment and to fly in it?

So I don't know if there is anything that can be done with that, but we would love to take them out and show them those operations. And that is one of the idiosyncrasies that we run into out there.

Mr. BOSWELL. [Presiding] Thank you.

The gentlewoman from California, did you have questions? Ms. Richardson?

Ms. RICHARDSON. My question was for Mr. Bolen.

Mr. Bolen, you reference in your testimony that the Aviation Rulemaking Committee submitted over 100 recommendations to

the FAA to update part 135 regulations. You stated that you are hopeful about the renewed interest in these recommendations.

Could you tell us a little bit more and what confidence you have that you think it is going to be more than an interest and get done?

Mr. BOLEN. Well, I think there are a couple of different things that have come together, not the least of which is we have a new Administrator with a new five year term that can provide some stability and predictability. One of the reasons that we went to a five year term for an Administrator was to provide that kind of long range guidance. When we delivered our recommendations, we were at the tail end of one Administrator. We went through a long interim period. We now have a new Administrator.

And I think there is also a renewed commitment to enhancing safety of all operations as we have collectively, as a community, made safety and continue to make safety a number one priority.

Ms. RICHARDSON. Have you had any conversations with the Administrator yet of a commitment to do that?

Mr. BOLEN. We have talked about promoting safety generally. We have not talked specifically about the ARC recommendations.

Ms. RICHARDSON. Okay. Would you be opposed to supplying with them what your request is?

Mr. BOLEN. Sure.

Ms. RICHARDSON. Okay. Thank you.

Mr. BOSWELL. Thank you.

I am going to announce that we are going to probably finish this today at 3:20 because of other things that are happening. But I do want to recognize Mr. Garamendi for any questions he might have, but we are going to try to wrap this up at about 3:20. That is our goal at least.

Mr. Garamendi?

Mr. GARAMENDI. I will not stand in the way of your desired departure because I, too, have to leave.

The report that we have before us really speaks to what the FAA has or has not done, and so questions for Ms. Gilligan. And I just want to go through the specifics of the report one at a time, and if you could respond on what the status of the FAA is with regard to each of these.

Crew training. The report suggests that the crew training requirements and regulations are inadequate. Where is the FAA on that matter?

Ms. GILLIGAN. We have issued a notice of proposed rulemaking for what we call crew resource management. The comment period is closed and we are working on that final rule.

Mr. GARAMENDI. Expectation of completion is when?

Ms. GILLIGAN. I believe it is the fall, but I can get you the data that we are working against. I am sorry.

Mr. GARAMENDI. If you would, please.

Ms. GILLIGAN. Sure.[The information follows:]

FAA insert for the record at p. 45, line 1002:

The final rule for crew resource management training for crewmembers in Part 135 operations is being drafted and is scheduled to be published in fall 2010.

Mr. GARAMENDI. Just moving right along. Maintenance requirements?

Ms. GILLIGAN. We will look closely at the Inspector General recommendations, but I think as you have heard from much of the testimony, these aircraft are very different from the aircraft that are used in the part 121 operations, and we think that there are appropriate differences in some of the maintenance requirements.

As Mr. Zuccaro pointed out, there are several sections of our rules currently applicable to these operations that do set a requirement for approved training programs and maintenance programs, and we do provide oversight of those. But we will certainly look again at those areas the Inspector General has highlighted to see if there is something additional that should be included.

Mr. GARAMENDI. So there is no new rulemaking proposal underway?

Ms. GILLIGAN. There is nothing underway yet.

Mr. GARAMENDI. Mr. Bolen, of your 100 recommendations, are there anything in the maintenance?

Mr. BOLEN. My recollection is that there is some of the primary recommendations were in the area of pilot fatigue. And I think those recommendations are very consistent with some of the latest thinking, including circadian rhythms and so forth, and then icing, cockpit resource management were among the priorities here.

Mr. GARAMENDI. Okay. So the maintenance issue remains open. That is what I heard.

Ms. GILLIGAN. We, again, will certainly look at that. We always look closely at whatever the Inspector General suggests.

Mr. GARAMENDI. And yet the fleet is both new and very old.

Ms. GILLIGAN. Yes, sir, it is.

Mr. GARAMENDI. So maintenance would seem to be an issue of some significance.

Ms. GILLIGAN. It is, and that is why we do, in fact, have programs in place for maintenance oversight for these aircraft, but we will look to see if we need to enhance that.

Mr. GARAMENDI. I note, and I suppose the Committee notes, that the Inspector General thinks this is something you ought to look at.

Ms. GILLIGAN. Yes.

Mr. GARAMENDI. The emergency helicopter operations, Mr. Zuccaro, you spoke to that. What is the FAA doing about that?

Ms. GILLIGAN. We are drafting a set of standards that will apply specifically to emergency medical services. That notice has not yet been issued, but it is in draft and it is, as I mentioned in my testimony, a part of what we know Congress is very interested in in our reauthorization bill as well. So we are well along on meeting that expectation.

Mr. GARAMENDI. Two more to go, and thank you. I will be done within five.

The level of safety for air tour passengers?

Ms. GILLIGAN. We implemented an air tour-specific set of standards in 2007 and we have seen an improvement in the accident rate in that industry as well. We will continue to monitor that, and if there are changes that appear to be necessary, we will pursue additional rulemaking if necessary.

Mr. GARAMENDI. And Mr. Bolen, any of your 100 recommendations in that area?

Mr. BOLEN. Were not specific to air tour.

Mr. GARAMENDI. And finally, recommendations to strengthen part 135, just generally, I guess, that issue. We covered it.

Ms. GILLIGAN. Yes.

Mr. GARAMENDI. Mr. Chairman, thank you.

Mr. BOSWELL. Thank you.

And I think that probably brings us to closure. Mr. Chairman Costello had a short exchange before he left, said that he felt like we had a good exchange today and good information, and was pleased for the effort that you have all put into it, and be sure and thank you for taking the time to do this.

And Mr. Boccieri now decides he would like a question. I had it down that he didn't want to have any.

Mr. BOCCIERI. Thank you. I am sorry, Mr. Chairman, but those are very thought provoking questions.

Mr. BOSWELL. There is a good possibility we will recognize you at this point, and then I will finish my remarks.

Mr. BOCCIERI. Last one standing. Thank you.

To Ms. Gilligan, there was some testimony that talked about the surveillance priority index that is assisting inspectors and prioritizing surveillance of part 135 operators. What exactly is going to be the process by which inspectors are going to be—what type of surveillance are we talking about?

Ms. GILLIGAN. It is actually an automated tool that allows an Inspector who has more than one certificate for these kinds of operations to determine where he or she might better spend their time, based on the level of risk in the operation. So it is actually an automated tool where the inspector will fill in information, provide certain numerical values to that information, and the help tools he or she come up with a way to better prioritize where they spend their work, so that we don't have inspectors who are sort of just repeating what they have done everywhere. They are really looking at those operators where there may be higher risk and at those particular areas where there may be higher risk.

Mr. BOCCIERI. So sort of a risk assessment?

Ms. GILLIGAN. Yes.

Mr. BOCCIERI. Okay. And to the panel, I don't know who would be more appropriate to answer this, but it has been noted that the on-demand operators have a significantly higher accident rate than commercial carriers, at least that is what is being purported by the I.G. However, the FAA data shows that the number of on-demand fatal accidents has declined since 2000. How do you strike the balance on those two assessments?

Mr. BOLEN. Well, I will say that we have very good numbers in terms of the absolutes. We know that. Understanding the rate relates a little bit more to hours flown, which have not been as clear. And that is one of the reasons that the general aviation community has historically worked to try to strengthen the understanding and the gathering of data related to flight hours.

Today, we rely on a survey and the survey results help us make a guess-timation of flight hours. But in terms of actually getting to rate, we would need more precise information on that. And that is

one of the reasons why our community is we have worked to improve general aviation safety, have tried to focus on absolute numbers because they are clear, concrete and understood. The rate is a little bit more squishy.

Mr. BOCCIERI. Judging on what you just said, Mr. Bolen, are you suggesting that perhaps that this oversight does not jive with the data that is coming in, since accidents are going down? I just want to be clear how the Inspector General is coming to these conclusions.

Mr. COYNE. Well, the Inspector General was comparing the levels in part 135 primarily to the 121 community. And I don't think he was really focused on the more recent results that have been so positive in our industry. In fact, the even more recent results from 2009 show that the air charter industry had the lowest fatal record ever, in 2009.

So we have seen good news. Maybe that was one of the reasons I gave him a C minus, you know. They didn't jive up with the data that we see in the industry as being so positive.

Mr. ZUCCARO. I think to clarify just a little, quickly, the data that is being kind of tossed around is really nebulous, and everybody focuses on there were X number of accidents in on-demand and X number of accidents in 121. That is not a comparison. All it says is what happened in that industry. But then you have to take a look at how many per 100,000 hours flown.

There is empirical data for the airline industry. There are estimates at best. The magic to this is that I think everybody agrees the numbers being reported for on-demand are underestimated. There are really more hours being flown by on-demand than is truly on the record. If, in fact, we knew that real number and it raised the number of hours flown, it would improve. By doing nothing else, it would improve the rate per 100,000 hours just by knowing the real number. So that is a deficiency right there when you are throwing these numbers around.

Mr. BOCCIERI. Are there reporting requirements for the number of hours flown?

Mr. ZUCCARO. No, and that is a deficiency that we have gone on record saying there ought to be a requirement for aircraft owner-operators on an annual basis to report their gross hours flown per aircraft, and we would have that number, but there is no requirement right now.

Mr. BOCCIERI. Well, too, it might be argued, too, that flying through Niagara Falls and around the falls and the sorts of high risk flights are somewhat dangerous, too. Mr. Scovel, maybe you want to comment that that was taken into consideration.

Mr. SCOVEL. Thank you, Mr. Boccieri. A couple of comments about data gathering.

The panel is absolutely correct when they say that the data is squishy, and that has been one of the recommendations for some time is to improve FAA's data survey. It is now voluntary with about a 63 percent participation rate among the industry. It needs to be much, much higher in order to give the Congress and the FAA assurance that its oversight efforts are properly focused.

If I could, sir, respond to your point on part 135 on-demand fatal accidents. We looked at the years using NTSB data from 2000,

when there were 22 such accidents, drifted down as the panel has said, the next several years at 18 per year; bumped up in 2003 to 23 fatal accidents, and then took a sharp drop down, down to 11 and 10 and 14; up again in 2008 to 19. In 2009, preliminary NTSB estimates were two fatal accidents in that year. We aggregated the number and came up with, of course, 155 total accidents during the past decade for part 135.

Mr. BOCCIERI. Okay.

Thank you, Mr. Chairman.

Mr. BOSWELL. Thank you. I appreciate that exchange.

And back to where we were, thank you to each one for coming. Again, Chairman Costello appreciated you being here. I do, too. And I think that as we work together, we will make things better, and so we will continue to do that.

I won't repeat what he said in the opening, and we will go to standard procedure for the time lines that we do things to wrap up.

Thank you for your being here today. Thanks for your work. We appreciate it.

This meeting will be adjourned.

[Whereupon, at 3:08 p.m., the Subcommittee was adjourned.]

OPENING STATEMENT OF
THE HONORABLE RUSS CARNAHAN (MO-03)
HOUSE TRANSPORTATION AND INFRASTRUCTURE COMMITTEE
AVIATION SUBCOMMITTEE

Hearing on
FAA's Oversight of On-Demand Aircraft Operations
March 17, 2010
2167 Rayburn House Office Building

Chairman Costello and Ranking Member Petri, thank you for holding this important hearing on the Federal Aviation Administration's oversight of on-demand aircraft operations.

On-demand aircraft operators provide vital services to communities all across the country, including air medical flights and helicopter firefighting, as well as services to business and tourist industry. However, between 2000 and 2008 the fatal accident rate for on-demand operators was fifty times greater than the accident rate for scheduled air carriers, and fatal accidents in the on-demand sector involving aircraft seating nine or fewer passengers is even higher.

These statistics are troubling, but even more troubling is the report released by the Department of Transportation's Inspector General in July of last year, which outlined concerns about the FAA's oversight of on-demand operators. The report identified several factors that attribute to the high accident rate for on-demand flights.

The DOT IG's report identifies that to some extent it is expected that on-demand aircraft would have a higher rate of accidents than larger commercial flights because of the variance not only aircraft they fly but also the vast array of topography they fly. On-demand aircraft fly far less flight operations than commercial flights. Additionally, the report identifies that operators do not have to meet many of the regulatory requirements that large commercial carriers must follow. As a result, many times on-demand pilots are required to have less training and experience than commercial airline pilots.

I am interested in hearing both more from the DOT IG about his report but also efforts underway by the FAA to respond to the concerns raised in the report to improve the safety and oversight of on demand aircraft. In closing, I want to thank our witnesses for joining us today and I look forward to their testimony.

OPENING STATEMENT OF
THE HONORABLE JERRY F. COSTELLO
SUBCOMMITTEE ON AVIATION
HEARING ON FAA'S OVERSIGHT OF ON-DEMAND AIRCRAFT OPERATORS
MARCH 17, 2010

- I welcome everyone to this Subcommittee hearing on the FAA's Oversight of On-Demand Aircraft Operators.

- On-demand aircraft operators represent a segment of the aviation industry that operates aircraft on a for-hire, on-demand basis. Their flights include air tours and sightseeing flights, air medical flights, flights for passengers' business or personal travel, and helicopter flights to offshore oil rigs.

- Part 135 of the Federal Aviation Regulations governs on-demand operators. In 2003, the FAA initiated an aviation rulemaking committee, or ARC, to evaluate and make suggestions to update the regulations related to part 135. The ARC sent 124 recommendations to the FAA in 2005, many of

which were related to the on-demand industry. To date, the FAA has not issued any final rules based on the ARC's recommendations.

- In 2007 and 2008, there were 33 fatal on-demand accidents resulting in 109 deaths. In 2007, due to concerns about the fatal accident rate in the on-demand industry, Chairman Oberstar and I requested that the Department of Transportation Inspector General (DOT IG) review the on-demand industry and evaluate the Federal Aviation Administration's (FAA) oversight activities. Specifically, we requested that the DOT IG: (1) evaluate the differences between FAA regulation and oversight for on-demand operators versus larger commercial air carriers; (2) identify specific issues that may hinder FAA in its oversight; and (3) provide recommendations to improve FAA oversight of these operators.

- The DOT IG issued the first part of its report in July 2009, and I understand that the second report will be issued shortly. Today, I look forward to hearing from the DOT IG on its ongoing work in this area.

- The first report raised a number of important issues. The DOT IG found that on-demand operators operate in a high-risk environment.

- This Subcommittee heard similar testimony last year concerning helicopter air ambulance operations, which often fly in challenging conditions, such as poor weather, nighttime, and to unfamiliar landing sites.

- The bottom line is that on-demand operators fly very different missions than scheduled commercial airlines, and in many cases

they do not have the same infrastructure as scheduled commercial airlines. For example, on-demand pilots often fly without the assistance of air traffic controllers to ensure aircraft separation and to provide weather and safety advisories.

- The DOT IG also found that on-demand operators have less stringent safety-related regulatory requirements than large, commercial airlines.

- Some of the ARC's 2005 recommendations for on-demand operators related to icing and pilot fatigue. These are issues that this Subcommittee has examined with regard to scheduled commercial airline operations.

- The FAA has commenced rulemakings relating to icing for large, commercial airlines, although we are still waiting on

several final rules. We need to ensure that the on-demand community is not left out of this process.

- In addition, the report stated that the FAA lacks a risk-based oversight strategy for on-demand operators.

- The FAA does not require that on-demand operators report any data to the agency, but instead conducts a voluntary survey. It is difficult to have a risk-based oversight system without data to show where risks are. Again, this is a problem similar to what this Subcommittee found with regard to helicopter air ambulance operations. After I requested a study on the subject, the GAO issued a report in 2007 recommending that the FAA identify and collect data to better understand the air ambulance industry. Today, I hope to hear from the FAA on steps that it intends to take in the interim to ensure risk-based oversight for

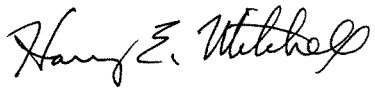
the entire on-demand industry. I also look forward to hearing from the industry on steps that it has taken to improve the safety and oversight of its operators.

- We addressed many of the problems that the DOT IG, GAO, and the National Transportation Safety Board identified relating to helicopter air ambulances in H.R. 915, the "FAA Reauthorization Act of 2009", which is currently pending in the Senate. Our bill also dealt with issues relating to pilot fatigue in both the on-demand and commercial airline environment. I hope to move to conference on this bill very shortly.

- Before I recognize Mr. Petri for his opening statement, I ask unanimous consent to allow 2 weeks for all Members to revise and extend their remarks and to permit the submission of

additional statements and materials by Members and witnesses.

Without objection, so ordered.



Statement of Rep. Harry Mitchell
House Transportation and Infrastructure Committee
Subcommittee on Aviation
3/17/10

--Thank you, Mr. Chairman.

--According to the Department Transportation's Inspector General, the last decade witnessed 155 fatal on-demand accidents.

-In 1999, alone, the National Transportation Safety Board reports there were 56 on-demand accidents involving 66 fatalities.

--The Federal Aviation Administration has a responsibility to ensure that these flights are safe, and this committee has an obligation to make sure the FAA is doing all that is necessary to do so.

--I look forward to hearing from our witnesses today.

--I yield back.

James L. Oberstar

OPENING STATEMENT OF
THE HONORABLE JAMES L. OBERSTAR
SUBCOMMITTEE ON AVIATION
FAA'S OVERSIGHT OF ON-DEMAND AIRCRAFT OPERATORS
MARCH 17, 2010

I want to thank Chairman Costello and Ranking Member Petri for holding this hearing on FAA's oversight of on-demand aircraft operators. This is an important subject for the Subcommittee on Aviation to explore.

On-demand aircraft operators are an important segment of the aviation industry. They provide services to the public, such as helicopter firefighting, air ambulance, and news gathering. In addition, they support business and tourism.

