



# Taking Steps

BY LINDA WERFELMAN

Even as the FAA is trying to revise pilot rest requirements, a government report says industry opposition presents a challenge.

Considerable opposition within the aviation industry to proposed changes in pilot flight, duty and rest requirements will hinder efforts by the U.S. Federal Aviation Administration (FAA) to finalize the changes, according to a report by a U.S. Department of Transportation (DOT) oversight office.<sup>1</sup>

The FAA published a notice of proposed rulemaking (NPRM) in September 2010, calling for flight, duty and rest requirements to be updated in accordance with scientific research — actions that were characterized by the DOT Office of Inspector General (OIG) report as “important and much-needed steps.”

The FAA had planned to issue the final rule on flight, duty and rest requirements in August, but the action has been delayed until late November to allow more time for executive review, an FAA spokeswoman said.

The OIG report said the FAA faces a significant challenge in proceeding with the implementation of the regulations.

“It will be difficult for FAA to address this issue or finalize new rest rules given the significant opposition the NPRM faces from the aviation industry,” said the report, published in mid-September.

The proposed rule would require U.S. Federal Aviation Regulations Part 121 air carrier pilots to have at least nine hours of rest before reporting for duty; in most cases, the current requirement is for at least eight hours of rest. The proposed rule also would establish maximum allowable duty and flight times that would be determined according to the number of pilots in the crew, the start time, the number of flight segments and the existence of rest facilities in the aircraft; in most cases, allowable flight and duty times would be shorter than those permitted under current

regulations, but in some situations, the allowable times would be longer.

The airline industry — especially cargo and charter operators — have opposed the proposed changes, which the Air Transport Association says go “well beyond what current scientific research and operational data can support.” The association also estimates the cost of compliance at about \$20 billion over 10 years, compared with the FAA’s estimate of \$1.3 billion.

The OIG report noted that there had been similar opposition to the FAA’s previous proposals to revise flight and duty regulations and that the FAA had ended that effort — 15 years after it was begun — in November 2009, and then began developing the new NPRM that was published the following year.

The current regulations, last modified in 1985, are “outdated, difficult to interpret and not scientifically based,” the OIG report said,

Number of Pilot Commuters				
Airlines	Number of Pilots Interviewed	Current Commuters	Past Commuters	Percent of Current and Past Commuters
Airline 1	7	1	4	71%
Airline 2	5	0	1	20%
Airline 3	10	7	2	90%
Airline 4	5	2	1	60%
Airline 5	6	5	1	100%
<b>Total</b>	<b>33</b>	<b>15</b>	<b>9</b>	<b>73%</b>

Source: U.S. Department of Transportation, Office of Inspector General

Table 1

**Research determined that pilots might not be reporting all instances of fatigue.**

noting that, for example, they do not take into account the complications of multi-leg flights or of flights that cross multiple time zones.

The report noted that, after the fatal crash of a Colgan Air Bombardier Q400 in 2009,<sup>2</sup> the FAA identified pilot fatigue as a top priority for the industry and took several steps to address the problem, including issuance of advisory circulars that discussed best practices for dealing with fatigue and concepts of a fatigue risk management system, as well as publication of the 2010 NPRM.

Fatigue was a likely factor in the Colgan crash, according to the U.S. National Transportation Safety Board (NTSB) final report on the accident, although investigators were unable to determine precisely how fatigue might have contributed to the pilots' "performance deficiencies," the accident report said.

The OIG report said that the FAA and U.S. air carriers have systems designed to ensure compliance with existing FAA flight, duty and rest requirements. The six air carriers visited by OIG researchers during the course of their study used several different automated scheduling systems, all programmed to ensure compliance with FAA flight, duty and rest requirements, as well as with terms of the collective bargaining agreements negotiated with the pilots' labor unions.

Citing a previous report, the OIG noted that, on occasions when human error by an airline scheduling employee results in non-compliance, FAA inspectors "do not fully examine and analyze the self-disclosure data from the carriers." The collection and analysis of such data could help identify instances and trends associated with fatigue, the report said.

For this report, the OIG reviewed 214 automated pilot schedules and actual shifts during a one-month period at all six carriers represented in the study and found no violations of FAA flight, duty and rest regulations. In 31 instances, however, pilots exceeded their permitted flight time because of weather problems or other circumstances beyond the airline's control. The report also noted 25 instances in which pilot rest periods were less than nine hours but more than eight hours; in

each instance, the pilot received "compensatory rest," as required by regulations.

### Identifying Fatigue

In addition, the OIG report said that the office's research determined that pilots might not be reporting all instances of fatigue. The report noted that, of 33 air carrier pilots interviewed by OIG researchers, 26 pilots (79 percent) said that, at some time, they had been fatigued while on duty; nevertheless, only eight pilots notified their carriers of their condition. Among the reasons cited for not reporting fatigue was a fear of "punitive action from their employers," the report said.

The limited data may be hindering the FAA in its ability to identify any link between pilot commuting and pilot fatigue, the report said.

