STATEMENT OF MARGARET GILLIGAN, ASSOCIATE ADMINISTRATOR FOR AVIATION SAFETY, FEDERAL AVIATION ADMINISTRATION, BEFORE THE SENATE COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION, SUBCOMMITTEE ON AVIATION OPERATIONS, SAFETY, AND SECURITY, ON AVIATION SAFETY: PILOT FATIGUE. DECEMBER 1, 2009.

Chairman Dorgan, Senator DeMint, Members of the Subcommittee:

Thank you for inviting me here today to discuss the Federal Aviation Administration's (FAA's) efforts to mitigate pilot fatigue. Administrator Babbitt, himself a former commercial airline pilot, has made this a high-priority issue for the agency. The FAA has always been a leader in advancing measures targeted at preventing or mitigating pilot fatigue through our sponsored research, dissemination of training and educational materials, and, most significantly, through our regulatory requirements. We believe that it is critical, whenever possible, to incorporate scientific information on fatigue and human sleep physiology into regulations on flight crew scheduling. Such scientific information can help to maintain the safety margin and promote optimum crew performance and alertness during flight operations. Our task is to translate that knowledge to the operational environmental in a sound and practical way. The complexity of our current pilot flight and rest regulations, with varying standards for a number of categories of aviation operations, developed through the years as the aviation industry grew, adopted more advanced technology, and employed diverse operational strategies.

Preventing and mitigating the effects of fatigue is a shared responsibility that brings shared benefits in terms of increased safety, better working conditions and greater

operational efficiencies. We at the FAA take our responsibility very seriously for investigating any threat to safety in the aviation system and establishing the regulatory framework to enhance the public's safety. To that end, we are engaged in an effort to revise and update our rules on pilot flight and rest, which I will describe in more detail below. At the same time, carriers have the responsibility to conduct their operations at the highest level of safety. That includes adopting appropriate scheduling practices that provide the pilot a clearly identified opportunity to rest. And, finally, pilots have the responsibility to take advantage of the opportunity for rest and report for their assignments well rested and ready for duty. We know that in the vast majority of cases, carriers and pilots act in a professional manner and take this shared responsibility seriously. We have a common goal to ensure that all aviation operations are conducted safely.

Current Regulations:

Current regulations place varying limits on the amount of time that a flight crewmember can fly (i.e. per day, week, month, quarter, and year), and require that a pilot be afforded a period of rest, free from obligation to the employer. Flight time limitations are based on the type of operation. For example, under current Part 121 rules, pilots in a two-pilot crew, on domestic flights, can generally fly up to eight hours per day. Their workday can extend up to 16 hours, including time on the ground between flights. In addition, there are no restrictions on flying during the middle of the night or making numerous takeoffs and landings. In addition to daily limitations, these flight crewmembers are limited to 30 flight hours in any 7 consecutive days.

Flight crewmembers engaged in part 121 flag operations (international passenger flights), are limited to 32 flight hours in any 7 days. Part 121 supplemental operations (typically cargo, on-demand or charter operations) have no 7 consecutive day limitations. Flight crewmembers serving in part 121 domestic or flag operations are limited to 100 hours per calendar month while flight crewmembers serving in supplemental operations are limited to 100 flight hours in any 30 consecutive days.

These differing regulations for different types of operations are inconsistent and complex, and can be easily misunderstood, especially when a pilot can be assigned to different types of operations. The different rules developed over time, as the aviation industry changed and expanded. While such variance in the rules may have been justified when they were first adopted, these differences may no longer be valid in today's operational environment. Our rulemaking will address this.

Current rules also require that a pilot be afforded an adequate rest period. The "crew rest" elements of the regulation are designed to mitigate cumulative and acute fatigue, primarily through limitations on flight hours and defined hours of rest relative to flight hours. For example, the regulation for domestic operations outlines:

- No more than 30 flight hours in any 7 consecutive days
- At least 24 hours of consecutive rest during any 7 consecutive days
- Varying rest requirements relative to hours flown in any 24 hour period

The rule also defines rest period activities and prohibitions, and provides provisions for circumstances under which flight time limitations can be exceeded, such as in adverse weather operations. As of late 2000, an FAA legal interpretation clarified that a pilot crew member, flying under domestic flight rules, must "look back" 24 hours and find eight hours of uninterrupted rest before beginning any flight segment.