However, according to the Department of Transportation Inspector General (DOT IG), in the past ten years, there were 155 fatal on-demand accidents. Due to concerns about the high accident rate, Chairman Costello and I joined in requesting that the DOT IG review Federal Aviation Administration (FAA) oversight of on-demand operators. In July 2009, the DOT IG issued its first report, which focused on the differences in Federal oversight and regulation between on-demand operators and airlines. The report raised a number of issues that warrant concern, including either a lack of, or less stringent, requirements for on-demand operators in the areas of: crew resource management training; flight instrumentation and avionics, including

traffic alert collision avoidance systems and terrain awareness and warning systems; and maintenance inspection requirements.

I have long been an advocate for higher inspection standards for aircraft, especially aging aircraft. Our aviation system has been dealing with the challenges presented by an aging aircraft fleet for two decades. In 1988, while I was Chairman of the Investigations and Oversight Subcommittee, we held a series of hearings specifically on the aging aircraft issue. That same year, I was privileged to be the keynote speaker at an International Conference on Aging Aircraft. That conference represented a turning point in aviation history. As a result of the issues raised at that conference, the philosophy of aircraft maintenance began to shift from "inspect, detect and repair" to the replacement of age-sensitive parts at specified intervals.

Just one year later, after I assumed the Chairmanship of the Aviation Subcommittee, the Subcommittee held multiple hearings on the subject of aging aircraft safety. Those hearings culminated in passage of the Aging Aircraft Safety Act of 1991, which was signed into law on October 28, 1991. This landmark legislation required, in addition to existing safety regulations of older aircraft, special inspections of aircraft after approximately 14 years of service, with attention directed to possible problems associated with the aging process.

The DOT IG's report points out that on-demand aircraft seating nine or fewer passengers are subject to less stringent maintenance regulations than on-demand operators with ten or more passenger seats. It seems that we should be focusing more attention on aircraft with less than nine seats since the majority of on-demand aircraft fall into this category. I look forward to hearing more from the DOT IG on this subject.

This hearing also underscores the importance of pushing forward with automatic dependent surveillance-broadcast (ADS-B), the satellite-based aircraft surveillance system that is the cornerstone of the Next Generation Air Transportation System (NextGen). One of a pilot's primary responsibilities when flying in any airspace is to avoid other aircraft. ADS-B will assist pilots in on-demand operations, as it has already assisted those operating helicopters in the Gulf of Mexico, to ensure separation between aircraft and to enhance situational awareness.

Understandably, on-demand operators have had more accidents than large commercial airlines due to the fact that they operate in an inherently riskier environment. On-demand operators fly flight profiles that often vary greatly, and operate to and from airports, helicopter bases, and a wide variety of other locations that are often unfamiliar to the pilots flying the aircraft. On the other hand, large commercial airlines fly scheduled, routine flights, always with the assistance of a flight

dispatch center and air traffic control. These differences only underscore the importance FAA applying its oversight resources in an effective, targeted manner. The FAA needs to use a risk-based system, built on reliable data, to oversee on-demand operators. I look forward to hearing from the FAA on its oversight system.

Thank you again, Mr. Chairman, for holding this hearing. I look forward to hearing from our witnesses.

STATEMENT OF ED BOLEN

PRESIDENT AND CEO

NATIONAL BUSINESS AVIATION ASSOCIATION

BEFORE THE

SUBCOMMITTEE ON AVIATION

COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE

U.S. HOUSE OF REPRESENTATIVES

March 17, 2010

STATEMENT OF ED BOLEN
PRESIDENT AND CEO
NATIONAL BUSINESS AVIATION ASSOCIATION

Mr. Chairman and members of the Subcommittee, my name is Ed Bolen, and I am the President and CEO of the National Business Aviation Association. I am grateful for the opportunity to appear before you today. NBAA commends the Subcommittee for holding this important hearing to discuss FAA's Oversight of On-Demand Aircraft Operators.

THE NATIONAL BUSINESS AVIATION ASSOCIATION

NBAA was founded 62 years ago to represent companies that utilize general aviation aircraft as a tool for meeting some of their transportation challenges. NBAA and our Members are committed to working with Congress to transform and modernize the nation's aviation system. Likewise, we are committed to modernization policies that support the continued growth of each aviation segment, including general aviation, which plays a critical role in driving economic growth, jobs and investment across the U.S. We strongly support the shared goal of keeping our national aviation system the largest, safest and most efficient in the world.

General aviation is an essential economic generator, contributing more than $150 billion to annual U.S. economic output, and directly or indirectly employing more than one million people. Most general aviation aircraft operating around the world are manufactured and/or completed in the U.S., and our industry is continuing to build a strong American manufacturing and employment base that contributes positively to our national balance of trade. Congress recognized just how fundamental general aviation is to our nation's transportation system, rural economies, manufacturing capability, and balance of trade when it passed the General Aviation Revitalization Act a little more than a decade ago.

FACTS ABOUT BUSINESS AVIATION

Business aviation, as many members of the Subcommittee know, is an FAA-defined term. According to the FAA, business aviation is the use of any general aviation aircraft – piston or turbine – for a business purpose.

From creating growth opportunities and global connectivity for America's small towns and rural areas to supporting the nation's productivity, business aviation is an important economic engine, creating jobs and investment, while contributing to the world's leading aviation system. Simply put, business aviation is a vital part of the nation's economy and transportation system.

The U.S. aviation system is fully integrated. Each player is critical to the success, strength and growth of our economy. The system is made up of three segments:

- Scheduled operations, including passenger airlines;
- Military, and;
- General aviation.

General aviation includes diverse operations, with business uses that range from agriculture, to law enforcement, to fire and rescue services, to varied government, educational, nonprofit and business organizations. Servicing and supporting these organizations are FBO's, maintenance technicians, suppliers and service providers.

The business aviation fleet is dominated by pistons and turboprops, with over 80 percent of the 15,000 registered business aircraft in the U.S. having cabins about the size of an SUV, and flying on average less than 1,000 miles. The vast majority of these GA operators use small aircraft that seat no more than eight people.

A Vital Lifeline for Main Street

In small towns and rural areas across America, business aviation is an essential tool that enables businesses to thrive, grow and create jobs in their hometowns. That's because in many instances, there are no other transportation options that meet their needs.

Many small and mid-size businesses are located in areas without scheduled airline service. Businesses of all sizes require in-person travel for such operations as sales, technical support and other types of customer service. Such trips may call for multiple stops in a short period of time or travel to remote locations. Often, the distances are too long to drive or airline service is not available.

A 2009 survey of business aviation pilots and passengers, conducted for NBAA by Harris Interactive, concludes that managers and other mid-level employees are the typical passengers on business aircraft. Only 22% of passengers on business aircraft are top management (i.e., a company's Chairman, Board Member, CEO or CFO); the majority are other managers (50%) and or technical, sales or service staff (20%).

A Lifeline in Disaster and Emergency

The business aviation community is not only an economic lifeline for thousands of our nation's communities; it also supports people and communities both here and abroad during times of crisis.

Following the devastating earthquake that struck the island nation of Haiti on January 12, people from all corners of the business aviation community contacted NBAA with one central question: "How Can I Help?"

A tally of all the offers to donate time, aircraft, and expertise is difficult to gauge, but estimates are that business airplanes have conducted more than 700 fights, transported nearly 3,500 passengers, and delivered several hundred thousand pounds of supplies.

This staggering airlift started coming together immediately following the earthquake. Within two days after the quake hit, NBAA had logged hundreds of offers of flight support and other assistance from individuals and companies in business aviation.

Furthermore, estimates are that nearly 100 general aviation aircraft on humanitarian missions flew from the U.S. to the Haitian capital Port-Au-Prince in just the first five days after a local airport opened to humanitarian flights. During the two-day weekend after the airport opened, the U.S. military and the Federal Aviation Administration reported that 330 requests to land had been approved, with nearly half coming from civilian aircraft.

The people who rely on a general aviation aircraft for business are also dedicated to helping provide lifesaving flights to the communities in which they live and work. Operations like the Corporate Angel Network arrange free air transportation for cancer patients traveling to treatment using the empty seats aboard business airplanes. Angel Flight America's seven member organizations and 7,200 volunteer pilots arrange flights to carry patients to medical facilities.

Veterans Airlift Command uses business airplanes and unused hours of fractional aircraft ownership programs to provide free flights for medical and other purposes for wounded service members, veterans and their families.

Veterans Airlift finds volunteers in the business aviation community to fly missions on request and contribute the full cost of their aircraft and fuel for the missions flown.

ECONOMIC CHALLENGES FACING GENERAL AVIATION

Unfortunately, the people and businesses in general aviation, like other industries, are weathering one of the worst economic storms anyone has ever seen. The impact of the flagging economy on the companies and communities that rely on general aviation is visible in all parts of the country.

This past year, we have seen business aviation flying decrease by as much as 35 percent. The inventory of used airplanes available for sale reached an all-time high. Prices for business airplanes have declined by 40 percent, and employment at leading general aviation companies has fallen by as much as 50 percent.

SAFETY IS PRIORITY ONE

Mr. Chairman, The National Business Aviation Association views its most important responsibility as advancing business aviation safety and fostering development of industry safety best practices. Thanks to ongoing commitments to safe operating practices by NBAA and the professionals involved in business flying, our industry has achieved a level of safety comparable to that for the nation's commercial airlines. Yet, in spite of the safety milestones recognized here and, the overall safety record for the industry, we know that even one aircraft accident is too many. Every accident is a loss for the industry and an opportunity to learn and improve. Aviation remains the safest form of transportation. Continual improvements in technology and training are pushing accident rates lower and lower. But even with these advances, the aviation community must continue to be focused on improving safety performance.

NBAA has been an active participant in issues affecting the on-demand charter community for decades. NBAA's membership includes many of the country's on-demand charter companies.

As this Committee knows so well, Part 135 covers a very wide variety of passenger, cargo and utility flying. This includes regular passenger and cargo flights, specialty work such as air tours, sight seeing, helicopter external load and fire fighting, and life saving missions carrying critical patients and organ teams. Part 135 satisfies many of the common safety requirements across all of these operating environments while allowing operational flexibility to accomplish a long list of missions.

Involvement with 125/135 Aviation Rulemaking Committee

In 2003, I agreed to co-chair the FAA's Part 125/135 Aviation Rulemaking Committee, which had an ambitious goal of updating Part 135 regulations and determining recommendations for the future of Part 125. After two years of dedicated work by hundreds of industry volunteers, we submitted over 140 recommendations to the FAA addressing a myriad of issues affecting Part 135 operations including pilot training, flight duty and rest limits and FAA oversight, among others.

As the DOT IG report on "On-Demand Operator Safety Issues" correctly identifies, there has been little public movement on the important safety

recommendations submitted by the ARC. Since our submission in 2005, new leadership at FAA has taken a renewed interest in following through with our work. We are hopeful that this effort will result in regulatory changes that will enhance safety for Part 135 operators.

On the issue of changes to flight duty and rest requirements, we should point out that the recommendation submitted to the FAA had the majority consensus of all ARC steering committee members but one – which submitted a dissenting opinion. The flight duty and rest recommendation addressed every element of duty limits and rest requirements that the FAA is trying to achieve with the scheduled Part 121 carriers.

DOT-IG Report on "On-Demand Operator Safety Issues"

Some of the issues discussed in the DOT-IG report focused on challenges faced by operators in receiving required approvals from the FAA. Other issues involved delays in updating Part 135 regulations to reflect the current state of the industry. As the DOT-IG report correctly indicates, many of the safety elements of Part 135 remain largely unchanged since their introduction in 1978 despite significant advances in aircraft, avionics, technology and operational complexity.

However, we should also note that the report's comparison of safety requirements of Parts 121 and 135 does so without a discussion of some of the important considerations that led to the development of separate regulations.

The fact that the FAA regulations contain separate requirements for scheduled air carriers and on-demand operators is no accident. FAA's primary mission is the safety of the public in air travel. An important element of this protection is the expectation and influence of the customer traveling by air. In Part 121 operations, the expectation of the customer is that by purchasing a ticket, the air carrier manages all aspects of the operation, including safety, maintenance, departure and arrival times, route of flights and service.

Conversely, under Part 91, the basic aviation safety and operating rules, the operator of the aircraft assumes full responsibility for safety, since there are no paying passengers.

Part 135 allows passengers to play a larger role in determining certain operational parameters of a chartered flight. This increased involvement by customers is facilitated by safety requirements that reflect the variability and complexity of operator.

Over the years, specific updates to Part 135 have reflected the growing complexity of on-demand operations. As an example, in 2008, the FAA required Part 135 operators to evaluate the same considerations as scheduled air carriers conducting extended range flights with aircraft having only two engines. Known as ETOPS, this air carrier concept brought a needed update to a regulatory structure constructed around the operation of piston and turboprop aircraft. Now, complex turbojet aircraft with ranges approaching those of airliners operating under Part 135 must develop their flight plans to remain within three hours of an airport, just like the airlines.

While large portions of Part 135 remain untouched from its introduction in 1978, added requirements reflecting the latest safety analysis and research have improved the safety record for the industry. Technological improvements such as TCAS and EGPWS, CVRs and FDRs, have applied the same safety improvements to both Part 121 and Part 135. In setting its safety targets, the FAA has recognized that multiple approaches can achieve the same goal. There are many similarities between Part 121 and Part 135 which seek to achieve the same safety goal through alternate means of compliance, a fact that unfortunately is not covered by the IG report.

Elements of the Report

NBAA is concerned about some elements of the report that appear to be misleading. This concern, combined with an appearance of causal analysis for some aviation accidents – a purview set aside for the National Transportation Safety Board – is troubling, considering the DOT's long history of technical aviation reports. Additionally, we believe that the report's focus on only minimum required standards for some operators does not accurately reflect the full scope of requirements contained within Part 135.

Additionally, the sections of the report that discuss CRM, cabin attendant safety training and dispatchers, paint a incomplete picture of the issues and fail to provide a balanced analysis.

Minimum Flight Experience

Part 121, §121.437, Pilot Qualification: Certificates Required states that: "No certificate holder may use nor may any pilot act as a pilot in a capacity other than those specified in paragraph (a) of this section unless the pilot holds at least a commercial pilot certificate with appropriate category and class ratings for the aircraft concerned, and an instrument rating." A commercial pilot certificate requires 250 hours of flight experience. This is contrary to the report's statement that Part 121 requires 1500 hours and an Air Transport License as minimum pilot experience.

Maximum Flight Hours

Additionally, under Part 121, §121.471(a)(4) Flight Time Limitations and Rest Requirements: All Flight Crewmembers states: "No certificate holder conducting domestic operations may schedule any flight crewmember and no flight crewmember may accept an assignment for flight time in scheduled air transportation or in other commercial flying if that crewmember's total flight time in all commercial flying will exceed 8 hours *between required rest periods"* (emphasis added).

§121.471(b)(1), Flight Time Limitations and Rest Requirements: All Flight Crewmembers states: "Except as provided in paragraph (c) of this section, no certificate holder conducting domestic operations may schedule a flight crewmember and no flight crewmember may accept an assignment for flight time during the 24 consecutive hours preceding the scheduled completion of any flight segment without a scheduled rest period during that 24 hours of at least the following: 9 consecutive hours of rest for less than 8 hours of scheduled flight time." This could result in total flight time in a 24 hour period of *nearly 15 hours*. This is contrary to the statement in the DOT-IG report that the maximum flight time under Part 121 is 8 hours.

Aircraft Flight Instruments

Other comparisons also do not accurately compare similar types of operations and associated requirements. Table 2 of the report, while listing "the least restrictive regulations...for each subject," fails to indicate that equipment requirements such as Terrain Awareness and Warning Systems, Traffic Alert & Collision Avoidance Systems, Cockpit Voice and Flight Data Recorders and In-Flight Weather Radar are required under Part 135 for aircraft with 10 or more passenger seats.

The aircraft flight instruments identified in the DOT-IG report cost hundreds of thousands of dollars to purchase, test, install and certify to FAA standards. The cost of this equipment for small aircraft, those with nine or fewer passenger seats, can often exceed the value of the aircraft.

Maintenance

Additionally, maintenance programs for aircraft with 10 or more seats include aging airplane and continuous surveillance and analysis requirements.

Crew Resource Management

As the IG report correctly notes, the FAA published its CRM proposal in May 2009. This proposal stems from recommendations made by the Part

125/135 Aviation Rulemaking Committee. NBAA endorsed this ARC recommendation because of the value we have seen in its use by the large commercial air carriers. We look forward to seeing the final rule.

Cabin Attendant Safety Training

Another recommendation of the Part 125/135 ARC was additional safety training requirements for cabin safety personnel and passenger service specialists. As a passenger on a Part 135 aircraft, an expectation exists that a cabin attendant working on the flight possesses the necessary safety training needed to assist passengers in the event of an emergency. NBAA agrees with the need for cabin safety training.

Unfortunately, the inclusion of the Teterboro accident, which has been identified as possibly one of the most illegal flights ever conducted, where luckily no fatalities occurred, suggests that the industry conducts no training at all for its cabin attendants. NBAA is the only organization that offers a conference specifically dedicated to business aircraft cabin safety training. Thousands of cabin safety professionals have attended our training, which discusses the latest safety information and research.

On Demand Dispatchers

As we have discussed earlier, Part 135 encompasses an extremely wide variety of operations. The vast majority of Part 135 operations would be considered small businesses by the U.S. Small Business Administration. In order for a dispatcher to correctly perform his or her duties, both the business location and the aircraft need sophisticated electronics to allow communication both on the ground and in flight. It's not as simple as sending an email to a work colleague. This equipment is extremely expensive, often requiring monthly and annual service fees.

Part 135 already contains the concepts of airline dispatching in the requirements for exercising operational control of the aircraft. Operational control is much larger than simply starting the engines and making the aircraft turn left or right. Operational control is a concept that determines the legality of the flight, the crew, the aircraft and the passengers. In 2006, the FAA began an extensive campaign within the Part 135 industry to upgrade the industry's knowledge and understanding of operational control.

That effort resulted in significant changes to how Part 135 operators plan and conduct their flights. We believe that FAA's efforts on operational control have achieved what the DOT-IG report seeks to accomplish through the requirement of a dispatcher.

NBAA's Recommendations

The Part 135 industry has struggled to find its place among FAA's competing safety priorities. Having fewer safety inspectors – whose first priority is the large scheduled airlines – has often led to unanswered safety questions and in some cases, incorrectly applied safety standards by operators. We believe the following recommendations could play a dramatic role in improving oversight of the Part 135 community:

1. **Implement the recommendations of the Part 125/135 Aviation Rulemaking Committee**. These extensive recommendations address many of the issues identified in the IG report. We believe that prioritizing the ARC recommendations will substantially benefit the Part 135 industry.

