

14 CFR Part 117 – Flight and Duty Limitations and Rest Requirements: Flightcrew Member

Briefing #: 27100207

Presented to: Aviation Safety Inspectors
By: Dale Roberts
Part 121 Air Carrier Operations, AFS-220
Date: September 5, 2013



Federal Aviation
Administration



Briefing Overview

- **Understanding Part 117**
- **Applying Part 117**
- **Part 117 Implementation**
- **Part 117 Compliance**



Briefing Objectives

- **Have a working knowledge of Part 117**
- **Ability to apply the limits of Part 117**
- **Qualify flightcrew member rest facilities**
- **Validate Part 117 implementation**



Part 117 Rule

- **Single rule for all kinds of operations**
- **Based on the concept that fatigue is universal, regardless of the kind of operation being conducted**
- **Limitations are based on the best available scientific information**
- **Focuses on time on duty, rest, time on task issues, rest facilities, reserve systems, fatigue education and mitigation initiatives**
- **Fatigue Risk Management Systems (FRMS)**



Part 117 Applicability

- Certificate holders and flightcrew members conducting Part 121 passenger-carrying operations
- All operations directed by Part 121 certificate holders under Part 91 if any segment is conducted as a domestic, flag, or supplemental passenger-carrying operation



Part 117 Applicability

- All flightcrew members conducting an operation under Part 91 on behalf of the part 121 certificate holder if any flight segment is conducted as a domestic, flag, or supplemental passenger-carrying operation.



Question

→ (True or False) Effective January 4, 2014, all Part 121 air carriers must comply with the limits of Part 117.



Answer

→ (True or False) Effective January 4, 2014, all Part 121 air carriers must comply with the limits of Part 117.

→ False. Only Part 121 air carriers conducting passenger-carrying operations.



Part 117 Applicability

- Flight, duty and rest limits for all-cargo operations continue to comply with the limits of Part 121, subparts Q, R and S
- A certificate holder may opt to conduct its operations under the limits of Part 117:
 - All-cargo operations under contract with the U.S. Government, or
 - All-cargo operations not under contract with the U.S. Government



Question

- (True or False) After January 4, 2014, may a Part 121 air carrier conducting its all-cargo operations continue to operate under the limits of Part 121, subparts Q, R and S, as applicable.



Answer

→ (Yes or No) After January 4, 2014, may a Part 121 air carrier conducting its all-cargo operations continue to operate under the limits of Part 121, subparts Q, R and S, as applicable.

→ Yes



Applicability – Tail-End Ferry

→ If a Part 117 flight segment precedes a Part 91 operation, the Part 91 operation must be conducted within the limits of Part 117



Question

→ (Yes or No) A flightcrew conducts three flight segments under Part 117 followed by a Part 91 ferry flight. Do the limits of Part 117 apply to the ferry flight since it is conducted under Part 91?



Answer

→ (True or False) A flightcrew conducts three flight segments under Part 117 followed by a Part 91 ferry flight. Do the limits of Part 117 apply to the ferry flight since it is conducted under Part 91?

→ Yes, a Part 117 flight segment preceded the Part 91 flight operation.



Definitions

- In addition to the definitions in §§ 1.1 and 110.2 of Title 14 Code of Federal Regulations (14 CFR), the following definitions of Part 117 apply
- In the event there is a conflict in definitions, the definitions in Part 117 are controlling



Definitions

- Acclimated
- Airport/standby reserve
- Augmented flightcrew
- Deadhead transportation
- Duty
- Fatigue
- Fit for duty
- Flight duty period (FDP)
- Home base



Definitions

- **Lineholder**
- **Long-call reserve**
- **Physiological night's rest**
- **Reserve availability period (RAP)**
- **Reserve flightcrew member**
- **Rest facility**
 - Class 1
 - Class 2
 - Class 3



Definitions

- **Rest period**
- **Scheduled**
- **Short-call reserve (*RAP)**
- **Split duty**
- **Suitable accommodation**
- **Theater**
- **Unforeseen operational circumstances**
- **Window of circadian low (WOCL)**



Question

→ A flightcrew member is assigned a 4-hour period for distance learning with no other assignments to follow the completion of the training session. The time spent in distance learning is considered:

- a) Duty
- b) FDP
- c) RAP



Answer

→ A flightcrew member is assigned a 4-hour period for distance learning session with no other assignments to follow the completion of the training session. The time spent in distance learning is considered:

