U.S. Department
of Transportation
**Federal Aviation
Administration**

Office of the Chief Counsel

800 Independence Ave., S.W.
Washington, D.C. 20591

AUG 12 2015

Mr. Jeff Schnaubelt
Japek Flightcrew Management
185 Kimberly Road
Barrington, IL 60010

Re: Request for Legal Interpretation of 14 C.F.R. §§ 117.5, "Fitness for Duty," and 117.25(e), "Rest Period"

Dear Mr. Schnaubelt:

This responds to your January 20 and February 4 requests by electronic mail for an interpretation by the Federal Aviation Administration (FAA) of 14 C.F.R. part 117, "Flight and Duty Limitations and Rest Requirements: Flightcrew Members." You raise three questions in your communications.

I. The 8-hour sleep opportunity in 14 CFR §117.25 (e)

First, you request clarification concerning the 8-hour sleep opportunity requirement in 14 CFR §117.25, "Rest Period," in the context of a hypothetical where a flightcrew member receives a 10-consecutive-hour rest period that includes an 8-hour sleep opportunity, but factors such as homeostatic sleep drive and circadian rhythm disrupt the flightcrew member's sleep. You ask us to determine, in this situation, whether the flightcrew member had been provided with a minimum of 8 uninterrupted hours of sleep opportunity as required by §117.25(e).

The flightcrew member in your hypothetical meets the requirements of §117.25(e) because the flightcrew member was provided with 10 consecutive hours immediately before beginning the flight duty period (FDP)[1] measured from the time the flightcrew member was released from duty, and, based upon your facts, the 10-hour rest period included an 8-hour uninterrupted sleep opportunity. Section 117.25(e) states:

> No certificate holder may schedule and no flightcrew member may accept an assignment for any reserve or flight duty period unless the flightcrew member is given a rest period of at least 10 consecutive hours[2] immediately before beginning the reserve

[1] Flight duty period (FDP) means a period that begins when a flightcrew member is required to report for duty with the intention of conducting a flight, a series of flights, or positioning or ferrying flights, and ends when the aircraft is parked after the last flight and there is no intention for further aircraft movement by the same flightcrew member. 14 CFR §117.3.

[2] However, depending on the specific nature of an individual flightcrew member's schedule, the other subsections of §117.25 may require a longer rest period. For example, if a flightcrew member has not been

> or flight duty period measured from the time the flightcrew member is released from duty. The 10 hour rest period must provide the flightcrew member with a minimum of 8 uninterrupted hours of sleep opportunity.

As part of the FAA's 2013 "Clarification of Flight, Duty, and Rest Requirements," we noted that §117.25(e) and (f) "do not require that the 8-hour sleep opportunity take place during a specific time of day – they simply require that an 8-hour sleep opportunity be provided at some point during the 10-hour rest period." 78 Fed. Reg. 14166, 14168 (Mar. 5, 2013).

Please note that in accordance with §117.5(d), each flightcrew member must either make a written affirmation that he or she is "fit for duty" under §117.5(d) prior to commencing flight or terminate the assigned FDP pursuant to §117.5(c) if too fatigued to continue the assigned FDP. The requirement that each flightcrew member make a written affirmation about their continued fitness for duty applies to each flight segment of the assigned FDP. Legal Interpretation from Mark W. Bury, Assistant Chief Counsel for Regulations, FAA, to Charles J. Edwards (Feb. 12, 2014). Requiring a written fitness for duty affirmation before each flight segment helps to ensure that flightcrew members are "physiologically and mentally prepared and capable of performing assigned duties at the highest degree of safety." 14 CFR §117.3.

Under §117.5(a), the flightcrew member in your hypothetical is required to report for any FDP rested and prepared to perform his or her assigned duties. Under §117.5(b), if, for any reason, the flightcrew member reported for a FDP too fatigued to safely perform his or her assigned duties, the certificate holder could not assign an FDP to that crew member. If due to homeostatic sleep drive and circadian rhythm (or for any other reason), the flightcrew member in your hypothetical believed that he or she was not "fit for duty prior to commencing flight," then they would be required to advise the certificate holder that he or she would not be able to perform their assigned duties. The method or cause of disruption is not the determining factor, whether it happens to be a fire alarm or physiological sensitivity. The flightcrew member must make the determination and then take the necessary steps to comply with the rule.