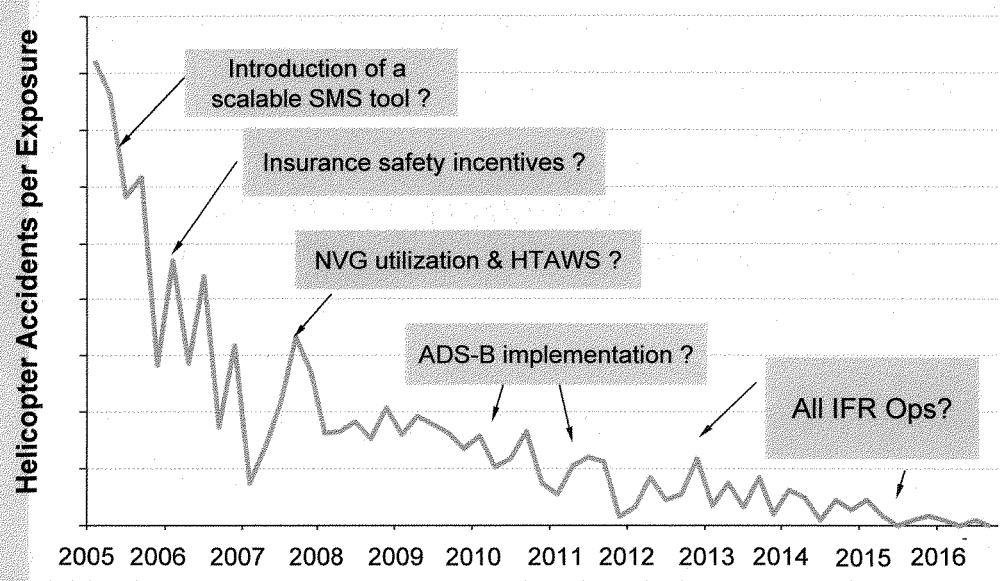
2. **Specific 135 training for new inspectors and during recurrent inspector training**. New inspectors receive very little exposure to the unique operational nature of Part 135 during their initial indoctrination training in Oklahoma City. We believe that more than a casual acknowledgement of Part 135 would give inspectors more confidence when charged with overseeing those operators, and would allow for a more seamless transition between classroom and real-world oversight.

3. **Balance inspector workload with available resources**. Today, it is not uncommon for a single operator to oversee one to two dozen Part 135 certificates. This volume of work does not allow an inspector to provide the same level of oversight to certificates as a large air carrier gets with a single inspector who is assigned to a single carrier. Better allocation of inspector resources could allow for more interactive and in-depth oversight, hopefully revealing areas for improvement before accidents occur.

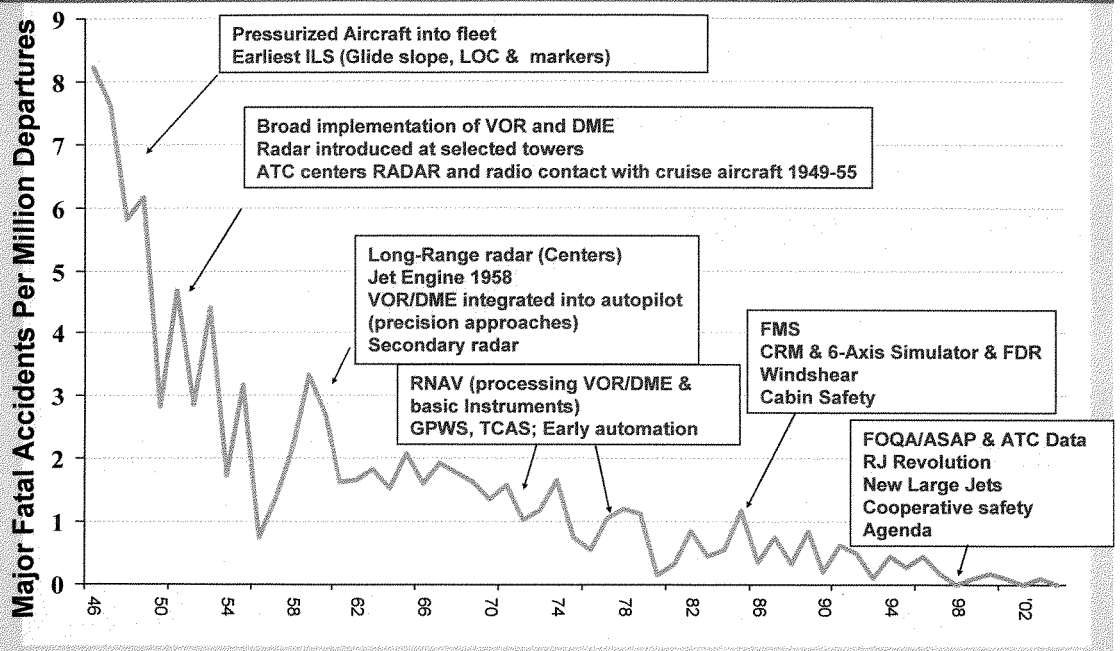
CONCLUSION

In conclusion, NBAA is committed to aviation safety. We will continue to work with Congress, industry leaders, government agencies, academic researchers and aircraft operators to exchange insights and information about safety and operational best practices with the shared goal of keeping the U.S. aviation system the safest, largest and most efficient in the world. NBAA and our Member Companies across the nation look forward to working with this Subcommittee to continue this effort.

Example of Potential Breakthroughs in Helicopter Accident Rates



Factors That Led To Breakthroughs in Major Fatal Accident Rates Since 1946



Statement of

James K. Coyne, President

Air Charter Safety Foundation

before the

Subcommittee on Aviation

Committee on Transportation and Infrastructure

U.S. House of Representatives

Hearing on

Federal Aviation Administration Oversight of

On-Demand Aircraft Operations

March 17, 2010

2167 Rayburn House Office Building
Washington, DC

Appearing for ACSF:
James K. Coyne, President
Air Charter Safety Foundation
4226 King Street
Alexandria, Virginia 22302
(703) 845-9000

Chairman Costello, Ranking Member Petri, and Members of the Subcommittee:

Thank you for this opportunity to appear before you today to discuss the Federal Aviation Administration's (FAA) oversight of on-demand aircraft operations.

INTRODUCTION

My name is James K. Coyne, and I am president of the Air Charter Safety Foundation (ACSF). The ACSF, founded in 2007, is a 501 (c)(3) non-profit foundation established to improve the safety of the air charter and shared aircraft ownership operations. The ACSF vision is to enhance the safety and security of air charter and shared aircraft ownership providers in the United States and worldwide. Through research, collaboration and education, the ACSF advances charter industry standards and best practices, promulgates safety, security and service benchmarks, and promotes the universal acceptance of safety management systems. The ACSF also provides accurate and objective information about air charter providers as one of the most important and versatile public transportation resources. ACSF members include Part 135 certificate holders, OEMs, brokers, insurers, customers, airports, and safety professionals.

IMPROVING THE SAFETY OF OPERATIONS

Since inception of the organization in June 2007, the ACSF has made great strides to improving the safety of operations. Such accomplishments include the following programs:

ACSF INDUSTRY AUDIT STANDARD, REGISTRY, AND AUDITOR TRAINING

The ACSF, with the cooperation of leading charter operators, fractional program managers, charter brokers, corporate charter customers, and aviation auditors, developed the ACSF Industry Audit Standard (IAS) that comprehensively evaluates both an operator's safety management system and its Part 135 regulatory compliance and fosters a corporate culture of continuous safety improvement.

The ACSF does not conduct the audits. Instead, it trains auditors on the ACSF IAS, and oversees these approved individuals as they perform the actual audit function. To date, 24 audits have been conducted with another 28 being performed in 2010. An online registry has been created, including the contact, fleet, and safety details of any operator who has successfully completed the ACSF IAS, that is available free of charge to the public to facilitate verification of an operator's IAS registration.

AVSiS

The ACSF also released AVSiS, or Aviation Safety Information System, a software program for, and available at no charge to, the on-demand and shared aircraft ownership industry that addresses the need to maintain a constant watch for emerging safety issues within their operations. AVSiS is an Internet-enabled safety event and management system that collects detailed safety event data for analysis, response deployment and success measurement.

SAFETY MANAGEMENT SYSTEM COMPLIANCE

The ACSF is also working aggressively to ensure that its members meet Safety Management System (SMS) standards established by the International Civil Aviation Organization (ICAO). SMS is a management system for integrating safety activities into normal day-to-day business practices and is designed to help organizations integrate a systematic risk-based and process-oriented approach to managing safety.

SMS is commonly described as having four "pillars" to its makeup: safety policy, including defined policies, procedures, and organizational structures; safety risk management, a formal system of hazard identification and tracking, analysis and risk mitigation; safety assurance, including internal audits and corrective action; and safety promotion, including establishing safety as a core value with training and communication that support a positive safety culture.

The ACSF IAS evaluates SMS on four maturity levels that correspond to the FAA and ICAO SMS framework, and each level details several sequential components that an operator must complete to have a fully implemented and functional SMS process. Additionally, the ACSF IAS concurrently evaluates an operator's regulatory compliance with on-demand and/or fractional ownership regulations.

RISK ASSESSMENT CHECK

The National Air Transportation Association (NATA), in collaboration with the ACSF, launched NATA RA Check, an online risk assessment tool that combines a highly comprehensive FAA-endorsed risk assessment tool with the automation necessary to make its use quick, easy, and accurate by fully automating the FAA-published Flight Risk Assessment Tool (FRAT), a worksheet-based tool designed to consider the probability, severity and weighted value of 38 leading accident causal factors. The FRAT is designed to identify potential hazards prior to flight and weigh the risk associated with each hazard through a five-step process. RA Check streamlines data-entry processes and provides further convenience as it is fully integrated with the Computing Technologies For Aviation Flight Operating System.

DOT IG REPORT ON ON-DEMAND CHARTER

The Department of Transportation (DOT) Inspector General (IG) released a report on July 13, 2009, titled "On-Demand Operators Have Less Stringent Safety Requirements and Oversight Than Large Commercial Carriers" that contained much factual information, but failed to present an accurate picture of the Part 135 regulatory environment.

The report cites numerous examples of differences between Part 135 and Part 121 regulations, but does not offer adequate explanation of the reasons for the variances. For instance, Part 121 is homogenous in regard to the type of aircraft and operations while Part 135 includes every possible mission profile and type of aircraft from a single-engine piston to a large cabin jet – the requirements are indeed different. The report fails to explain the wide-variety of aircraft included in this classification, such as helicopter EMS and off-shore work, single-engine piston-powered tour operations, just-in-time cargo carriers, and long-range international passenger-carrying turbojets. This variation presents a unique challenge when attempting to draw safety conclusions.

Another example of the discrepancies in the DOT IG report are the Terrain Awareness and Warning Systems and In-Flight Weather aircraft flight instrument requirements, which are mandated for Part 121 but not for all operators in Part 135. The DOT IG claims that this is one of the least restrictive regulations of aircraft flight instruments for on-demand aircraft. However, no contextual information or explanation is given for why it might not be feasible to install such equipment in single-engine aircraft, which fly only in Visual Flight Rules (VFR) weather conditions.

Also, in an apparent effort to bolster an argument for adding a dispatcher requirement to Part 135, the IG attempts to assume the role of the National Transportation Safety Board (NTSB) by suggesting that if a dispatcher had been present, the 2001 crash of a Gulfstream III aircraft may have been averted. The ACSF is quite alarmed that the DOT IG, performing perfunctory review of accidents, believed it was more knowledgeable and qualified than the NTSB to be able to make this assertion. The primary cause of that accident, as determined following an extensive NTSB investigation, was operation of the aircraft below approach minimums in violation of the regulations. Pressure to land was listed as one of the six contributing factors. Assessing aircraft accidents, determining cause and suggesting procedural or regulatory changes to prevent similar future accidents is a role for which the DOT IG is poorly equipped, and it should be left to the experts at the NTSB.

AIR CHARTER DATA

The NTSB accident database shows that 26 of the fatalities in 2008 resulted from seven helicopter accidents. But there is no further analysis to put that particular fact into context. Knowing the helicopter accident rate would allow us to put into perspective the severity of the 2008 accident record. Currently, the NTSB cannot provide a Part 135 helicopter accident rate because flight hours are not tracked by aircraft type.

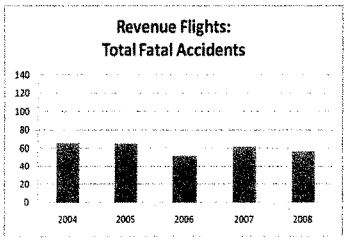
The current method for collecting Part 135 data produces a mixed picture. The ACSF agrees that an accurate understanding of the industry is necessary to address safety concerns successfully. Developing the ability to analyze accident rates by type of aircraft or mission would provide a far clearer picture than we have today. It would allow voluntary safety actions, guidance, oversight and regulatory initiatives to be directed at the areas where they are most needed, while permitting us to look to those operations with lower accident rates for possible best practices that can be more widely promoted and adopted.

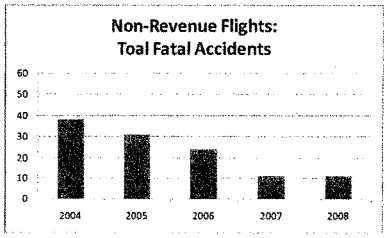
The NTSB released preliminary aviation accident data for 2007 that revealed there were no fatal passenger-carrying accidents involving jet airplanes being flown either by on-demand air charter operators or by shared aircraft ownership program companies.

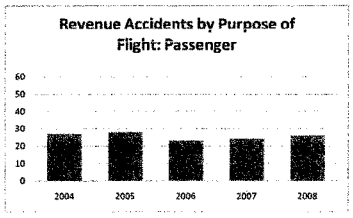
The ACSF compiled a report titled "Part 135 Accident/Incident Review," covering the years 2004-2008, to identify the flight purpose, weather conditions, and phase of flight for Part 135 on-demand charter-related accidents. The ACSF provided this report to the DOT IG as well as much basic information about the Part 135 industry. This accident/incident report is unlike others of its kind produced by the NTSB, FAA or other groups in that it determines the specific type of mission of each accident flight. Accident/incident information was obtained from the NTSB and flight activity data was obtained from the FAA, unless otherwise specified.

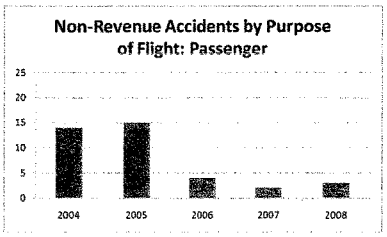
The report also includes a review of non-revenue flights associated with Part 135 operators. These flights include positioning legs, maintenance ferry flights, and instructional flights, to name a few. In order to be considered for this report, an accident had to occur on a leg of flight likely to be under the operational control of a Part 135 certificate holder. Accidents on flights related to Part 91 owner flights were not considered.

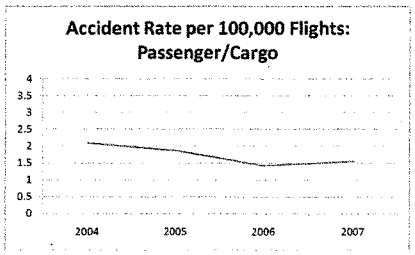
This study is a critical step toward identifying trends in Part 135-related accidents, including revenue and non-revenue flights. The identification of trends is crucial to focusing industry safety resources on higher-risk operations. Reports and narratives use inconsistent language, both within each agency and between the two agencies. More detailed reporting of purpose categories and establishing consistent language for both agencies for accident reporting would be very beneficial to the safety efforts of the government and industry.











Key factors that explain the improvement in Part 135 accidents:

- Rapid expansion in the use of glass cockpits, especially but not only in fixed-wing aircraft
- Introduction of ADS-B (Capstone in Alaska)
- Sustained expansion of business jets in Part 135 service
- Sustained expansion of turboprops in fleet and the near disappearance of reciprocating helicopters

The ACSF is committed to improving data collection and safety analysis for the Part 135 on-demand air charter industry. The ACSF believes that industry and government must work together to develop enhanced data collection tools that will permit the NTSB to develop a far clearer picture of the industry than is available today.

CONCLUSION

Part 135 accident rates have steadily improved in recent years. There were just two fatal accidents in 2009. Fleet trends and advancing technology promise continued improvements. The continued efforts of the FAA, NTSB and industry have made improvements to safety that have elevated it to the high level at which it stands today. This does not mean that there is no more room for improvement, work still needs to be done on VFR in weather; VFR in IMC; and continued airworthiness. The FAA's advancement of NextGen, SMS, and continual safety improvements in

standardization and the safety recommendations program are essential components in improving Part 135 safety.

Thank you for the opportunity to testify, and I will be happy to answer any questions you may have.

AIR CHARTER
SAFETY
FOUNDATION

Part 135 Accident/ Incident Review

2004 - 2008

Introduction

The intent of this report is to identify the flight purpose, weather conditions, and phase of flight for Part 135 on-demand charter-related accidents. This report is unlike others of its kind produced by the National Transportation Safety Board (NTSB), Federal Aviation Administration (FAA) or other groups in that it determines the specific type of mission of each accident flight. All data was obtained from the NTSB or FAA unless otherwise specified. Accident/incident information was obtained by the NTSB. Flight activity data was obtained from the FAA.

This report also includes a review of non-revenue flights associated with Part 135 operators. These flights include positioning legs, maintenance ferry flights, and instructional flights, to name a few. In order to be considered for this report, an accident had to occur on a leg of flight likely to be under the operational control of a Part 135 certificate holder. Accidents on flights related to Part 91 owner flights were not considered.

Lack of Data

The information presented here is not the most complete picture of the Part 135 industry, but it is the best representation based on data currently available. For instance, no accident rate can be determined for cargo versus passenger Part 135 flights because the FAA does not differentiate cargo from passenger activity in the FAA General Aviation and Part 135 Activity Survey.

In addition, investigators from the NTSB and FAA often do not request detailed information on positioning legs. Therefore, some interpretation is needed to determine if a flight was under a certificate holder's operational control.

The Air Charter Safety Foundation (ACSF) is examining methods to improve the collection of operational data for the on-demand air charter industry so more meaningful and in-depth analysis can occur.

