Air controller study shows chronic fatigue

August 10 2015, byJoan Lowy

An airplane flies between the air traffic control tower and the Washington Monument at Washington's Ronald Reagan National Airport, Monday, Aug. 10, 2015. For more than three years, the government has kept secret a study it requested that found air traffic controllers' work schedules often lead to chronic fatigue, making them less alert and endangering the safety of the national air traffic system, according to report on the study obtained by The Associated Press. (AP Photo/Jacquelyn Martin)

Air traffic controllers' work schedules often lead to chronic fatigue, making them less alert and endangering the safety of the national air

traffic system, according to a study the government has kept secret for nearly four years.

Federal Aviation Administration officials have declined to furnish a copy of the report despite repeated requests and a Freedom of Information Act request by The Associated Press. However, the AP was able to obtain a draft of the final report dated Dec. 1, 2011.

The impetus for the study was a recommendation by the National Transportation Safety Board to the FAA and the National Air Traffic Controllers Association to revise controller schedules to provide rest periods that are long enough "to obtain sufficient restorative sleep."

The study found that nearly 2 in 10 controllers had committed significant errors in the previous year—such as bringing planes too close together—and over half attributed the errors to fatigue. A third of controllers said they perceived fatigue to be a "high" or "extreme" safety risk. Greater than 6 in 10 controllers indicated that in the previous year they had fallen asleep or experienced a lapse of attention while driving to or from midnight shifts, which typically begin about 10 p.m. and end around 6 a.m.

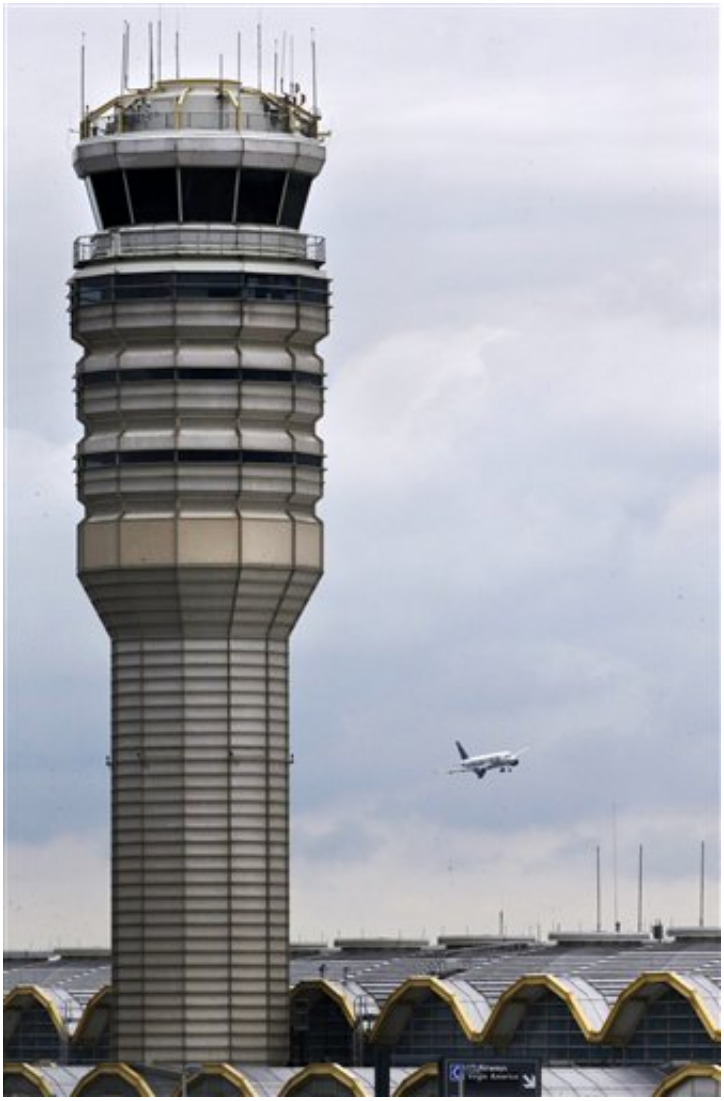
Overall, controllers whose activity was closely monitored by scientists averaged 5.8 hours of sleep per day over the course of a work week. They averaged only 3.1 hours before midnight shifts and 5.4 hours before early morning shifts.