- a) Duty



Question

→ A flightcrew member is assigned deadhead transportation from IAD to DFW. Upon arrival at DFW, the same flightcrew member operates a flight segment from DFW to LAX. The period encompassing the deadhead transportation is considered:

- a) Duty
- b) FDP
- c) Deadhead is a Part 91 operation



Answer

→ A flightcrew member is assigned deadhead transportation from IAD to DFW. Upon arrival at DFW, the same flightcrew member operates a flight segment from DFW to LAX. The period encompassing the deadhead transportation is considered:

- b) FDP



Fitness for Duty

- Flightcrew member must be fit for duty
- Certificate holder may not assign and a flightcrew member may not accept an assignment if that flightcrew member has reported too fatigued



Fitness for Duty

- Once the flightcrew member reports being too fatigued, the certificate holder may not permit the flightcrew member to continue an assignment
- A flightcrew member must attest that he or she is fit for duty prior to commencing each flight segment



Fitness for Duty

- This is accomplished by each flightcrew member assigned to the flight segment signing the dispatch or flight release stating they are fit for duty
- AC 117-3, Fitness for Duty



Question

- (True or False) A flightcrew member need only sign the first dispatch/flight release at the beginning of their FDP attesting they are fit and prepared to perform their assigned duties.



Answer

→ (True or False) A flightcrew member need only sign the first dispatch/flight release at the beginning of their FDP attesting they are fit and prepared to perform their assigned duties.

→ False. The flightcrew member must sign the dispatch/flight release for each segment during the FDP.

The PIC may NOT attest for the crew



Question

→ Prior to starting the fourth segment of a five segment FDP a flightcrew member determines he or she is too fatigued to perform their duties. What action(s) should the flightcrew member do?

- a) Get some stronger coffee.
- b) Report the fatigue event to the carrier.
- c) Do not sign the dispatch/flight release.
- d) Answers B and C are correct



Answer

→ Prior to starting the fourth segment of a five segment FDP a flightcrew member determines he or she is too fatigued to perform their duties. What action(s) should the flightcrew member do?

d) Answers B and C are correct



Fatigue Risk Management System

→ Fatigue risk management system (FRMS) means a management system used by a certificate holder to mitigate the effects of fatigue in its particular operations. It is a data-driven process and a systematic method used to continuously monitor and manage safety risks associated with fatigue-related error.



FRMS

- **The certificate holder may not exceed any limitation in Part 117 unless otherwise authorized under an FAA-approved FRMS**
- **Alternative method of compliance (AMOC)**
- **Must demonstrate at least an equivalent level of safety against fatigue-related accidents and incidents**



FRMS

- **FRMS is a data-driven system based upon fatigue scientific principles**
- **Requires data collection and analysis**
- **Must have a continuous improvement process**
- **Data is validated by the FAA**



FRMS

- **FRMS applications must be submitted to AFS-200 for processing**
- **AC 120-103A, Fatigue Risk Management Systems for Aviation Safety**
- **Approval of FRMS authorizations is the responsibility of AFS-200**



FRMS

- **AFS-200 will coordinate with the POI during the process**
- **If the validation proves successful, AFS-200 will issue the POI an approval memo to issue OpSpec A318 for the FRMS authorization**



Fatigue Education and Awareness Training Program

→ AC 117-2, Fatigue Education and Awareness Training Programs

→ The focus is to increase awareness of:

- Fatigue
- The effects of fatigue on pilots, and
- Countermeasures



Training Program Audience

→ All employees of the certificate holder responsible for administering the provisions of Part 117 to include:

- Flightcrew members
- Dispatchers
- Individuals directly involved in the scheduling of flightcrew members
- Individuals directly involved in operational control
- Any employee providing direct management oversight of those areas



Fatigue Education and Awareness Training Programs

- Training frequency is every 12-calendar months
- Training frequency is consistent with Public Law (P.L.) 111-216, section 212(b)
- Section 117.9 expands the audience from that required under P.L. 111-216, section 212(b)



Fatigue Education and Awareness Training Programs

- Program updates
- Must update the training program biannually
- Training program updates must be submitted 12 months prior to the required update



Basic FDP and Flight Time Limits

- A flightcrew member's FDP limits are prescribed in:
 - Table B of Part 117 for **unaugmented** operations
 - Table C of Part 117 for **augmented** operations
- Flight time limits reside within the flightcrew member's maximum allowable FDP limit
- 168-hour look-back (FDP)
- 672-hour look-back (flight time and FDP)
- Any 365 consecutive calendar day period (flight time)



Flight Time Limitations (Unaugmented Operations)