ACSF will use the information obtained from this study to work with the NTSB and FAA on possible enhancements to current data collection methodologies.

Accident Factors

Purpose for Flight

This study breaks accident/incident flights into several basic purpose categories:

- Air medical – These flights are typically conducted in airplanes and are frequently not emergency or trauma-related flights. Helicopter Emergency Medical Services (HEMS) operations could be of an emergency nature or might be hospital or medical facility transfers. "EMS" is a bit of a misnomer, but the terminology is retained in this report in order to remain consistent with NTSB and FAA terminology.
- Cargo – These flights carry freight, mail, or other cargo but do not carry non-company passengers.
- Passenger – These flights include traditional passenger transportation. Flights may be for business, personal or leisure purposes.
- Sightseeing – These flights are referred to by the FAA as Air Tour flights. This category does not include sightseeing flights that fall under Part 91 rules or Part 91 waivers.
- Other/Unknown – These flights might be proficiency checks, maintenance ferries, or for other purposes. To the extent information is available in NTSB reports, the purpose of these flights will be identified in text.

Flight Conditions

This study also looks at accident/incident flights in terms of prevailing flight conditions at the initial accident/incident occurrence:

- VMC – Visual meteorological conditions (day)
- IMC – Instrument meteorological conditions (day)
- IMC/VMC – Mixed conditions
- NIMC – Night instrument meteorological conditions
- NVMC – Night visual meteorological conditions
- Unfortunately, the available NTSB reports do not uniformly reflect if a flight plan was filed and active, and if so, whether it was a VFR or IFR flight plan.

Phase of Flight

This study separates accident/incident flights by the phase of the initial accident/incident occurrence:

- Approach
- Circling
- Climb
- Cruise
- Descent
- Hover
- Landing
- Maneuvering
- Missed approach
- Standing
- Takeoff
- Taxi
- Other/Unknown

Aircraft Type

This study also separates accident/incidents by the type of aircraft:

- Turbojet
- Rotorcraft single engine
- Rotorcraft twin engine
- Single engine piston
- Single engine turboprop
- Twin engine piston
- Twin engine turboprop
- Other

These general aircraft types are used to remain consistent with FAA activity data.

Revenue Flights 2004 - 2008

Fatal Revenue Flights 2004 – 2008

	2004	2005	2006	2007	2008
Fatal Accidents	23	11	10	14	19
Non-Fatal Accidents	43	54	42	48	38
Total Accidents	66	65	52	62	57
Fatalities	64	18	16	43	66

Revenue Accidents by Purpose of Flight

	2004	2005	2006	2007	2008
Air Medical	8	3	4	9	6*
Cargo	26	25	16	24**	21
Passenger	27	28	23	24	26
Sightseeing	5	9	7	6	4
Other/Unknown	0	0	2	1	1
Total	66	65	52	64	58

* One air medical accident in 2008 involved two aircraft. Therefore, although the total number of accidents in 2008 is 57, 58 aircraft/flights will be reflected in the following charts.

** Two separate cargo-related accidents in 2007 involved two aircraft. Therefore, although the total number of accidents in 2007 is 62, 64 aircraft/flights will be reflected in the following charts.

Other/Unknown Flights:

2006: One external load; one positioning flight
2007: One instruction flight
2008: One external load flight

Accident Rates

Accidents/100,000 Hours	2004	2005	2006	2007	2008
Air Medical	1.69	0.496	0.571	0.978	N/A
Cargo/Passenger	2.09	1.86	1.42	1.54	*
Sightseeing	2.23	2.56	2.37	1.18	*
Other/Unknown			N/A	N/A	*
Total	2.04	1.70	1.39	1.54	*

Note: FAA activity data does not distinguish between cargo and passenger flights. Instead, both types of flights are grouped in Air Taxi.

*2008 activity data is not yet available.

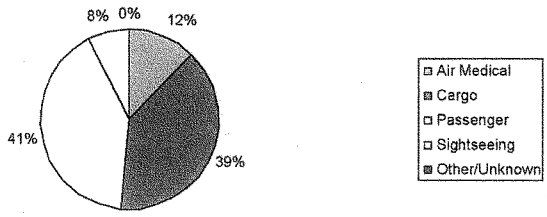
Trends in Passenger Flights:

One trend is clear in passenger revenue flights: helicopter flights to/from oil rigs in the Gulf of Mexico and near Alaska are a disproportionate number of passenger revenue flights.

	2004	2005	2006	2007	2008
Oil-related Flights	8	5	3	5	2
Percentage of Total Passenger Accidents	30%	18%	13%	21%	8%

Note: This flight activity is not tracked separately by the FAA, so a rate cannot be calculated.

2004



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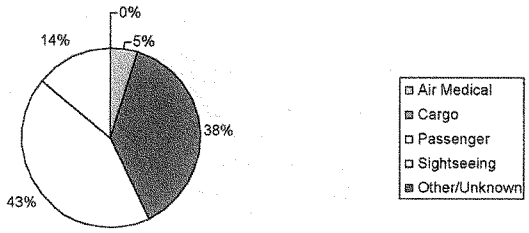

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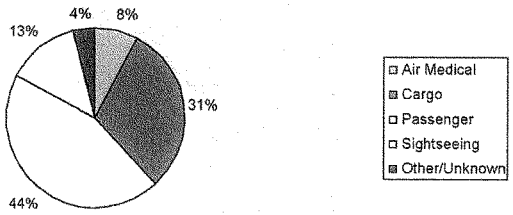
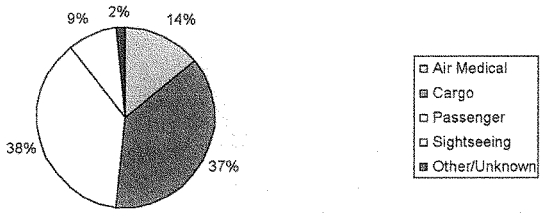
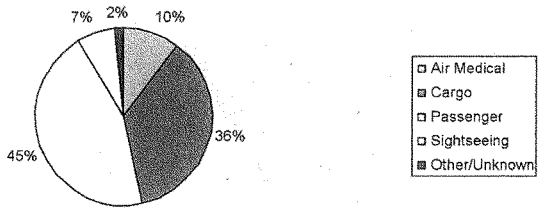


2007


9%
2%
14%
38%
37%
Air Medical
Cargo
Passenger
Sightseeing
Other/Unknown

2008

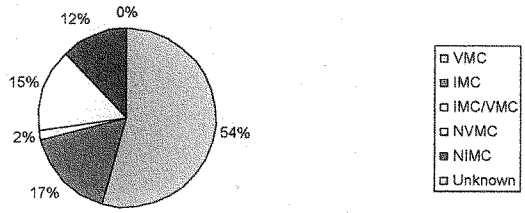

7%
2%
10%
45%
36%
Air Medical
Cargo
Passenger
Sightseeing
Other/Unknown

Revenue Accidents by Flight Conditions

2004 – 2008

	2004	2005	2006	2007	2008
VMC	36	49	36	41	37
IMC	11	3	3	5	5
IMC/VMC	1	1	2	1	1
NVMC	10	8	7	12	9
NIMC	8	4	4	4	4
Unknown	0	0	0	1	2
Total	66	65	52	64	58

2004



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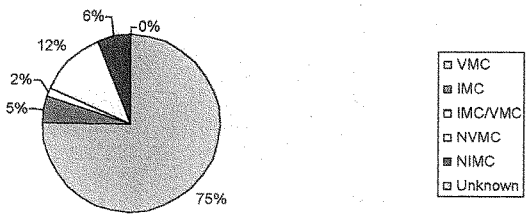

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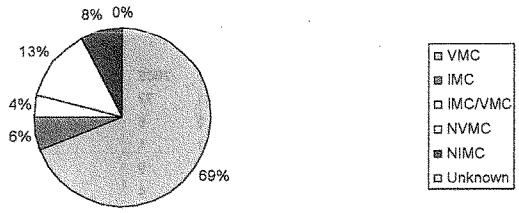

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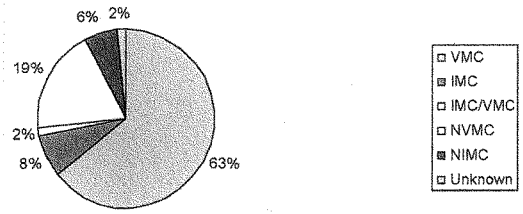

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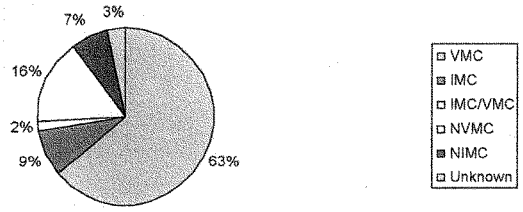
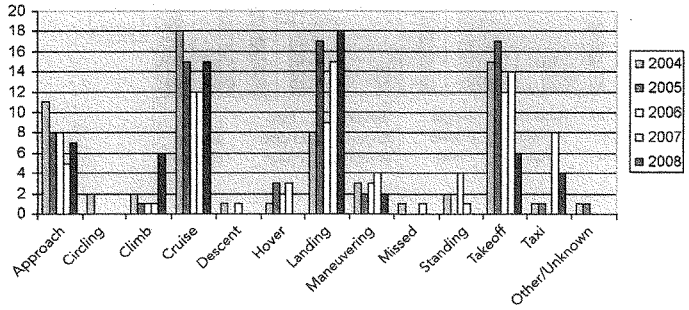


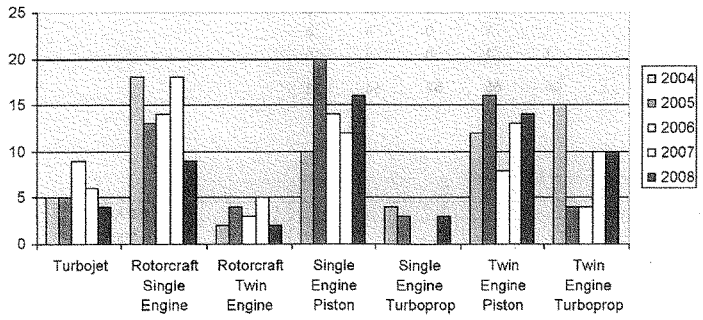
Revenue Accidents by Phase of Flight

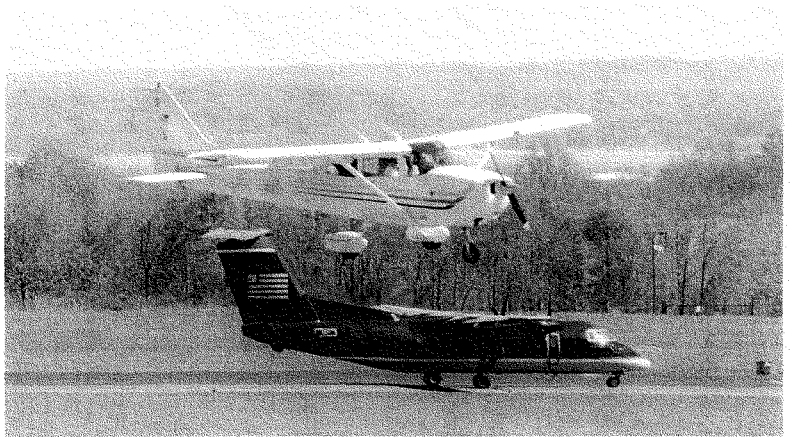
	2004	2005	2006	2007	2008
Approach	11	8	8	5	7
Circling	2	0	0	0	0
Climb	2	1	1	1	6
Cruise	18	15	12	12	15
Descent	1	0	1	0	0
Hover	1	3	2	3	0
Landing	8	17	9	15	18
Maneuvering	3	2	3	4	2
Missed	1	0	0	1	0
Standing	2	0	4	1	0
Takeoff	15	17	12	14	6
Taxi	1	1	0	8	4
Other/Unknown	1	1	0	0	0
Total	66	65	52	64	58



Revenue Accidents by Aircraft Type

	2004	2005	2006	2007	2008
Turbojet	5	5	9	6	4
Rotorcraft Single Engine	18	13	14	18	9
Rotorcraft Twin Engine	2	4	3	5	2
Single Engine Piston	10	20	14	12	16
Single Engine Turboprop	4	3	0	0	3
Twin Engine Piston	12	16	8	13	14
Twin Engine Turboprop	15	4	4	10	10
Total	66	65	52	64	58





Non-Revenue Flights 2004 – 2008

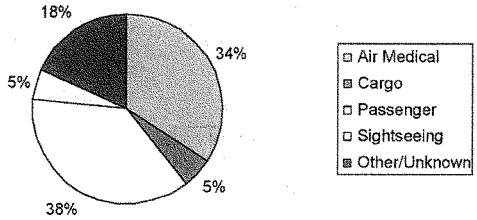
Fatal Non-Revenue Accidents and Fatalities

	2004	2005	2006	2007	2008
Fatal Accidents	13	9	6	2	4
Non-Fatal Accidents	25	22	18	9	15
Total Accidents	38	31	24	11	19
Fatalities	24	15	11	5	11

Non-Revenue Accidents by Purpose of Flight

	2004	2005	2006	2007	2008
Air Medical	13	9	11	4	7
Cargo	2	2	3	1	0
Passenger	14	15	4	2	3
Sightseeing	2	0	0	0	0
Other/Unknown	7	5	6	4	9
Total	38	31	24	11	19

2004



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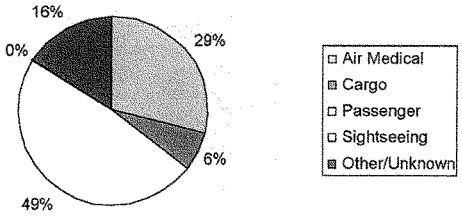

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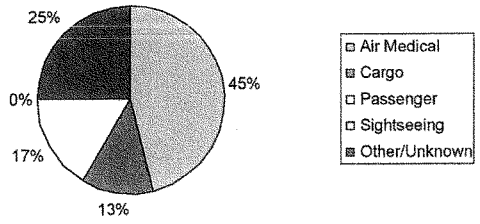

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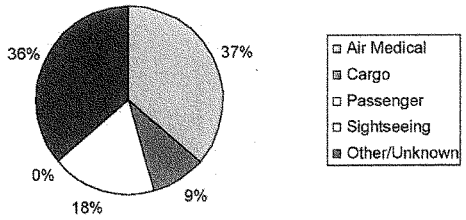

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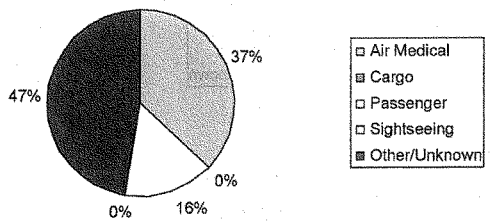
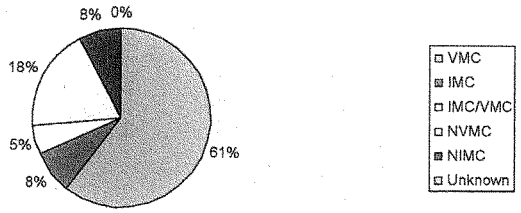


Non-Revenue Accidents by Flight Conditions

2004 – 2008

	2004	2005	2006	2007	2008
VMC	23	19	14	7	13
IMC	3	0	3	2	1
IMC/VMC	2	0	0	0	0
NVMC	7	8	4	1	5
NIMC	3	4	3	1	0
Unknown	0	0	0	0	0
Total	38	31	24	11	19

2004



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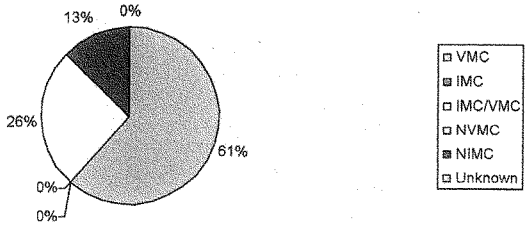

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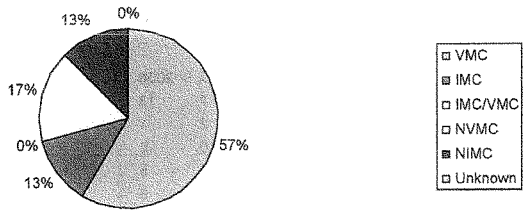

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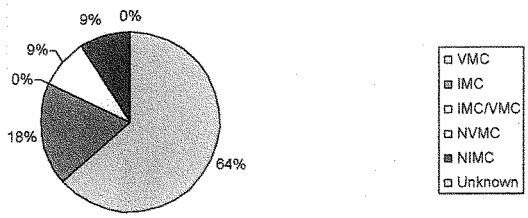

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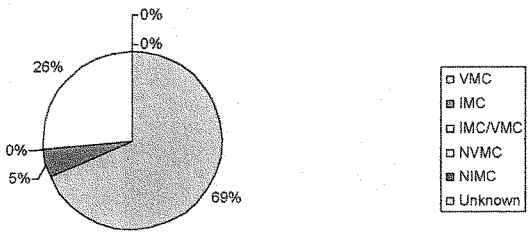
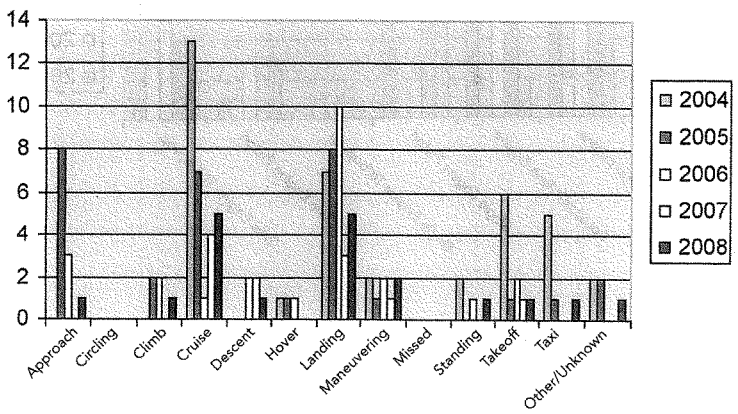