II. Fitness for duty affirmation conditional upon sleep during an augmented crew rest break

Your second question concerns whether during augmented flightcrew operations, a pilot may report for duty under §117.5 as "fit for duty" when the pilot knows that if he is not able to obtain 2 hours of sleep during a flightcrew rest break, he will become fatigued later in the flight. You presented the following hypothetical for this question:

> A pilot wakes up in Chicago (home base) at 8am after getting a full 8-hours of uninterrupted sleep. He has a 5pm sign-in that night for a 3-pilot augmented flight. The flight is a 6pm departure from Chicago that arrives in London at 205am Chicago time. The pilot doesn't get any further sleep before reporting to the airport at 5pm. He affirms Fit for Duty, as per FAR 117.5(d), based on the assumption that he will sleep inflight in the Class-1 on-board rest facility between 7-9pm (2 hours) during the first crew rest break. He knows from past experience that when he sleeps during this break he will not become fatigued during the

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provided 30 consecutive hours of rest in the preceding 168-hour period, the "required intervening rest period" would be 30 consecutive hours pursuant to §117.25(b). 78 Fed. Reg. 14167.

flight, but if he does not sleep (due to noise, turbulence, etc.), then he will become fatigued before the end of the flight as he will be continuously awake for approximately 18 hours.

Section 117.5(a) requires that "each flightcrew member must report for any flight duty period rested and prepared to perform his or her assigned duties." There is also a requirement in §117.5(d) for a flightcrew member to affirm that he or she is fit for duty prior to commencing a flight segment. Implicit in this provision is a requirement that the flightcrew member is actually fit for duty at the time that he or she makes this statement. According to your hypothetical, the flightcrew member would not be fit for duty for the Chicago-London flight segment unless he gets two more hours of sleep subsequent to affirming fit-for-duty. Under these circumstances, the pilot would not be fit for duty at the time of the affirmation and would be in violation of §117.5 if he makes the affirmation without first obtaining the two hours of sleep necessary to render himself fit for duty. Again, at the time the pilot makes the fit-for-duty affirmation, he or she must be fit for duty for that flight segment. That affirmation cannot be conditioned upon the pilot obtaining any rest or sleep during that flight segment.

III. Fitness for duty affirmation and utilizing the 8-hour sleep opportunity

Your third question relies upon the same hypothetical above. You ask whether the flightcrew member may report "fit for duty" under §117.5(d) if he naps for a few hours during the day. You also ask whether the flightcrew member needs to utilize the 10-consecutive-hour period immediately before beginning the FDP for his 8 uninterrupted hours of sleep opportunity.

This question is related to your first two questions. In your hypothetical, the flightcrew member would be able to make the required §117.5(d) fitness-for-duty affirmation only if he believed he met the §117.3 definition of "fit for duty:" "physiologically and mentally prepared and capable of performing assigned duties at the highest degree of safety." If the flightcrew member did not feel that he was fit for duty, he would not be able to make the §117.5(d) affirmation and he would be expected to notify the certificate holder. So long as the flightcrew member is provided with a rest period of at least 10 consecutive hours immediately before beginning the FDP and that rest period includes a minimum of 8 uninterrupted hours of sleep opportunity, the burden for determining fitness for duty rests on the individual flightcrew member.

This response was prepared by Jonathan Cross, a Senior Attorney in the Regulations Division, Office of the Chief Counsel, and coordinated with the FAA's Flight Standards Service, Air Transportation Division. If you need further assistance, please contact our office at (202) 267-8013.

Sincerely,

Lorelei Peter
Acting Assistant Chief Counsel
for Regulations, AGC-200