The most tiring schedules required controllers to work five straight midnight shifts, or to work six days a week several weeks in a row, often with at least one midnight shift per week. The human body's circadian rhythms make sleeping during daylight hours before a midnight shift especially difficult.

The study is composed of a survey of 3,268 controllers about their work schedules and sleep habits, and a field study that monitored the sleep and the mental alertness of more than 200 controllers at 30 air traffic facilities.

NASA produced the study at the FAA's request.

J.D. Harrington, a NASA spokesman, also declined to release the study, saying in an email that since the FAA requested it, "they own the rights to decide its release." NASA gave the scientists who conducted the study an award for the project's excellence in 2013.



An airplane flies past the air traffic control tower at Washington's Ronald Reagan National Airport, Monday, Aug. 10, 2015. For more than three years, the government has kept secret a study it requested that found air traffic controllers' work schedules often lead to chronic fatigue, making them less alert and endangering the safety of the national air traffic system, according to report on the study obtained by The Associated Press. (AP Photo/Jacquelyn Martin)

In the field study, researchers concentrated on controllers who worked a schedule known as the "rattler" in which controllers squeeze five eight-hour shifts into four 24-hour periods by cutting the turnaround time

between shifts to as little as eight hours. Some controllers like the schedule because it gives them a 3-day weekend.

Controllers participating in the study wore a wrist device that recorded when they were asleep. They also kept logs of their sleep, and were administered alertness tests several times per work shift.

Schedules worked by 76 percent of controllers in the field study led to chronic fatigue, creating pressure to fall asleep. "Even with 8 to 10 hours of recovery sleep, alertness may not recover to the full rested baseline level, but may be reset at a lower level of function," the report said.

"Chronic fatigue may be considered to pose a significant risk to controller alertness, and hence to the safety of the ATC (air traffic control) system," the study concluded, especially when combined with little stimulation during periods of low air traffic and the human body's natural pressure to sleep during certain times of the day.

The 270-page study makes 17 recommendations to the FAA, including that the agency discontinue mandatory six-day schedules "as soon as possible." At the time, about 4 percent of controllers were being assigned "a six-day constant schedule," the study said, but the share of controllers who had actually worked a six-day schedule in their previous work week was 15 percent.

More than 30 percent of controllers who worked the six-day schedules said they had committed a significant error in the previous year. Three years later, controllers at several air traffic facilities told the AP that six-day work weeks are still common.

FAA officials didn't reply to questions from the AP about steps the agency has taken to reduce controller fatigue and the prevalence of six-day work weeks.

FAA officials also refused to share the report with researchers from the National Academies, which advises Congress on science issues.

The study was completed several months after a series of incidents involving controllers falling asleep on the job embarrassed FAA officials and led to the resignation of the head of the agency's air traffic organization. In one incident in 2011, two airliners landed at Washington's Reagan National Airport late at night without assistance from the airport's control tower where the lone controller on duty had fallen asleep.

After the incidents, the FAA and the controllers' union announced several changes to address fatigue, including requirements that there be at least two controllers on duty after midnight and that controllers be provided at least nine hours between shifts to rest.

But the transportation safety board told the FAA in 2013: "We are concerned that, given the realities of the time required for an employee to commute home and back to work, and to attend to personal and family needs, a nine-hour break may not allow enough time for an employee to obtain eight continuous hours of sleep."

The board's recommendations were prompted by a 2006 accident in which a regional airliner crashed while taking off from a runway that was too short in Lexington, Kentucky. Forty-nine of the 50 people on board were killed. The air traffic controller who cleared the plane for takeoff didn't notice it turn onto the wrong runway. The controller had worked all night and had had only two hours sleep in the previous 24 hours.

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