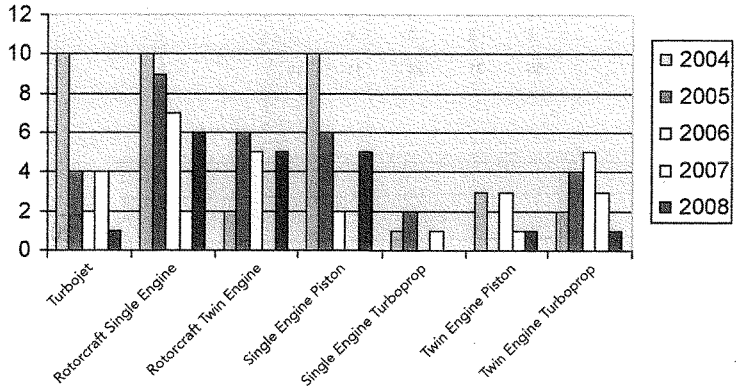
Non-Revenue Accidents by Phase of Flight

	2004	2005	2006	2007	2008
Approach	0	8	3	0	1
Circling	0	0	0	0	0
Climb	0	2	2	0	1
Cruise	13	7	1	4	5
Descent	0	0	2	2	1
Hover	1	1	1	0	0
Landing	7	8	10	3	5
Maneuvering	2	1	2	1	2
Missed	0	0	0	0	0
Standing	2	0	1	0	1
Takeoff	6	1	2	1	1
Taxi	5	1	0	0	1
Other/Unknown	2	2	0	0	1
Total	38	31	24	11	19



Non-Revenue Accidents by Aircraft Type

	2004	2005	2006	2007	2008
Turbojet	10	4	2	4	1
Rotorcraft Single Engine	10	9	7	2	6
Rotorcraft Twin Engine	2	6	5	0	5
Single Engine Piston	10	6	2	0	5
Single Engine Turboprop	1	2	0	1	0
Twin Engine Piston	3	0	3	1	1
Twin Engine Turboprop	2	4	5	3	1
Total	38	31	24	11	19

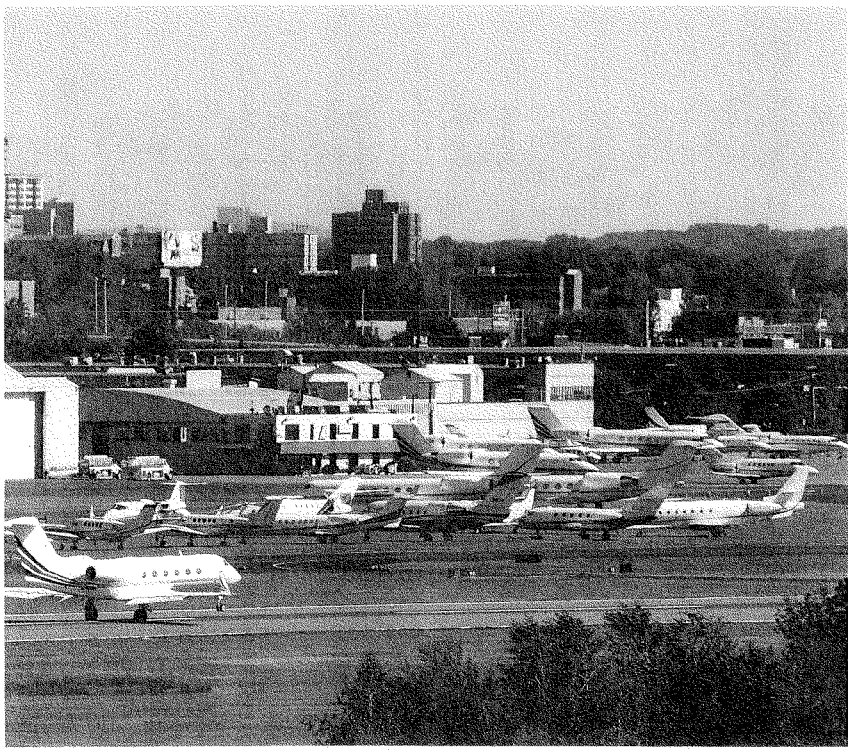


Conclusion

This study is a critical step towards identifying trends in Part 135-related accidents, including revenue and non-revenue flights. The identification of trends is crucial to focusing industry safety resources towards higher-risk operations. However, this study was limited in its analysis due to limitations on the data currently collected by the NTSB and FAA. In general, operating categories are too broad. Reports and narratives use inconsistent language, both within each agency and between the two agencies. More detailed reporting of purpose categories and establishing consistent language for both agencies for accident reporting would be very beneficial to the safety efforts of the government and industry.

ACSF Mission

The Air Charter Safety Foundation, through research, collaboration and education, advances charter and shared aircraft ownership industry standards and best practices; promulgates safety, security and service benchmarks; and promotes the universal acceptance of safety management systems.



Air Charter Safety Foundation
4226 King St. • Alexandria, VA 22302
P: 888-723-3135 • www.acsf.aero

STATEMENT OF MARGARET GILLIGAN, ASSOCIATE ADMINISTRATOR FOR AVIATION SAFETY, FEDERAL AVIATION ADMINISTRATION, BEFORE THE HOUSE COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE, SUBCOMMITTEE ON AVIATION ON THE FEDERAL AVIATION ADMINISTRATION'S OVERSIGHT OF ON-DEMAND AIRCRAFT OPERATIONS. MARCH 17, 2010.

Chairman Costello, Ranking Member Petri, Members of the Subcommittee:

Thank you for inviting me here today to discuss Federal Aviation Administration (FAA) oversight of on-demand aircraft operations. It is essential to any discussion regarding the safety and oversight of on-demand operations to define the nature and scope of those operations. Today, I would like to begin by doing that, in order to provide the appropriate context for our current oversight, our plans for an even more data-driven, systemic, risk-based oversight of these operations and actions we have taken to improve safety.

On-Demand Operations

On-demand operations are conducted under part 135 and consist of unscheduled operations conducted on aircraft that are smaller than those which are typically used in scheduled commercial service. On-demand operations typically involve non-scheduled flights in rotorcraft or small aircraft – aircraft with 30 seats or less – or all-cargo operations in rotorcraft or aircraft of comparable size. Typically, customers who use on-demand operators select the operator and then may negotiate all other relevant aspects of the flight including the type and size of aircraft, the date and time of departure, and the destination. Each flight can carry no more than 30 passengers, but often carries as few as one passenger per flight.

It is vital to any discussion of on-demand operations to understand the variety and uniqueness of each segment of such operations, especially as compared to part 121 operations. Generally, part 121 operators provide passenger and cargo service in jet aircraft or in large turboprops. They typically operate highly automated aircraft, at high en route altitudes (above terrain and weather), under instrument flight rules (IFR), with full air traffic control services, and to and from airports that meet strict FAA certification requirements.

Much like "general aviation" however, "on-demand" captures a collection of specific types of operations. The range of on-demand activities includes air tours, helicopter air ambulance service, off-shore energy operations shuttling workers to and from facilities in the Gulf of Mexico, all-cargo operations, service to isolated markets such as Alaska, business jet operations and "traditional" passenger service, as described below. This range of operations spans a wide array of activities and operating conditions.

Type of On-Demand Operation	**Characteristics**
Air Tours	mostly helicopter operations; daytime visual flight rules (VFR), low altitude; off-airport; key markets dominated by marine or mountainous environments (Hawaii, Alaska and the Grand Canyon region)
Helicopter Air Ambulance	low-altitude; helicopters; VFR; considerable night-flying; weather issues; off-airport sites
Off-Shore Energy	historically limited IFR support; helicopters; weather issues; marine environment; challenging landing sites
Cargo	single-engine aircraft, with some twins and some business jets; dominated by sub-contractors to major cargo airlines, check-haulers, and the Alaska market; VFR and substantial night flying
Alaskan Operations	dominated by small, single-engine helicopters and airplanes, including a large fleet of float planes; operations to-from isolated markets; extensive off-airport operations; weather and climate issues; terrain
Business Jet Market	IFR system; airport-to-airport; very different profile from other on-demand operations and a safety record that is comparable to that of part 121 operators
"Traditional" passenger service	wide range of fleets and operating environments, but most prevalent in Alaska; jets or capable turboprops used in the Lower 48
Other	some heavy lift, some survey, photography, etc., dominated by light airplanes and light helicopters in low-level operations

Also, unlike part 121 operations, on-demand flights are conducted to meet a particular customer's specific need for transportation that cannot be met by operators in scheduled service. On-demand customers typically seek transportation to reliever airports, off-airport sites, transportation with little or no notice, or transportation to or within remote areas. For example, a customer may wish to fly on an on-demand business jet to a reliever airport with minimal scheduled service, because of its proximity to the location of the passenger's business or because the closest major airport does not offer scheduled service that meets his or her business needs. Helicopter air ambulance operators respond to medical needs that are not predictable in terms of time, frequency, or even location. Remote villages in Alaska and even some in the continental United States may have short runways or even gravel landing strips. Thousands of energy workers along with their supplies must make daily trips to and from work on oil platforms in the Gulf of Mexico. These are important operations, but they are not suitable to be conducted under part 121.

On-demand operators would not be able to meet the needs they serve without the current regulatory flexibility. Operators offering scheduled commercial service do not serve certain airports due to insufficient passenger demand. Scheduled operators are also not permitted to go to certain locations because those operators must operate in and out of airports with runways that have certain facilities and characteristics that a gravel strip outside of a northwestern Alaskan village, an oil rig in the Gulf, or a hospital rooftop do not have.

The diversity of on-demand operations leads to an accident profile that is very different from that for part 121 operations. For example, for the period between FY 2002 and January 2010, 7 percent of on-demand accidents occurred in jets but 82 percent of part 121 accidents occurred in jets. During this same period, 14 percent of on-demand accidents occurred during operations to support off-shore oil but no part 121 accidents occurred in this market. These percentages show that, given the diversity in markets, the equipment that serves those markets, and the environments in which that equipment operates, a comparison between part 121 accidents and on-demand accidents does not provide a basis from which accurate safety assessments can be made. In contrast, if we were to compare on-demand operations over time, we would see a definite decline in the number of accidents due to the combined efforts of the FAA and the industry.

Oversight

On-demand operations present oversight challenges as unique as the operations themselves - the operations may be seasonal or sporadic, or the base of operations may be remote. Our inspectors meet these oversight challenges by using their expertise and experience with their assigned operators to plan their oversight activities. This approach ensures that all on-demand operators are meeting the standards of part 135 and allows inspectors sufficient flexibility to monitor risks that may be associated with the attributes of a particular type of on-demand certificate holder.

FAA oversight of on-demand air carriers consists of a national work plan entitled the National Program Guidelines (NPG), comprised of a baseline set of required inspections for each carrier. For example, inspectors conduct oversight of the operators' bases of

operation, records, training programs, and check airman programs on an annual basis. The required inspections are revised periodically to address risks identified by a variety of sources including surveillance data analyzed in the Safety Performance Analysis System (SPAS) during previous years' inspections. For example, for the 2010 work plan we added an inspection of an on-demand operator's procedures to conduct pilot records checks required by the Pilot Records Improvement Act.

The baseline, or required inspections, account for only 10-15 percent of an inspector's overall workload. Our national work plan requires the baseline inspections to be supplemented by a set of planned inspections, through which we expect the majority of oversight to occur. The planned inspection portion of our oversight is designed by FAA safety inspectors at the local level. Inspectors develop a planned inspection program for their assigned carriers based on both a safety assessment, using surveillance data contained in SPAS, and their expert evaluation of perceived risk for each of the operators they oversee. Further, inspectors are expected to modify planned inspection programs to account for risk areas they identify throughout the year.

Our current oversight program also includes the Surveillance Priority Index (SPI). The SPI is used by principal inspectors and regional offices to prioritize surveillance of the part 135 operators they oversee. The SPI allows the ranking of part 135 operators based on various risk factors and principal inspector input. The SPI tool creates a ranked order of assessed safety risks, which, together with an inspector's knowledge of the operator, become the basis for prioritizing planned inspections. This tool assists inspectors in prioritizing surveillance for their part 135 operators. The SPI tool allows the FAA to

leverage resources efficiently, focusing attention and surveillance where it is most needed.

We agree with the Department of Transportation Inspector General's recommendation that the use of the SPI should be mandatory, and we are in the process of revising the agency order that directs the oversight activities of FAA's on-demand aviation safety inspectors to include a specific requirement to use the SPI tool. I expect the revision to be complete before the end of the fiscal year. This revision will affect how an inspector who does not already use the SPI tool executes planned inspections and will be applicable to the work plan for next year's required inspections. In the meantime, I can report that 71 percent of our part 135 certificate management teams are already using SPI.

Additionally, SPI has served successfully as a model for the development of operation-specific safety initiatives. In Alaska, for example, we developed the part 135 Surveillance and Evaluation Program (SEP), to more effectively oversee small air carriers with higher accident rates. The SEP is comprised of two parts – the safety evaluation and risk assessment phase, and risk-based targeting of surveillance. The evaluation process provides an in-depth analysis of identified risks to determine root causes and correct systemic weaknesses. The data analyzed includes past surveillance activities, accident and incident events, enforcement history and the economic stability of an operator. The surveillance process is designed to target the surveillance work program on identified risks within a particular operator. Although we have not mandated SEP nationwide, it is used by inspectors in the oversight of all multi-pilot 135 certificate holders in Alaska and,

in some cases, by inspectors in the continental United States who oversee large part 135 operators and air ambulance or air tour operators.

Although current FAA oversight processes have contributed to an outstanding safety record, we continue to look for ways to make the system ever safer and anticipate future needs and challenges. We are optimizing FAA's oversight resources for on-demand operations to best target risk areas. We acknowledge that a more structured data-driven risk-based oversight system for all commercial operations is necessary. This is why we are developing the Flight Standards Safety Assurance System (SAS). While work on this new system is underway, the SPI tool and SEP will move us further toward our safety goals.

Once it is complete, the SAS will cover all commercial operations ranging from part 121 air carriers to on-demand operations. Under the SAS, part 135 operators will receive the same type of data driven surveillance as part 121 operators. The SAS will use hazard identification and risk assessment strategies to formulate surveillance plans and target FAA resources. We expect the SAS to be implemented at the end of 2013.

Safety

We acknowledge that the accident rate for on-demand operations is higher than that for 121 scheduled operations, and our safety professionals are constantly striving to make every air operation the safest as possible. For this reason, we formed an Aviation Rulemaking Committee to review part 135 regulations, and provide recommendations for

improvements. They provided us with over 100 recommendations in such areas as training, cabin safety and equipment, the majority of which we concur with.

One recent example of our work on the ARC recommendations is crew resource management (CRM) training. CRM focuses on communication and interactions among pilots, flight attendants, operations personnel, maintenance personnel, air traffic controllers, flight service stations, and others. CRM also focuses on single pilot communications, decision making, and situational awareness. This training is tailored to individual operators or types of operations and helps to prevent errors such as runway incursions, misinterpreting information from air traffic controllers, crewmembers' loss of situational awareness, and crewmembers failing to fully prepare for takeoff or landing. This is why we are in the process of rulemaking to require CRM for all part 135 operators.

In the interim, we have taken targeted action through a variety of avenues. Earlier this year, the FAA began using a satellite-based system, Automatic Dependent Surveillance-Broadcast (ADS-B), to more efficiently and safely separate and manage aircraft operations over the Gulf of Mexico and other off-shore facilities. Aircraft flying over the Gulf now know where they are in relation to bad weather. We have every reason to believe that ADS-B technology will result in significant safety enhancements in the Gulf. After the FAA established an ADS-B prototype in Alaska, outfitting numerous general aviation aircraft with ADS-B avionics, the improved situational awareness for pilots and the extended coverage for controllers resulted in a 47 percent dip in the fatal accident rate for equipped aircraft.

Improvements in technology alone cannot be the only efforts to lower the on-demand accident rate. While technology such as ADS-B has provided tremendous safety benefits for Alaska, the Alaska aviation community has also instituted education and training programs to enhance safety for the high volumes of on-demand operations that occur there. For example, the "Circle of Safety" education initiative targets aviation consumers, to remind them that they too play a role in aviation safety. The initiative encourages consumers to ask questions and have a better understanding of carriers they choose to fly with and to recognize that their pressure on a pilot to get to a destination can influence the safety of the flight.

Also, working with the Medallion Foundation, a non-profit organization promoting aviation safety in Alaska, the FAA developed visual cue-based training for air tour operators in Southeast Alaska to enhance pilots' understanding of and ability to recognize weather minimums and escape options. Through simulator training, the operator is able to tailor the training to the unique weather and terrain characteristics of the region. Cue-based training is being developed for other parts of Alaska as well as for air tour operators in Hawaii and New York, specific to the weather and terrain of those regions.

Safety improvements in air tour operations have also been made through regulation. The National Air Tour Safety Standards rule includes requirements that pilots complete helicopter performance plans. Since slow, low altitude operations are common in the air tour industry, performance plans identify the sufficient airspeed and height above the surface at which an aircraft must be operated so that pilots can safely land their aircraft in

the event of an engine failure. This rule also prescribes specialized operating requirements for air tours in Hawaii and for over water operations. Since the implementation of the air tour rule in February 2007, there have been no accidents attributable to an air tour operator.

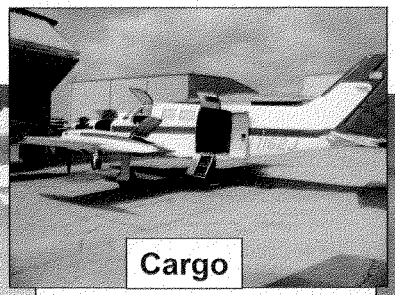
Despite the overall improvement in the safety of on-demand operations, there were spikes in fatal helicopter air ambulance accidents in 2004 and again in 2008. Between 2004 and 2008, we created a joint task force with industry to formulate and implement several voluntary safety initiatives, we issued multiple notices, bulletins, advisory circulars and the like to provide guidance to the industry to improve operational safety and promote a proactive safety culture among operators and we established a special committee to develop voluntary Helicopter Terrain Awareness and Warning System (HTAWS) standards. Because of these safety initiatives, the period from 2004 through 2007 showed a drastic reduction in helicopter air medical transport fatal accidents. However, the upward trend in 2008 prompted a more aggressive response. To this end, we are working on developing a draft Notice of Proposed Rulemaking (NPRM) to address several aspects of air ambulance operations. In addition, the FAA is proposing to amend regulations pertaining to all commercial helicopter operations conducted under part 135 to include equipment requirements, pilot training, and alternate airport weather minima. The intention of proposals under development would be to provide certificate holders and pilots with additional tools and procedures that will aid in preventing accidents and to address National Transportation Safety Board (NTSB), Aviation Rulemaking Committee, and internal FAA recommendations.