Pilots also have a regulatory responsibility to not fly when they are not fit, including being fatigued. Thus, while the carrier schedules and manages pilots within these limitations and requirements, the pilot has the responsibility to rest during the periods provided by the regulations. The FAA has long held that it is the responsibility of both the operator and the flight crewmember to prevent fatigue, not only by following the regulations, but also by acting intelligently and conscientiously while serving the traveling public. This means taking into consideration weather conditions, air traffic, health of each flight crewmember, or any other circumstances (personal problems, etc.) that might affect the flight crewmember's alertness or judgment on a particular flight.

FAA Actions:

The FAA has initiated a number of fatigue mitigation efforts in recent years:

1995 Proposal for Pilots: In 1995, the FAA proposed a rule to change flight time and rest limits. The agency received more than 2,000 comments from the aviation community and the public. Most of those comments did not favor the rule as proposed, and there was no clear consensus on what the final rule should say. The FAA recently withdrew this

proposed rule because it will be superseded by the current rulemaking effort described below.

1998 ARAC: In July 1998, the FAA Administrator asked the Aviation Rulemaking Advisory Committee (ARAC) to work with the industry to reach a consensus and develop a new proposal. If no consensus could be reached, the FAA would continue to enforce the current regulations. In February 1999, ARAC reported that there was no consensus in the aviation community. The group offered five different proposals to update the flight and rest regulations.

1999 Federal Register Notice: In response to concerns raised by the pilot community, the FAA Administrator notified the aviation community on June 15, 1999 that it had six months to ensure that it was in full compliance with the agency's current flight time and rest requirements. Reviews of airline scheduling practices conducted in December 1999 and discussions with pilot unions and airlines confirmed that the vast majority of pilots were receiving the amount of rest required by the FAA's rule.

2000 FAA letter: On November 20, 2000, the FAA responded to a letter from the Allied Pilots Association that set forth specific scenarios that could affect a very small number of all commercial pilots. The FAA's response, known as the "Whitlow Letter," was consistent with the agency's long-standing interpretation of the current rules. In summary, the FAA reiterated that each flight crewmember must have a minimum of eight hours of rest in any 24-hour period that includes flight time. The scheduled flight time must be calculated using the actual conditions on the day of departure regardless of

whether the length of the flight is longer or shorter than the originally scheduled flight time.

2001 Federal Register Notice: The FAA published a notice in the *Federal Register* on May 17, 2001 to reiterate its long-standing interpretation of its pilot flight time and rest rules. The notice informed airlines and flight crewmembers of the FAA's intent to enforce its rules in accordance with the Whitlow letter interpretation. Each flight crewmember must have a minimum of eight hours of rest in any 24-hour period that includes flight time. That calculation must be based on the actual conditions on the day of departure regardless of whether the length of the flight is longer or shorter than the originally scheduled flight time. The FAA did not anticipate that the notice would result in major disruptions to airline schedules. It stated that, beginning in November 2001, the FAA would review airline flight scheduling practices and deal stringently with violations that came to light.

2001 ATA/RAA Request: The FAA denied requests made on June 12, 2001 on behalf of the Air Transport Association (ATA) and Regional Airline Association (RAA) to stay all agency action regarding the November 20, 2000 Whitlow letter of interpretation and the May 17, 2001 *Federal Register* notice of the FAA's enforcement policy regarding pilot flight time and rest. The FAA's letter and *Federal Register* notice were consistent with the agency's long-standing interpretation of the current rules. The documents were consistent with the statutory mandate to issue rules governing the maximum hours or periods of service, the use of plain language in regulations and the regulatory history of

the rules. ATA subsequently petitioned for review of the Whitlow letter and the enforcement policy.

