istory seems to be trying to repeat itself on the current effort by the U.S. Federal Aviation Administration (FAA) to overhaul its hodgepodge of flight crew duty, flight and rest requirements. Changes proposed 15 years ago were blasted by the airlines as costly and lacking the support of data. That rule-making effort languished until the FAA scrapped it in 2009 and established another committee to formulate recommendations.

Again, the labor and industry representatives on the committee reached no consensus on several key items, and the FAA had to choose among various recommendations. Again, the resulting proposal drew more than 2,000 public comments that included barbs from the airlines.

Comments by several airlines echoed those of the Air Transport Association of America (ATA) — the largest airline trade group in the United States — which summarized its 270-page response by saying that the proposal should be withdrawn because it goes "well beyond what current scientific research and operational data can support." Moreover, the ATA said that the FAA's estimated cost of \$1.3 billion for compliance with the new rules over 10 years "is off by a magnitude of 15."

The appearance of déjà vu in the current rule-making effort, however, must be viewed in

the light of an important new factor: pressure by the U.S. Congress, which in August 2010 passed legislation directing the FAA to have new regulations in place within one year.

'No Time to Decompress'

In a notice of proposed rule making (NPRM) published in September 2010, the FAA said that the current regulations do not adequately address the risk of fatigue. "Presently, flight crewmembers are effectively allowed to work up to 16 hours a day, with all of that time spent on tasks directly related to aircraft operations," the agency said. "The regulatory requirement for nine hours of rest is regularly reduced, with flight crewmembers spending rest time traveling to or from hotels and being provided with little to no time to decompress."

The crux of the proposal is to establish a unified set of duty, flight and rest requirements for airline pilots in a new body of U.S. Federal Aviation Regulations called Part 117.

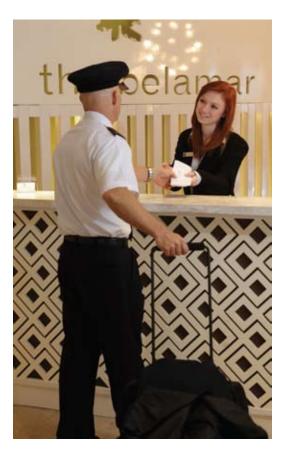
The FAA said it believes that the proposed requirements "sufficiently accommodate the vast majority of operations conducted today, while reducing the risk of pilot error from fatigue leading to accidents." It noted that some current requirements would be relaxed, while others would be strengthened "to reflect the





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PROPOSAL,



latest scientific information" (Table 1).

Although the FAA had intended to propose common requirements for both Part 121 air carrier pilots and Part 135 air taxi and commuter pilots, the NPRM addresses only air carrier pilots. "The agency has decided to take incremental steps in addressing fatigue," the NPRM said. However, Part 135 operators and pilots were put on notice: "The FAA does not intuitively see any difference in the safety implications between the two types

of operations. ... Accordingly, the Part 135 community should expect to see an NPRM addressing its operations that looks very similar to, if not exactly like, the final rule the agency anticipates issuing as part of this rule-making initiative."

That got the attention of several air taxi operators and the organizations representing them. The National Air Transportation Association, for example, said that the FAA's plan does not account for the different nature of air taxi operations, which often are conducted on short notice without the benefit of advance scheduling, and ignores substantial work performed by the industry five years ago to formulate flight, duty and rest requirements suitable to Part 135 operations.

'Slurred Speech, Droopy Eyes'

Part 117 would prohibit pilots from accepting or continuing a flight assignment if they know they are too fatigued to fly. However, the NPRM cites research showing that individuals typically underestimate their level of fatigue. Thus, fitness assessment would be a responsibility shared by a pilot's airline and by his or her colleagues.

Each airline would be required to "assess a flight crewmember's state when he or she reports to work" and ground the pilot if he is showing signs of fatigue, the NPRM said. In addition, pilots would have to keep an eye on each other and report to airline management any colleague who shows signs of fatigue such as "slurred speech, droopy eyes [or] requests to repeat things."

The airlines would be allowed to take punitive action against pilots who are blatantly responsible for their own fatigue. "It is unfair to place all the blame for fatigue on the carriers," the NPRM said. "Pilots who pick up extra hours, moonlight [work at other jobs], commute irresponsibly, or simply choose not to take advantage of the required rest periods are as culpable as carriers who push the envelope by scheduling right up to the maximum duty limits, assigning flight crewmembers who have reached their flight time limits additional duties under Part 91, and exceeding the maximum flight and duty limits by claiming unreasonably foreseeable circumstances that are beyond their control."