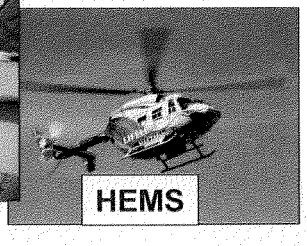
The history of on-demand operations shows that the accident rates have been trending downward. In addition to targeted safety initiatives, technical advances such as Global Positioning System (GPS), Glass Cockpit and Electronic Flight Bag technology have led to much more reliable aircraft and contributed to the improvements in aviation safety, as evidenced by a sharp decrease in controlled flight into terrain (CFIT) and loss of control in flight. Over the past ten years, the number of on-demand fatal accidents due to CFIT has dropped by more than 60 percent and the number of fatal accidents due to loss of control in flight has dropped by more than half. Notably, while the overall accident rate for on-demand operations is higher than for scheduled part 121 operations, it is at an all-time low, having dropped from 2.36 accidents per 100,000 flight hours to 1.23 accidents. The fatal accident rate has improved by an even greater proportion - evidence that our work has been effective.

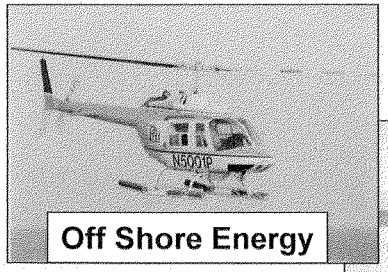
In conclusion, I want to reemphasize that on-demand operators conduct a wide variety of commercial operations, meeting diverse needs throughout the country. In some instances, it is appropriate to implement oversight practices or safety requirements for all on-demand operators. However, simply grouping on-demand operations together in order to assess risk does not take into account the true nature of on-demand operations and does not allow for an effective safety response to the risks of each type of on-demand operation.

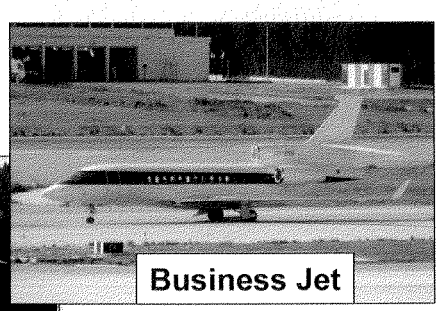
Mr. Chairman, Congressman Petri, Members of the Subcommittee, this concludes my prepared testimony. I would be happy to answer any questions you have.

Part 135 Operations

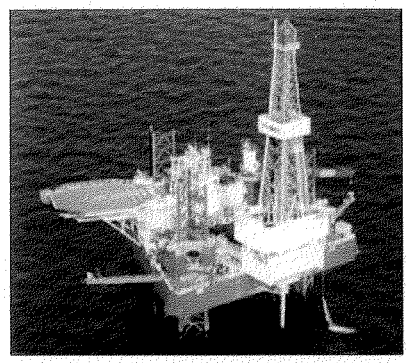


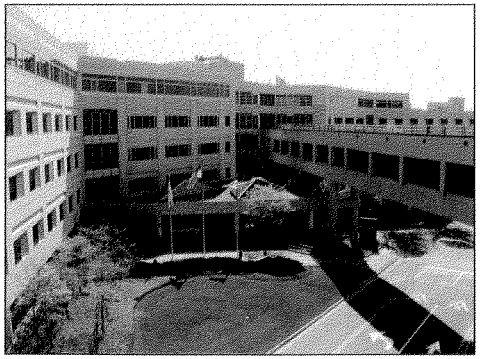


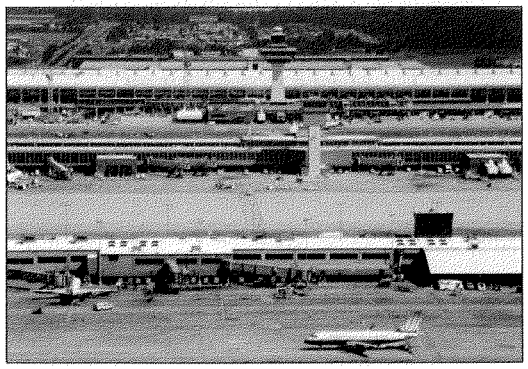




Part 135 Runways





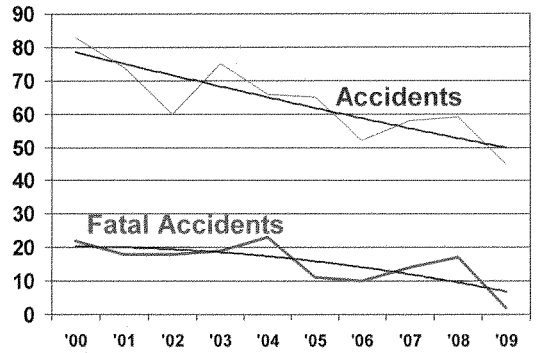


On-Demand Missions, Fleets & Environments

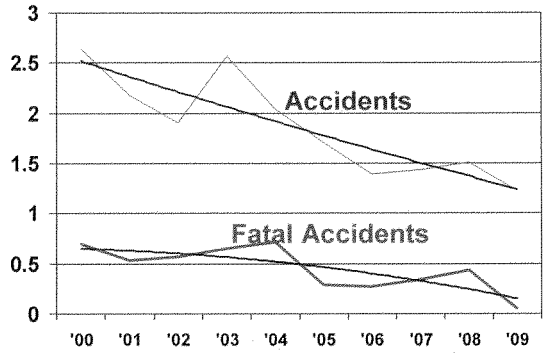
- Air Tour: mostly helicopters; day VFR; low altitude; big markets dominated by mountainous & marine environment.
- HEMS: low-altitude; helicopters; VFR; considerable night flying; weather issues; off-airport sites.
- Off-Shore Energy: Historically limited IFR support; helicopters; weather issues, challenging landing sites.
- Cargo: dominated by single-engine VFR, with some twins & business jets; also dominated by check-haulers, sub contractors to majors, & Alaska.
- Alaska: dominated by small, single-engine aircraft operating to-from isolated markets, off-airport sites, weather issues, limited navaids.
- Business Jet Market: IFR system; airport-to-airport; very different profile from other on-demand operations.
- "Traditional" passenger service: wide range of fleets and operating environments, but dominated by Alaska.
- Other – some survey, photography, air ambulance, heavy-lift, etc.

On-Demand Fatal Accidents & Rates

Number of Accidents & Fatal Accidents, 2000-2009

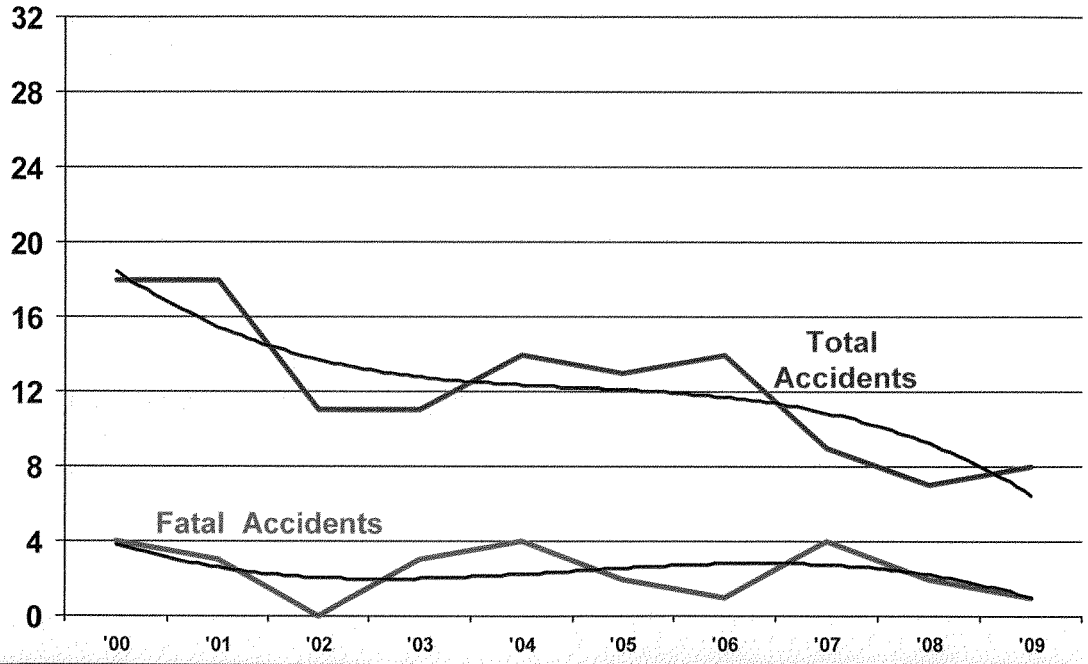


Accidents & Fatal Accidents Per 100,000 Flight Hours, 2000-2009

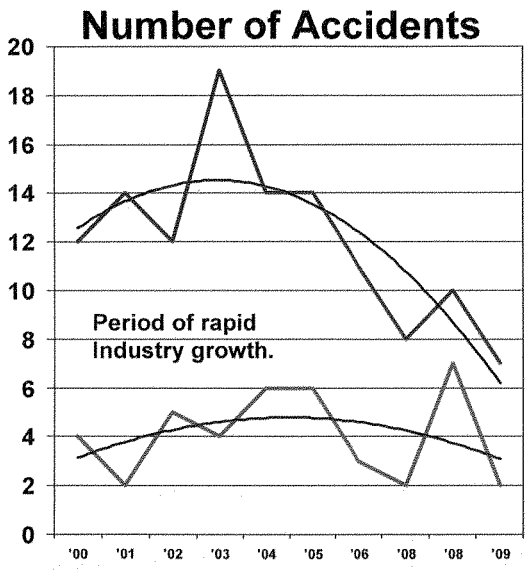


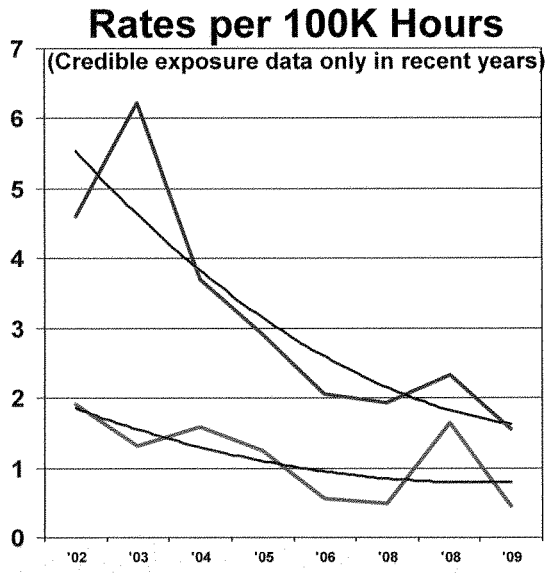
Note: the data depicted here include 6 cargo accidents from 2000 through 2003 that are erroneously recorded as "Scheduled Commuter" operations in NTSB data.

National Air Tour & Sightseeing Accidents

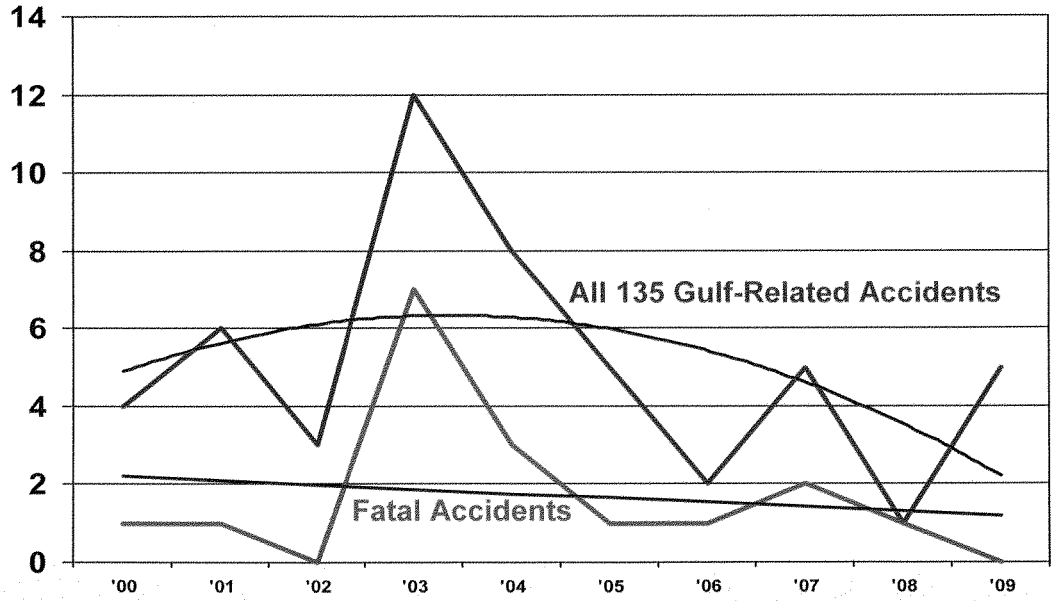


HEMS Accidents & Accident Rates (Part 135 and Part 91)

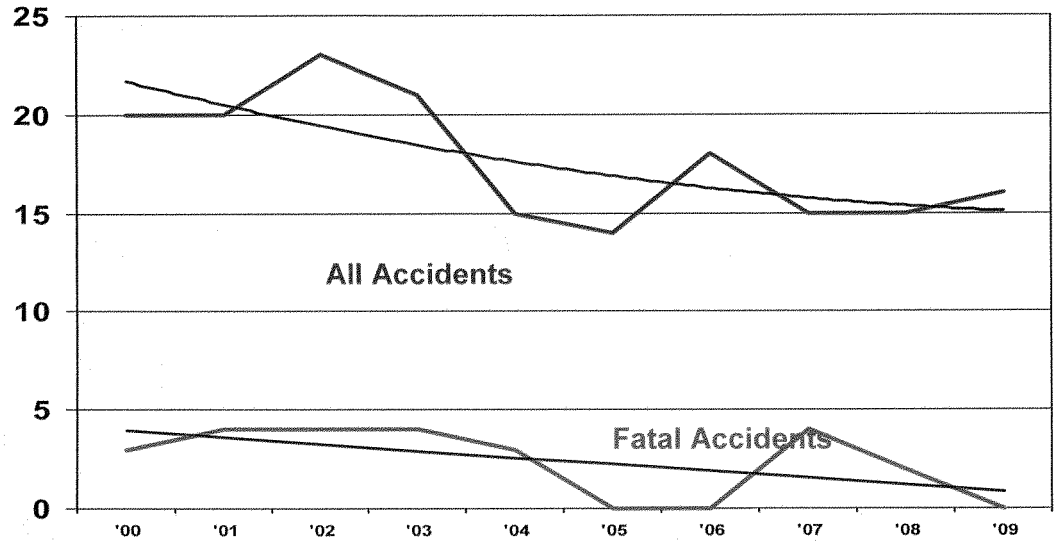




Part 135 Accidents Gulf of Mexico Energy Industry



Part 135 Accidents & Fatal Accidents in Alaska



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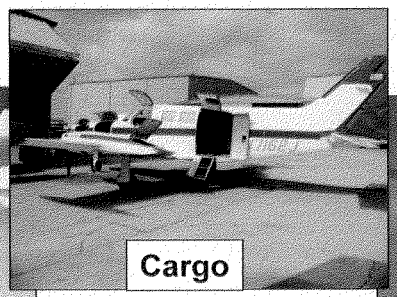
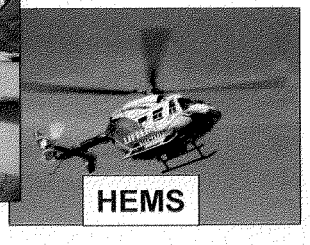
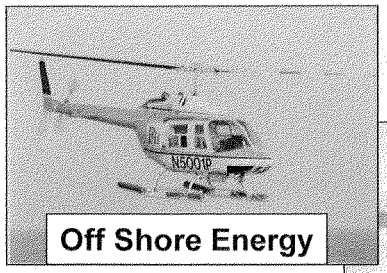
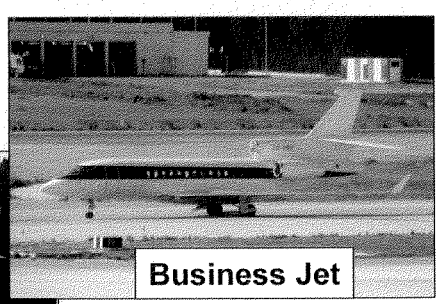
Part 135 Operations









MAZIE K. HIRONO
2ND DISTRICT, HAWAII

1524 LONGWORTH HOUSE OFFICE BUILDING
WASHINGTON, DC 20515
PHONE: (202) 225-4906
FAX: (202) 225-4987

HONOLULU
300 PRINCE KUHIO FEDERAL BUILDING
HONOLULU, HI 96850
PHONE: (808) 541-1986
FAX: (808) 538-0233

NEIGHBOR ISLAND TOLL FREE NUMBERS
BIG ISLAND (808) 935-3756
KAUAI/NIIHAU (808) 245-1951
MAUI (808) 242-1818
LANAI (808) 565-7199
MOLOKAI (808) 552-0169
Website: www.house.gov.Hirono

Congress of the United States
House of Representatives
Washington, DC 20515

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HOUSE DEMOCRACY ASSISTANCE COMMISSION

WHIP AT LARGE

Ms. Margaret Gilligan
Associate Administrator for Aviation Safety
Federal Aviation Administration
Room 1000 West
800 Independence Avenue, SW
Washington, DC 20591

May 5, 2010

Dear Ms. Gilligan:

I am following up on a question that I did not have an opportunity to ask at the Aviation Subcommittee hearing on the FAA's Oversight of On-Demand Aircraft Operators, at which you testified on Wednesday, March 17, 2010.

The State of Hawaii is comprised entirely of islands. On smaller, less populated islands that do not have dedicated air rescue service, on-demand flights are sometimes required in emergency or rescue situations. Because these flights are infrequent and not regularly staffed, the chartered pilots may not be familiar with the unique and challenging island-specific conditions under which these flights occur. In situations where a pilot flies in from a different island to perform a rescue, the pilot may not be familiar with even the basic geography of the island on which the rescue is taking place. In addition, it is rare for the pilot and the rescue workers to have previously worked together. A pilot's lack of training in performing rescue missions under each island's unique conditions can endanger the intended rescuees and the rescue workers themselves.