On Sept. 5, 2001 the U.S. Court of Appeals for the District of Columbia granted a motion by the ATA to stay the May 17, 2001 *Federal Register* notice. On May 31, 2002, the court denied ATA's petition for review, ruling in favor of the FAA. As a result, the FAA has continued to enforce the current regulations consistent with the Whitlow letter.

2008 FAA Fatigue Symposium: In June 2008, the FAA sponsored the *Fatigue Symposium: Partnerships for Solutions* to encourage the aviation community to proactively address aviation fatigue management issues. Participants included the National Transportation Safety Board, the Institutes for Behavior Resources, Inc., and many of the world's leading authorities on sleep and human performance. The symposium provided attendees with the most current information on fatigue physiology, management, and mitigation alternatives; perspectives from aviation industry experts and scientists on fatigue management; and information on the latest fatigue mitigation initiatives and best practices.

Ultra Long-Range Flights: In 2006, the FAA worked with Delta Air Lines to develop and approve fatigue mitigation for flights between John F. Kennedy International Airport and Mumbai, India. The flights were operated for more than 16 hours with four pilots provided that the airline followed an FAA-approved plan to manage rest and mitigate the risk posed by fatigue. The mitigation, approved as an Operations Specification issued to Delta Air Lines, was specific for that city pair. Although that specific route is no longer flown by Delta, the FAA viewed Delta's fatigue mitigation strategy as a model program.

As a result of Delta's efforts, the FAA proposed in November 2008 to amend Delta, American, and Continental's Operations Specifications to incorporate fatigue mitigation plans for their ultra long-range flights. Based on comments received from the three air carriers, the FAA withdrew the proposed amendments on March 12, 2009. The FAA is currently working with airlines to gather data that will help the agency enhance the safety requirements for ultra long-range flights. The agency believes that it is in the best interest of passenger and crew safety for airlines to use an FAA-approved fatigue mitigation program to reduce the risk of pilot fatigue.

Rulemaking Underway:

In June 2009, the FAA chartered the Flight and Duty Time Limitations and Rest Requirements Aviation Rulemaking Committee (ARC) comprised of labor, industry, and FAA representatives to develop recommendations for an FAA rule based on current fatigue science and a thorough review of international approaches to the issue. The ARC was chartered to provide a forum for the U.S. aviation community to discuss current approaches to mitigate fatigue found in international standards and make recommendations on how the United States should modify its regulations. The ARC consisted of 18 members representing airline and labor associations. The members were selected based on their extensive certificate holder management and/or direct operational experience.

Specifically, the FAA asked the ARC to consider and address the following:

(1) A single approach to addressing fatigue that consolidates and replaces existing regulatory requirements for parts 121 and 135.

(2) Generally accepted principles of human physiology, performance, and alertness based on the body of fatigue science.

(3) Information on sources of aviation fatigue.

(4) Current approaches to address fatigue mitigation strategies in international standards.

(5) The incorporation of fatigue risk management systems (FRMS) into a rulemaking. An FRMS is a data-driven process and systematic method to monitor and manage safety risks associated with fatigue-related error.

The ARC met over a 6-week period beginning July 7, 2009. Early on, the FAA told the ARC members that it was very interested in the ARC's recommendations, but that the agency retained the authority and obligation to evaluate any proposals and independently determine how best to amend the existing regulations. The agency reiterated that participation on the ARC in no way precluded them from submitting comments critical of the NPRM when it was published. On September 10, 2009, the ARC delivered its final report to the FAA.

We cannot discuss further particulars of the FAA's rulemaking efforts at this time, however, we are working as quickly as possible to complete a draft Notice of Proposed Rulemaking (NPRM).I will readily acknowledge that this effort has been difficult, and has taken us longer than we wanted or expected. The events of the last 15 years evidence the complexity of the issue and the strong concerns of the parties involved, and those are clear in the current rulemaking as well. At the same time, our focused effort since June demonstrates the high priority that Administrator Babbitt and I, along with the rest of the FAA team, place on overcoming these challenges and updating these regulations to enhance safety. I am confident we will get there.

Chairman Dorgan, Senator DeMint, Members of the Subcommittee, this concludes my prepared remarks. I would be happy to answer any questions that you might have.