Summary of Current and Proposed Requirements						
	Current ¹	Proposed ²				
Rest time						
Minimum prior to duty (domestic)	8–11 hours, depending on flight time	9 hours				
Minimum prior to duty (international)	8 hours to twice the 9 hours number of hours flown					
Duty time						
Maximum (unaugmented)	16 hours	9–13 hours, depending on start time and number of flight segments				
Maximum (augmented)	16–20 hours, depending on crew size	12–18 hours, depending on start time, crew size and aircraft rest facilities				
Flight time						
Maximum (unaugmented)	8 hours	8–10 hours, depending on duty period start time				
Maximum (augmented)	8–16 hours, depending on crew size	None				
Notes						
1. U.S. Federal Aviation Regulations Part 121						
2. Notice of proposed rulemaking, Sept. 14, 2010						
Source: U.S. Federal Aviation Administration						

Table 1

The reference to Part 91 applies to ferry flights. The NPRM notes that airlines regularly exceed Part 121 duty time limits by assigning pilots to conduct positioning and maintenance flights under the general operating and flight rules, which do not include duty limits. The proposal would allow such flights to be continued under Part 91, but they would be governed also by the new flight, duty and rest requirements in Part 117.

Flight Duty Periods

The proposed requirements are extensive and, in some cases, complex. Basically, the cornerstone is a set of flight duty period limits based on the time of day a trip starts, whether the pilot has become "acclimated" to the area, whether he or she is part of an "augmented" or "unaugmented" flight crew, and the number of segments to be flown (Table 2).

According to the FAA's definitions, a pilot is considered "acclimated" if he has been in the area for at least 72 hours or has been free from duty for at least 36 consecutive hours, and an "augmented" flight crew comprises more than the minimum number of pilots required for the aircraft type.

The data in Table 2 would apply to a pilot who is acclimated and is part of an unaugmented flight crew. The maximum flight duty periods would be reduced by 30 minutes if the pilot is not acclimated or has been assigned to a flight crossing more than four time zones.

The start times are not local times; they correspond to the current time at the pilot's home base or at another area to which the pilot has become acclimated. For example, if a pilot is based in Chicago, a flight duty period beginning at 1000 in London would be treated as if it began at 0400 because of the six-hour time difference. The period ends when the aircraft is parked after the last flight.

Proposed Flight Duty Periods								
	Maximum Flight Duty Period (Hours) Based on Number of Flight Segments ²							
Start Time ¹	1	2	3	4	5	6	7+	
0000-0359	9	9	9	9	9	9	9	
0400-0459	10	10	9	9	9	9	9	
0500-0559	11	11	11	11	10	9.5	9	
0600-0659	12	12	12	12	11.5	11	10.5	
0700-1259	13	13	13	13	12.5	12	11	
1300-1659	12	12	12	12	11.5	11	10.5	
1700-2159	11	11	10	10	9.5	9	9	
2200-2259	10.5	10.5	9.5	9.5	9	9	9	
2300-2359	9.5	9.5	9	9	9	9	9	

Notes

- 1. Local time at the flight crewmember's home base or at a location in another time zone to which the crewmember has become acclimated. The maximum flight periods are reduced by 30 minutes for a crewmember who has not become acclimated to the time zone.
- 2. Applies to unaugmented flight crews.

Source: U.S. Federal Aviation Administration

Table 2

A different set of flight duty periods has been proposed for augmented crews.

The FAA also has proposed limits on the number of hours that can be flown during a flight duty period (Table 3).

Airlines would be required to provide a minimum of nine hours of rest before a pilot begins a flight duty period. The time required for transportation to or from a duty station would not be included in a rest period, and no contact between the pilot and the airline would be allowed.

Any airline that would not be able to operate under the new rules could submit, as an alternative, a fatigue risk management system (FRMS) tailored to its operations. The FAA in August published Advisory Circular 120-103, which provides guidelines for developing an FRMS.

'Sorely Needed'

Not all the public comments were brickbats; the proposal also drew support from many organizations and individuals. The Air Line Pilots Association,

Proposed Flight Time Limits				
Start Time ¹	Maximum Flight Time (hours) ²			
0000-0459	8			
0500-0659	9			
0700-1259	10			
1300-1959	9			
2000-2359	8			
Notes				

- 1. Local time at the flight crewmember's home base.
- 2. Applies to unaugmented flight crews.

Source: U.S. Federal Aviation Administration

Table 3

International said that the changes are "sorely needed." Like most organizations, however, it did recommend several specific revisions and clarifications.

The U.S. National Transportation Safety Board said that it "strongly supports most aspects of the proposed rule" but noted "important issues that remain to be addressed," such as fatigue factors in short-haul operations, for which little data exist.