I am interested in learning about ways to enhance and ensure the safety of our pilots, intended rescuees, and rescue workers. Does the Federal Aviation Administration require specific pilot training or certification for on-demand rescue missions? Particularly in dangerous situations, are specific requirements imposed or should such requirements be imposed on the companies that charter out these flights?

PRINTED ON RECYCLED PAPER

Thank you for your attention to this matter. If you have any questions or require any further information, please contact my staff, Robin Scott, at 202-225-4906.

Sincerely,

Mazie K. Hirono
Member of Congress

FAA Response to Question for the Record from Rep. Hirono

Nearly all Search and Rescue (SAR) operations throughout the country are conducted in accordance with a standardized Incident Command System (ICS), adopted by the Federal Emergency Management Administration and state emergency management agencies. All emergency response participants must be vetted to provide their services in compliance with the ICS standard and in conformance with the procedures adopted by the agency having jurisdiction over the incident. Incident Commanders do not accept the services of an unknown operator who has not been previously approved as ICS qualified or as a provider of SAR services to that agency.

Nationally, commercial helicopter operators engaged in occasional rescue operations for compensation must not only be vetted to operate within the ICS framework, but must also possess an operating certificate issued in accordance with title 14 of the Code of Federal Regulations, parts 119 and 135. These operators must have training and checking procedures appropriate to the type of operations performed and for the geographic area and terrain over which they intend to operate. Furthermore, helicopter operators who lift personnel using external load collars, slings, baskets, etc. must also be trained, qualified, and authorized to perform this work in accordance with 14 C.F.R. part 133, which applies to external load operators. The FAA initially certifies and then conducts ongoing surveillance of these operators.

SAR missions conducted using a government-owned helicopter (or helicopter leased under a long term, exclusive use contract with a government agency) are defined by statute as public aircraft operations. As such, the FAA does not have the authority to conduct oversight of those operations.

Specific to your concerns regarding Hawaii and SAR missions, local Incident Commanders have responsibility for directing the operation of SAR missions that qualify as public aircraft operations and have the liberty to set appropriate standards in the contractual arrangement for any other needed services.

The Hawaii State Civil Defense may be able to provide additional information about training and qualification requirements for Hawaii SAR operations.

Before the Committee on Transportation and Infrastructure
Subcommittee on Aviation
United States House of Representatives

For Release on Delivery
Expected at
2:00 p.m. EDT
Wednesday
March 17, 2010
CC-2010-035

The Federal Aviation Administration's Oversight of On-Demand Aircraft Operators

Statement of
The Honorable Calvin L. Scovel III
Inspector General
U.S. Department of Transportation

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

We appreciate the opportunity to testify today on the Federal Aviation Administration's (FAA) regulatory framework and oversight challenges for on-demand aircraft operators. On-demand operators are a vital part of the air transportation system and our economy. In addition to conducting passenger flights and cargo operations, on-demand operators provide critical services, such as emergency medical transport and access to small remote communities. Over the last 10 years, however, on-demand operators have been involved in 155 fatal accidents, compared to 18 involving large commercial air carriers.

At the request of this Subcommittee, we completed a review and issued a report last July which discussed differences in regulations and oversight for on-demand operators versus large, commercial carriers.[1] The mid-air collision between an air tour helicopter and a private aircraft over the Hudson River last August highlighted the inherent risks in on-demand operations and underscores the need for continued efforts to enhance oversight of this industry. We are currently completing a second review on specific challenges in FAA's oversight of this industry and plan to issue our report later this spring.

My testimony today is based on this body of work. I would like to discuss three areas in which we have focused our efforts: (1) the inherent risks surrounding on-demand operators, (2) the need for an updated and effective regulatory framework given these risks, and (3) challenges facing FAA in moving from compliance-based oversight to a risk-based approach.

IN SUMMARY

On-demand operators typically fly in an environment that poses a number of safety risks. Specifically, they tend to have short flights, resulting in more takeoffs and landings, the most dangerous part of a flight. They also operate at altitudes that are vulnerable to terrain and weather obstacles and fly to and from small airports that do not have air traffic control towers or emergency equipment. Despite these inherent risks, FAA's current oversight of this industry is based on compliance with regulations that are less rigorous than those for commercial carriers and, moreover, have not been significantly updated in over 3 decades. Our work has shown that targeted, risk-based oversight from FAA could help mitigate many of the risk factors we identified. However, to shift to a risk-based oversight model, FAA will need to overcome several challenges, including ensuring it has enough inspectors with the right skills and sufficient data to oversee this diverse industry.

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[1] OIG Report Number AV-2009-066, "Report on On-Demand Operators: Less Stringent Safety Requirements and Oversight than Large Commercial Air Carriers," July 13, 2009. OIG reports are available on our website: www.oig.dot.gov.

BACKGROUND

FAA has three tiers of aviation oversight conducted under three primary regulations: (1) private owner operations regulated under Part 91;[2] (2) small, commercial operators flying primarily on-demand service regulated under Part 135;[3] and (3) large, commercial air carriers regulated under Part 121.[4] These three industry segments have unique operating environments and serve very different markets.

On-demand operators fly at the request of their customers and operate aircraft that are configured for 30 or fewer passengers or 7,500 pounds of payload or less. The operators comprising the on-demand industry segment can range from a company with 1 pilot and 1 aircraft to a company with over 600 aircraft. Operations include short flights to small regional airports, cross-country domestic flights, or international flights. Currently, there are more than 2,300 on-demand operators certificated by FAA across the country, compared to less than 100 large, commercial carriers. On-demand operators serve about 5,000 public airports compared to about 500 primary and commercial airports served by large carriers.

FAA has made progress toward improving aspects of its safety oversight, but our work continues to identify concerns with how this oversight is performed, particularly within the on-demand industry. Many of our concerns have also been identified by the National Transportation Safety Board (NTSB) as safety issues stemming from its investigations of on-demand accidents. There are currently 39 open NTSB recommendations related to on-demand operators.

ON-DEMAND OPERATORS FACE A NUMBER OF INHERENT RISKS

On-demand operators and large, commercial air carriers serve divergent markets with very different equipment and operating environments. Both industry and FAA agree that on-demand flights operate with more risk factors, which contributes to their higher accident rate. Specific risk factors include the following:

- **Diverse Aircraft Types:** On-demand operators fly many—and often older—aircraft types and models, adding to the complexity of maintenance, operations, and FAA inspections. Aircraft range from two-seat piston engine aircraft, helicopters, single-engine airplanes, turbine-powered airplanes, float planes, and jets with 10 or more seats. The 22 operators we reviewed had 321 registered aircraft comprised of 65 different makes/models, from small Cessnas to Gulfstream jets and Sikorsky helicopters.

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[2] 14 CFR § 91, General Operating and Flight Rules.

[3] 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.

[4] 14 CFR § 121, Operating Requirements: Domestic, Flag, and Supplemental Operations.

- **Technology Limitations:** Many of the smaller on-demand operators still have very basic equipment in their cockpits, compared to commercial air carriers that primarily operate jet aircraft equipped with ground proximity warning and Traffic Collision Avoidance Systems (TCAS). TCAS allows pilots to "see" aircraft traffic in their vicinity but is not required for on-demand aircraft with nine or fewer seats. Yet, operators with that type of aircraft make up 85 percent of the on-demand industry. Since TCAS can cost at least $15,000 per aircraft to install, there is little motivation for small operators to pursue this technology. Other technologies not required for these operators include safety tools, such as in-flight weather radar and cockpit voice/data recorders.

- **High-Risk Corridors:** Many on-demand aircraft fly at lower altitudes in less regulated airspace than commercial carriers. This can create busy, high-risk corridors, in which several types of aircraft converge and fly at lower altitudes, making them more vulnerable to terrain and weather obstacles.

- **Crew:** Due to the various destinations that on-demand operators service, their pilots are often unfamiliar with the flight route. Further, cabin attendants on smaller on-demand aircraft are not required to have safety or emergency training.

- **Communications:** On-demand operators often fly to and from small airports without air traffic control towers, so pilots do not have the benefit of a controller's guidance, which can assist flights during periods of low visibility or adverse weather. For example, on-demand operators in southern Florida frequently fly tourists to the Bahamas, where only 4 of the approximately 30 airports have air traffic control towers.

All of these risk factors are inherent in on-demand operations as they include more frequent flights and therefore more takeoffs and landings. As shown by NTSB statistics, higher risks have translated into more fatal accidents for on-demand operators versus commercial carriers. Between 2000 and 2008, the fatal accident rate for on-demand operators was nearly 50 times higher than that of commercial carriers.[5] The most fatalities for the period 2003 through 2008 occurred in the states of Alaska and Hawaii and in the Gulf of Mexico. In both Alaska and Hawaii, on-demand air tours are common, and small planes are a major source of transportation for people and cargo. In the Gulf of Mexico, there are numerous helicopter operations delivering crews and supplies to oil rigs.

[5] On-demand accident rates are estimated because FAA does not require operators to report annual operational data. The NTSB accident rate is calculated using accidents per 100,000 flight hours. The flight hours for on-demand are projected from a voluntary annual general aviation survey (the General Aviation and Air Taxi Activity Survey, or GAATA).

CURRENT REGULATIONS FOR ON-DEMAND OPERATORS HAVE NOT KEPT PACE WITH INDUSTRY CHANGES

The on-demand industry has changed significantly over the past 30 years. Today, on-demand operators commonly use jet aircraft and fly more complex operations and international flights. Despite these changes, FAA has not revised many Part 135 provisions since 1978. These regulations are also less rigorous than those for large, commercial carriers in key areas, such as flight crew requirements and maintenance inspections for aircraft (see table 1). Yet, FAA has not implemented recommendations made by its own Part 135 Aviation Rulemaking Committee or the NTSB to strengthen Part 135 regulations.

Table 1. Regulatory Differences Between Parts 135 and 121

Subject	Part 135	Part 121
Pilot Duty/Rest		
Maximum Yearly Flight Hours	1,400	1,000
Maximum Flight Hours in 24-Hr. period	10 hours	8 hours
Personnel Requirements		
Minimum Pilot-in-Command Experience/Hours	500 hours and commercial license	1,500 hours and Air Transport license
Crew Resource Management Training	Not Required	Required
FAA-Licensed Dispatcher	Not Required	Required
Maintenance		
Aging Airplane, Operator Supplemental Inspections	Not Required for all operators	Required
Aging Airplane, FAA Inspection and Records Review	Not Required for all operators	Required
Maintenance program that includes required inspection items and continuous analysis and surveillance system	Not Required for all operators	Required

Note: Depending on the size and type of aircraft used, FAA regulations for on-demand operations can be more or less restrictive. This table contains the least restrictive regulations for on-demand aircraft for each subject.

Less Stringent Requirements for Crew Training

On-demand operators are not required to follow some of the more stringent crew regulations that large, commercial carriers must operate under. First, most on-demand carriers are not required to provide their pilots with Crew Resource Management (CRM) training, which focuses on leadership and decision making skills in the cockpit and is one of the NTSB's top six recommended safety improvements for on-demand operators. The NTSB determined that crew errors were the primary cause of three on-demand accidents between 2001 and 2004 and concluded that an effective CRM program might have prevented them. FAA issued a Notice of Proposed

Rulemaking for Part 135 CRM training in May 2009 and is currently reviewing industry comments. We plan to monitor the progress of the rule for this critical training.

Second, on-demand operators are not required to provide safety training for cabin attendants if the aircraft carries 19 or fewer passengers.[6] The February 2005 accident in Teterboro, New Jersey, demonstrates the need for this type of crew training. The passenger jet crashed on takeoff, destroying the aircraft and resulting in serious injuries. The NTSB's investigation of the incident found significant safety breaches. Specifically, passengers did not receive a safety briefing prior to takeoff, some passengers were not wearing seatbelts when the takeoff roll began, and the cabin aide was unable to open the main cabin door to evacuate passengers. The NTSB concluded that training was inadequate to prepare the cabin aide to perform her assigned duties.

Finally, on-demand operators are not subject to certain requirements for non-flight crew support. For example, unlike commercial carriers, on-demand operators are not required to have FAA-licensed dispatchers to monitor flight progress and provide the pilot with safety information, such as weather and airport conditions, before and during flight. Instead, on-demand operators need only establish procedures for locating and following each flight so they can quickly notify FAA or conduct search-and-rescue if an aircraft is overdue or missing.

Maintenance Requirements Are Lacking, Despite On-Demand Operators' Aging Fleet

About 60 percent of the on-demand passenger and cargo fleet is over 20 years old,[7] compared to the average age of 10 years for aircraft flown by large, commercial carriers.[8] Despite this difference, maintenance requirements for on-demand operators are less stringent. While FAA requires aging aircraft inspections for Part 121 and Part 135 commuter aircraft that have been in service for 14 years or longer, no similar requirements are in place for the majority of on-demand operators.

Many of the maintenance regulations for on-demand aircraft seating 10 or more passengers are similar to those for large, commercial aircraft. For example, carriers using those types of aircraft must have a Continuing Analysis and Surveillance System (CASS) and a Required Inspection Items (RII) process. CASS is an internal evaluation system that regularly reviews the performance and effectiveness of an air carrier's maintenance and inspection program and corrects any identified deficiencies.

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[6] This is also true for the small number of Part 121 aircraft that seat 19 or fewer passengers.

[7] Section 735 of the Wendell H. Ford Aviation Investment and Reform Act for the 21st Century, Pub. L. No. 106-181 (2000) (codified at 49 U.S.C. § 40101). Section 735 of the Act mandated a study of the operations of the air taxi industry. FAA issued this report, "Part 135 Air Taxi Operators (ATO) Study," to Congress. The report is undated, but according to secondary sources it was issued in December 2004.

[8] OIG calculated using 2007 air fleet age data from www.airsafe.com.

RIIs are mandatory maintenance activities that, due to their importance to the overall airworthiness of the aircraft, must be independently inspected by a specially trained inspector after the work is complete. Although these are critical elements of an air carrier's maintenance program, they are not required for on-demand aircraft seating nine or fewer passengers, which make up a larger percentage of the industry and are involved in more fatal accidents.

FAA's Voluntary Safety Efforts for Emergency Helicopter Operators Have Not Been Effective

Certain segments of the on-demand industry have greater risks and therefore warrant risk-based oversight. This is particularly the case with Helicopter Emergency Medical Services (HEMS) operations, which are frequently conducted in high-risk environments, such as poor weather, low visibility, and high stress. Many HEMS flights pick up patients at accident scenes and land at hospital helipads without the benefit of air traffic control.

High fatalities and the high-risk HEMS environment led FAA to establish a HEMS safety initiative in 2005. Rather than regulatory requirements, this initiative focused on recommendations for voluntary operator actions, which have been insufficient to ensure safe operations and decrease fatal accidents. Fatal HEMS accidents increased considerably in 2008, with a total of 8 crashes that resulted in 29 fatalities. In January 2009, the NTSB issued a report calling on FAA to impose stricter requirements on all HEMS flights and held a public hearing the following month. FAA now has a HEMS rulemaking effort underway, but to date has not issued a proposed rule.

FAA Regulations Do Not Provide One Level of Safety for Air Tour Passengers

Air tours are inherently high-risk, as they are usually conducted at low altitudes in areas where other aircraft are operating and with pilots conversing with passengers. Despite these risks, Part 135 regulations include an exception that allows some air tour operators to fly for hire under Part 91 regulations for general aviation.[9] This means they may receive less oversight since air tours operating under Part 91 regulations do not have an annual FAA surveillance plan. Between January 2003 and July 2009, there were 86 air tour accidents operating under this exception, 12 of which resulted in 23 fatalities. For example, in 2004, an air tour operating under Part 91 regulations crashed in Hawaii, killing the pilot and four passengers. The NTSB cited the lack of FAA surveillance as a contributing factor in the fatal accident. Prior to the accident, the air tour operator had never received an FAA operations inspection.

[9] The Part 135 exception allows air tours to fly under Part 91 rules if they operate within a 25-mile radius of their takeoff point and do not make any interim landings.

In 1995, the NTSB recommended that FAA develop and implement national standards to bring all air tour flights under Part 135 requirements. FAA issued a Notice of Proposed Rulemaking for air tours in October 2003 that would have limited Part 91 air tours to charitable and nonprofit events. However, FAA received thousands of comments, some of which argued that complying with Part 135 regulations would drive many small operators out of business. As a result, FAA substantially revised the rule's provisions before releasing it in February 2007. While the new rule requires air tours operating under Part 91 regulations to obtain an FAA letter of authorization, we are concerned that the new rule does not address all identified safety issues. For example, the rule still would not require many of the standards in place for Part 135 operators, including pilot training programs, more stringent maintenance policies, flight time limitations, crew rest restrictions, and an FAA surveillance program.

FAA Has Not Addressed Recommendations To Strengthen Part 135 Regulations

In response to new technologies, new aircraft types, and changes in on-demand operating environments, FAA formed an Aviation Rulemaking Committee, or ARC, in 2003 to review Part 135 regulations. In September 2005, the ARC submitted 124 recommendations to FAA covering issues such as crew rest, flight in icing conditions, cockpit voice recorders, and collection of operational data. To date, however, FAA has not issued final rulemakings to address any of the ARC's recommendations. In addition, there are currently 39 open NTSB recommendations from on-demand accident investigations—some of which were issued as early as 2003. Table 2 shows the ARC and similar NTSB recommendations to improve on-demand safety in several key safety areas.