The OIG recommended that the FAA improve its collection and analysis of data related to pilot fatigue, calling for implementation of "an internal mechanism that encourages pilots and other flight crewmembers to voluntarily report instances of fatigue without facing disciplinary action." A second recommendation said that the FAA should require inspectors to "analyze voluntary disclosure data specifically for violations of flight, duty and rest requirements."

The FAA already has completed actions that "address the intent of these recommendations," the report said.

The FAA said that it published guidance in 2010 to aid airlines in developing fatigue risk management plans, and noted that one element of a fatigue risk management plan is the establishment of a just culture, including a policy that encourages crewmembers to "report fatigue occurrences without fear of retribution," the report said. The FAA said that it consistently reviews information gathered through two programs for voluntary disclosure of safety issues to identify the causes of the reported problems and to help develop corrective actions.

### Pilot Commuting Practices

The NPRM includes no provisions for dealing with the fatigue issues associated with pilots

who commute hundreds — or thousands — of miles to work, and the OIG report noted that neither the FAA nor individual airlines have addressed the issue. Instead, the FAA drafted an advisory circular emphasizing the dual role of operators and their pilots in ensuring that pilots are well rested when they begin work.

The commuting issue was raised after the Colgan crash, when NTSB accident investigators learned that both pilots lived hundreds of miles from their assigned work location and that both often slept in an airport crew lounge (*ASW*, 3/10, p. 20).

The NTSB accident report noted that Colgan “did not proactively address the pilot fatigue hazards associated with operations at an airport where pilots typically have to commute ... in order to begin their work shifts.”

At the time, the NTSB recommended that the FAA address fatigue issues involved in commuting. The FAA has not moved to require air carriers to identify commuting pilots or to address issues involving commuting and fatigue, the OIG report said.

The OIG report noted that commuting issues surfaced again when the U.S. Congress included in 2010 legislation a call for a study of air carriers’ commuting policies and their effects on pilot fatigue.

That study, released in July by the National Academy of Sciences, found that, although airline pilots’ commuting practices “could potentially contribute to their fatigue,” not enough data exist to determine the extent of the related safety risks.<sup>3</sup>

“Some commutes have the potential to contribute to fatigue in pilots, and fatigue can pose a safety risk, but at this point, we simply don’t know very much about actual pilots’ commuting

practices,” said Clint Oster, a professor in the Indiana University School of Public and Environmental Affairs and head of the panel that researched the issue. “Airlines and FAA should gather more information on pilots’ commutes and also work with pilots to lower the likelihood that fatigue from commuting will be a safety risk.”

The OIG report noted that the Air Line Pilots Association, International (ALPA) has estimated that 60 percent of its members commute to their jobs from other cities. Of 33 air carrier pilots interviewed by OIG researchers, 24 pilots (73 percent) said that they had commuted at some time in their careers (Table 1, p. 41).

Of four recommendations by the OIG to the FAA, two dealt with commuting pilots. The OIG said that the FAA should “ensure the collection and analysis of data regarding domicile and commuting length for all Part 121 flight crews.

“Specifically, information regarding the number of pilots and other flight crewmembers who commute, their methods of transportation and the distances they commute should be collected.”

After the data are collected, they should be analyzed to determine “if further changes to flight duty and domicile regulations are needed or if airlines need to take further mitigating actions in their fatigue management systems,” the OIG said.

In response, the FAA — noting that the National Academy of Sciences study had found no link between pilot commuting and aviation safety — said that it would “scan for available data on pilot commuting” rather than actively pursue data collection and analysis.

The OIG insisted, however, that FAA collection and analysis of

commuting data are needed because of the current scarcity of data, as well as “the potential for commuting to contribute to fatigue, clear scientific evidence that fatigue can decrease performance and recent fatal regional air carrier accidents in which pilot performance or fatigue was cited as a cause or contributing factor.”

The OIG’s subsequent response said that, although issuance of the NPRM and publication of the National Academy study were positive steps, a comprehensive review of domicile and commuting data would “better position the agency and airlines to determine whether additional mitigation or oversight measures are needed.”

The OIG asked the FAA to reconsider its position on both recommendations. ➔

## Notes

1. DOT OIG. Report No. AV-2011-176, “FAA and Industry Are Taking Action to Address Pilot Fatigue, but More Information on Pilot Commuting Is Needed.” Sept. 12, 2011.
2. NTSB. Accident Report NTSB/AAR-10/02, “Loss of Control on Approach; Colgan Air Inc., Operating as Continental Connection Flight 3407; Bombardier DHC-8-400, N200WQ; Clarence Center, New York, February 12, 2009.” All 49 people in the airplane and one person on the ground were killed when the airplane struck a house during approach to Buffalo Niagara (New York, U.S.) International Airport on Feb. 12, 2009. The airplane was destroyed. The NTSB said the probable cause was the captain’s “inappropriate response to the activation of the stick shaker, which led to an aerodynamic stall from which the airplane did not recover.”
3. National Academy of Sciences. “Steps Needed to Reduce Likelihood That Pilot Commuting Practices Could Pose Safety Risk, But Too Little Data Now to Support Regulation.” July 6, 2011.