Table 2. Examples of Open On-Demand ARC and NTSB Recommendations

ARC Recommendation and Proposal to FAA, September 2005	Similar NTSB Recommendation? (based On-Demand Accident Investigation)	FAA Action
Flight Duty and Rest		
Amend the flight, duty, and rest limitations to be more applicable to air carriers operating under regulations for on-demand operators.	**Yes** - NTSB Most Wanted (all commercial operations)	**No NPRM to date**
Icing Conditions		
Regulations for pilot training to include ice detection in order to reduce dangers applicable to on-demand aircraft.	**Yes** (all commercial operations)	**No NPRM to date**
Crew Resource Management (CRM)		
Require dual-pilot on-demand operations to establish an FAA-approved CRM training program.	**Yes** - NTSB Most Wanted	**NPRM issued May 1, 2009**
Cabin Safety		
Create two categories of crewmembers that are assigned cabin duties: Cabin Safety Crewmember and Passenger Service Specialist.	**Yes**	**Voluntary guidance issued. No NPRM to date**

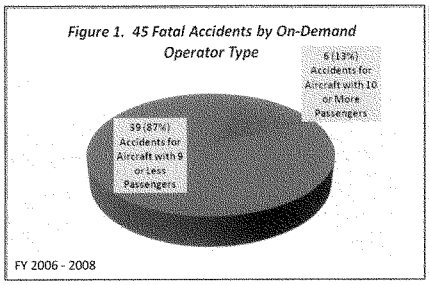
FAA'S OVERSIGHT OF ON-DEMAND OPERATORS IS NOT DRIVEN BY RISK BASED ASSESSMENTS

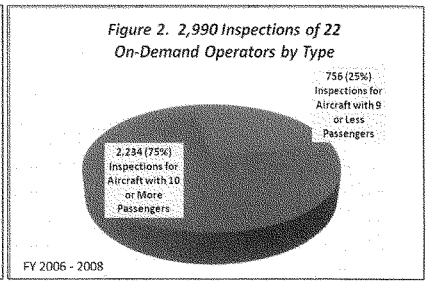
Despite the significant risks inherent to on-demand operators, FAA lacks an oversight approach that targets areas posing the greatest risk. Instead, FAA's inspector work programs are based on pre-determined inspections designed at the national level.[10] As a result, on-demand operators and activities with the most risk receive fewer FAA inspections. Inspectors are also challenged by a heavy and complex workload, training and turnover issues, and inadequate data regarding on-demand operations.

[10] Inspectors must complete all pre-determined inspections (R-items) assigned by the NPG and may add other inspections to their work plan (planned or P-items) for operators that they feel need additional oversight.

FAA Inspections Do Not Focus on Higher Risk On-Demand Operators and Activities

On-demand operators with aircraft carrying nine or fewer passengers pose the highest risk in the industry and represent more than 85 percent of total on-demand operators. However, FAA's National Program Guidelines (NPG) for assigning inspections tend to target on-demand operators with aircraft carrying 10 or more passengers. Consequently, FAA conducts far fewer inspections of the highest risk on-demand operators (see figures 1 and 2).

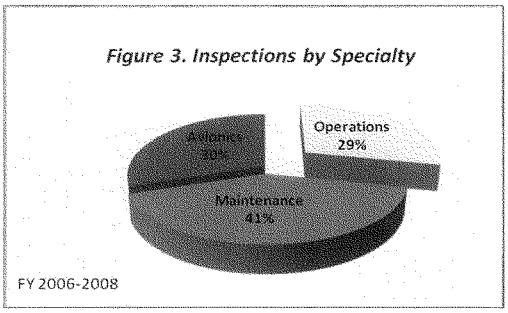




While FAA provides tools for prioritizing inspections, they are generally not being used. For example, FAA's Surveillance Priority Index (SPI)[11] uses factors such as fleet size, accidents and incidents, management turnover, and violations to quantify on-demand operators' risk status. Yet, only 6 of the 43 inspectors we interviewed used SPI risk scores. Many inspectors we interviewed also do not use FAA's Safety Performance Analysis System (SPAS) for safety or risk assessments—primarily because they believe SPAS is not useful in analyzing risks for their on-demand operators. Instead, they determine what needs to be inspected based on general perceptions or their experience with operators.

FAA also does not target its inspections to higher risk activities. Of key concern is the lack of operations inspections. Nearly 70 percent of fatal on-demand accidents are caused by pilot error, but less than 30 percent of all inspections we reviewed were of operations activities that would directly affect this risk, such as pilot training programs, crew and dispatch records, or trip records. As shown in figure 3, on-demand operators received more maintenance and avionics inspections than operations inspections. This is because FAA's NPG requires more of these types of inspections for on-demand operators with larger aircraft, even though maintenance and equipment problems have not been the primary cause of fatal on-demand accidents.

[11] The SPI is currently in draft and inspectors are not required to use it.



FAA plans to implement a risk-based System Approach for Safety Oversight for on-demand operators in 2013. However, because of the higher fatality rate associated with on-demand operations, FAA needs to implement an interim process that considers the inherent operational risk factors in on-demand operations.

Inspector Workforce Issues Impact On-Demand Oversight

While establishing a risk-based oversight approach is important, it will only be viable if FAA has enough qualified inspectors to implement it. To do so, FAA must address a number of challenges within the inspector workforce. For example:

- **Large, complex workload:** While FAA principal inspectors for large, commercial carriers are usually responsible for only one carrier, on-demand inspectors often oversee multiple operators and other entities, such as repair stations, flight schools, training centers, FAA designees,[12] and public use organizations. One on-demand inspector we spoke with was responsible for 53 different entities. In addition to inspections, on-demand inspectors have certificate management responsibilities, such as reviewing new certificate applications, approving revisions to manuals and operations specifications, and adding or removing aircraft from certificates. On-demand inspectors also have collateral duties such as desk duty and hotline and accident investigation.
- **High inspector turnover:** High inspector turnover was a problem at three of the six locations we visited: South Florida; Van Nuys, California; and Anchorage, Alaska. For example, in the Alaska office, 40 percent of the staff at the time of our visit were hired within the last 2 years. According to FAA personnel, it takes at least 1 year to train a new inspector and even longer for them to gain familiarity with their operators.

[12] A designee is a representative of the FAA Administrator authorized to examine, test, and/or make inspections necessary to issue certificates for airmen, aircraft, and manufacturing processes. Both individuals and organizations can be granted designee status.

- **Gaps in training and experience:** The large number of on-demand operators, their geographic dispersion, and operations with multiple models of aircraft makes it difficult for inspectors to gain and maintain the necessary skill set needed to oversee this industry. For example, if an on-demand operator does not have a pilot qualified as a designee to conduct other pilots' competency checks on a specific type of aircraft, an FAA inspector with current experience in that aircraft must conduct the check. However, FAA inspectors may have difficulty maintaining current experience if their assigned operators use multiple types of aircraft. Operators cited numerous instances of waiting months for FAA to approve manuals or aircraft or perform competency evaluations of their pilots.

Data To Identify On-Demand Risk Factors Are Not Collected by FAA

FAA inspectors lack comprehensive and reliable data on the on-demand industry and operators because FAA relies on a voluntary survey (the General Aviation and Air Taxi Activity Survey or GAATA[13]) to collect industry data. In addition, FAA does not collect operator data related to the unique risk factors inherent in the on-demand operating environment.

While 63 percent of on-demand operators participated in the GAATA survey, this still leaves a large number of non-participants. Further, the survey does not collect critical metrics, such as the number of passengers and departures, or contain validated data on flight hours, which are necessary to project accident rates. The annual report on the survey is also not useful to inspectors since FAA does not analyze any of the data collected. Instead, FAA reports only a compilation of data tables. The NTSB cited problems with GAATA in both 2003 and 2005, and its recommendations led to FAA improvements, such as increasing the survey sample size to include all on-demand operators and sending the survey to operators rather than owners (who are usually financial institutions with no knowledge of operations).

However, FAA has not implemented other key NTSB recommendations, such as collecting more pertinent data on total flight hours and flight time by category (e.g., passenger or air medical purposes). This type of data is already required from large, commercial carriers and Part 135 scheduled (commuter) operators. The on-demand industry supports this concept, but there is a lack of consensus regarding how much and what type of data should be required given the large number of diverse operators. Moreover, the voluntary nature of the survey severely limits its usefulness. Required reporting is necessary because without reliable flight hour data, FAA cannot compare the safety records of on-demand operators in order to assess risk and prioritize inspections.

Finally, FAA inspectors do not collect data in the field on many of the operational factors that actually create the increased risks in on-demand operations. FAA

[13] This survey is also referred to as the General Aviation Part 135 Activity (GAP135A) Survey.

inspectors visit these operators at least annually and could collect the data for input into a more robust SPI. The risk factors in both SPI and the Surveillance and Evaluation Program[14] are adapted from Part 121 oversight. Therefore, neither tool incorporates factors unique to on-demand operations, such as whether destination or departure airports have air traffic control, the terrain and weather patterns of the operations, or the type of safety equipment on the aircraft (such as TCAS). Without this type of data, FAA cannot identify and prioritize highest risk on-demand operators and activities for oversight.

CONCLUSION

On-demand operators play a vital role in commercial aviation but require increased FAA scrutiny. Because the on-demand operating environment carries inherently higher risks, adjustments are needed in FAA's regulatory and oversight approach. While FAA is taking steps to enhance the safety and oversight of on-demand operators in response to our recent report, much work remains. We will continue to monitor FAA's progress as it strives to provide one level of safety for all commercial operators.

[14] The Surveillance and Evaluation Program (SEP) was added to the NPG in 2002 to incorporate risk assessment principles into oversight of commercial carriers not yet under the Air Transportation and Oversight System (ATOS). SEP is used by a small number of Flight Standards District Offices for on-demand oversight.

1635 Prince Street, Alexandria, Virginia 22314-2818 Telephone: (703) 683-4646 Fax: (703) 683-4745

HELICOPTER ASSOCIATION INTERNATIONAL

TESTIMONY ON

FAA's Oversight of On-Demand Aircraft Operations

COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE
SUBCOMMITTEE ON AVIATION
UNITED STATES HOUSE OF REPRESENTATIVES

Wednesday, March 17, 2010

Matthew Zuccaro
President

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HELICOPTER ASSOCIATION INTERNATIONAL

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HOUSE TRANSPORTATION AND INFRASTRUCTURE COMMITTEE
SUBCOMMITTEE ON AVIATION
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Chairman Costello, Ranking Member Petri and Members of the Subcommittee, on behalf of Helicopter Association International (HAI), I am pleased and honored to appear before you today to comment on the DOT IG Report regarding On-Demand Operators.

The IG limited their review and subsequent recommendations to the different FAA regulations covering Part 121 air carriers vs. on-demand Part 135 operators, and focused on how the FAA oversees these two segments. This methodology does not focus on the real issues.

It is important to note that the initial reason to focus on the issue of Part 121 scheduled airlines vs. Part 135 on-demand charters related to the perceived disparity of safety between the two. I do not believe this disparity was created by differences in FAA regulations and/or the allocation of FAA regulatory oversight resources. In order to get the true picture, one must examine the different mission profiles, operating environment and supporting infrastructure that exists between Part 121 Scheduled airline operations and Part 135 on-demand charter operations.

We must acknowledge that Part 121 scheduled airline operators conduct a single mission; transporting people and cargo from one sophisticated, certificated airport to another, under the watchful eye of an active air traffic control system, in a highly mature, technically developed instrument flight rule environment, at high, obstacle free altitudes, above most weather systems. Many of the noteworthy safety accomplishments achieved by the Part 121 Operators are the direct result of Federal support for improving their operating environment and equipment.

In stark contrast, the majority of the existing network of heliports and point-in-space instrument approaches currently in use by the helicopter industry were privately funded and developed by industry. Helicopter operators fly to various locations, sometimes outside the National Airspace System, under Visual Flight Rules, at the lower altitudes, over varying topography and terrain, in some instances landing where no one has been before, absent the normal infrastructure enjoyed by airplanes, without destination weather and limited Air Traffic Control communications.

In order for Part 135 helicopter operations to achieve similar Part 121 safety parity, the large disparities of operating environment, lack of available infrastructure, and the need to accomplish multifaceted helicopter missions must be addressed. It is essential to create similar operating environments in order to achieve the desired safety parity.

Some of the elements of the desired helicopter operating environment include the implementation of NextGen technologies such as ADS-B to provide services at the lower altitudes, outside the normal National Airspace System structure. Inclusive of real-time weather information, enhanced ATC communications and other technologically advanced affinity services that would be available. These include items such as ground proximity warning information, traffic collision avoidance, in-cockpit weather displays, owner / operator flight following capabilities and enhanced VFR.

For those missions that do not require Instrument Flight capability, such as aerial firefighting and commercial air tours, ADS-B will provide enhanced surveillance, weather reporting, and communications, thereby facilitating safety improvements to these, and other VFR segments of our industry. ADS-B will also improve and expand flight following services available to all operators.

Until this past January, when ADS-B surveillance, enhanced communications and weather capabilities were implemented in the Gulf of Mexico, ATC was not able to see nor communicate with the over 700 helicopters operating offshore. In the short time since implementation in January, the success of this system has become apparent in terms of enhanced safety and operational efficiency.

There needs to be a focus on developing a national network of heliports and a dedicated low level helicopter IFR route structure with associated point-in-space instrument approaches and related departures, in the same manner as the existing focus on developing and modernizing airports and the associated high altitude IFR system. To this end, we believe the funds currently being paid by the helicopter industry into the Airport Improvement Program via Federal excise and fuel taxes should be escrowed and dedicated for the development of the above noted helicopter infrastructure. Of note is the additional benefit this initiative will provide with regard to relieving congestion within the terminal airspace and airport environments by redirecting helicopter operations to off-airport locations.

Our long-term vision is an operating environment that would create the ability for helicopters to transition seamlessly between Visual Flight Rules and Instrument Flight Rules as necessary, as is currently the ability of Part 121 operators.

Towards this end we should note an FAA Grant Program in Dallas where an EMS operator is working with the FAA to develop a test case system with low level routes for travel between hospitals and to develop approaches to hospitals. A similar initiative is also underway in the New York City metro area in support of the many corporate and charter helicopter operators.

HAI and many of our operator, pilot and maintenance-provider members, along with manufacturers and suppliers were actively involved---and invested considerable time and effort in the three- year Part 135 ARC initiative to update those regulations. Many of the recommendations the aviation rulemaking committee put forward in 2005 have merit, and would indeed contribute to safety and should be fast-tracked towards implementation. Contrary to popular belief, we are not against additional rulemaking as it is sometimes appropriate and necessary. HAI is on record in support of rulemaking for Helicopter EMS operations. We believe it will enhance safety in this particular industry segment.

More regulations and more FAA field surveillance alone will not address the concerns being raised with regard to the perceived Part 121 / Part 135 disparity. In fact, the FAA has put in place recommendations given by the NTSB regarding various helicopter missions, and more helicopter inspection officers in the field are focused on risk assessment. Additionally, the FAA has undertaken a concerted effort to hire inspectors and management staff with specific helicopter operations experience, background and training, to further enhance FAA oversight capabilities of Part 135 helicopter operators.

Scheduled airlines are required to report their hours flown to the FAA, which is not the case with Part 135 on-demand operators. This disparity creates an inaccurate safety / accident comparison between Part 121 and Part 135 operators when utilizing the industry standard of accidents occurring per 100,000 flight hours flown. This is due to the fact that this analysis is currently predicated upon the estimated flight hours of Part 135 as determined by the FAA vs. the actual known flight hours flown by Part 121 airlines. It is generally agreed that the Part 135 helicopter hours flown are underestimated. We believe that if every aircraft owner were required to report their annual flight hours for each aircraft flown to the FAA, this factual data, rather than FAA estimates, would show an improved and more favorable safety history when predicated upon safety / accidents per 100,000 hours flown. Subsequently, this would also facilitate a more accurate comparison between Part 121 and Part 135 operations.

The IG Report would appear to indicate that the maintenance requirements for Part 135 on-demand are less strenuous than those for Part 121 airlines. This conclusion seems to be predicated on the belief that Part 121 airlines utilize such maintenance

programs as Continuous Airworthiness Inspections, Required Inspection Item and Phased Maintenance systems and Part 135 operators do not.

It is important to note that due to the nature of technology and dynamic components present within helicopter systems, helicopters in general are maintenance intensive to a much higher degree than airplanes. Accordingly, the majority of the Part 135 helicopter fleet is maintained in accordance with the manufacturers recommended maintenance practices and procedures, which include protocols similar to those utilized by Part 121 airlines, such as Continuous Airworthiness Inspections, Required Inspection Items, and fight time / calendar repair, overhaul or replacement requirements.

When it comes to who can operate your aircraft, perform certain missions, and what the requisite number of pilot flight hours should be, in most instances, each industry segment develops normally accepted industry practices and policies, well above the basic FAA pilot requirements. In the case of the Part 135 on demand helicopter operators, such influence comes from mandated requirements established by the insurance industry, customer requirements and operator policies. In determining minimum pilot qualifications, such criteria as complexity of the aircraft, the mission to be flown, and operating environment are taken into consideration by the parties noted above.

Another item noted within the IG report focused on the level of technology and equipment mandated for Part 121 airlines vs. Part 135 operators. Again this brings up the issue of differing missions and operating environments, which is what drives these requirements. It is logical to assume that Part 121 airlines would require more technology and equipment than Part 135 helicopter operators predicated on the size and complexity of the aircraft, the fact that they operate in an IFR system for all missions, conducting both domestic and international operations, within a well-developed, sophisticated environment. This is not the case for Part 135 helicopter operators who predominately conduct multifaceted VFR missions in a local area. The current regulations for Part 135 helicopter operators addresses equipment and technology predicated on mission and environment, as it should be.

When appropriate we support the recommendations of the National Transportation Safety Board. As one example, we support mandatory Crew Resource Management Training requirements that actually go further than those recommended by the NTSB. The NTSB recommended that CRM training be made mandatory for operations which require two pilots. We concurred with the FAA, in its NPRM last summer, which suggested that the mandate should be extended to single pilot operations as well.

We do not take issue with the IG Report as a means of improving the way the FAA allocates safety oversight resources. We certainly support additional FAA surveillance and oversight which is properly focused on operators who are not regulatory compliant and appear to be operating in an unsafe manner. We have and will continue to support the concept of flying to a higher standard by raising the bar and leveling the playing field to insure that everyone is using safe operating practices.

HAI has been the driving force behind the International Helicopter Safety Team, which began five years ago and is modeled after the successful Part 121 Commercial Aviation Safety Team, better known as the CAST Program, which led to a significant reduction in Part 121 airline accidents. IHST's goal is to apply this success story to the helicopter industry and reduce the helicopter accident rate by 80% within the next ten years.

Mr. Chairman and Members of the Subcommittee, I assure you safety is the number one priority of HAI and our members. We believe that HAI's excellent relationship with the FAA and NTSB has contributed to enhancing industry safety. It is our desire and intent to continue our work with these agencies towards an accident-free industry.

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