Table A prescribes the maximum flight time limits during an unaugmented FDP

TABLE A TO PART 117 – MAXIMUM FLIGHT TIME LIMITS FOR UNAUGMENTED OPERATIONS	
Time of report (acclimated)	Maximum flight time (hours)
0000-0459	8
0500-1959	9
2000-2359	8



Flight Time Limitations (Augmented Operations)

- **Three pilots: 13 hours during an FDP**
- **Four pilots: 17 hours during an FDP**



Extension of Flight Time Limits

- **After takeoff only**
- **Unforeseen operational circumstances**
- **May exceed the maximum flight time limits to the extent necessary to land at the next destination or alternate airport**
- **May exceed the cumulative flight time limits**



Reporting Flight Time Limit Extensions

- **Must report to the FAA within 10 days of the extension**
- **The amount of flight time exceeded**
- **Circumstances surrounding the extension**
- **If the circumstances were within the control of the certificate holder, corrective actions to minimize future extensions**
- **Must implement corrective actions within 30 days of the extension**



Question

- **What is the limit on a flight time extension?**
 - a) **2 hours**
 - b) **To the extent necessary to land at the nearest destination or alternate airport**
 - c) **To the farthest destination or alternate airport**
 - d) **To the most suitable destination or alternate airport**



Answer

→ What is the limit on a flight time extension?

b) To the extent necessary to land at the nearest destination or alternate airport.



Question

→ May a flightcrew member's cumulative flight time limits be exceeded during a flight time limit extension?

- a) No
- b) Yes



Answer

→ **May a flightcrew member's cumulative flight time limits be exceeded during a flight time limit extension?**

b) Yes



FDP Limits - Unaugmented

- **Table B of Part 117**
- **Scheduled time of start – acclimated**
- **Number of segments flown**
- **30-minute reduction in the maximum applicable FDP limit if un-acclimated**
- **The applicable FDP limit is based upon the local time at the theater in which the flightcrew member was last acclimated**
- **Enter the Table based upon the local time at last point of acclimation**



FDP Limits - Unaugmented

TABLE B TO PART 117 – FLIGHT DUTY PERIOD: Unaugmented Operations

Scheduled time of start (acclimated time)	Maximum flight duty period (hours) for lineholders based on number of flight segments						
	1	2	3	4	5	6	7+
0000-0359	9	9	9	9	9	9	9
0400-0459	10	10	10	10	9	9	9
0500-0559	12	12	12	12	11.5	11	10.5
0600-0659	13	13	12	12	11.5	11	10.5
0700-1159	14	14	13	13	12.5	12	11.5
1200-1259	13	13	13	13	12.5	12	11.5
1300-1659	12	12	12	12	11.5	11	10.5
1700-2159	12	12	11	11	10	9	9
2200-2259	11	11	10	10	9	9	9
2300-2359	10	10	10	9	9	9	9



FDP Limits - Unaugmented

- Segments have an impact on FDP limits
- FDP limits tend to increase with a reduction in flight segments
- 30 minute reduction in the flightcrew member's maximum applicable FDP limit when they are unacclimated



Question

→ (True or False) The FDP limits prescribed in Tables B and C of Part 117 apply to the crew assigned to a flight or series of flights?



Answer

→ (True or False) The FDP limits prescribed in Tables B and C of Part 117 apply to the crew assigned to a flight or series of flights?

False. The FDP limits in Tables B and C apply to the individual flightcrew member.



Question

→ An acclimated flightcrew member is scheduled to begin an FDP at 1215 with 4 segments planned. The carrier adds an additional 2 segments to his schedule. What is the flightcrew member's maximum applicable FDP limit?



Question

→ An acclimated flightcrew member is scheduled to begin an FDP at 1215 with 4 segments planned. The carrier adds an additional 2 segments to his schedule. What is the flightcrew member's maximum applicable FDP limit?

FDP limit of 12 hours



Class of Rest Facilities

- **Class 1: Good sleep quality**
 - **Class 2: Fair sleep quality**
 - **Class 3: Poor sleep quality**
- **The better the sleep quality, the longer the FDP limit**



Class 1 Rest Facility

- **Means a bunk or other surface that allows for a flat sleeping position and is located separate from both the flight deck and passenger cabin in an area that is temperature controlled, allows the flightcrew member to control light, and provides isolation from noise and disturbance.**



Example of a Class 1 Rest Facility



Part 117: Flightcrew Member Presentation
September 5, 2013



Federal Aviation
Administration

57

Example of a Class 1 Rest Facility



Part 117: Flightcrew Member Presentation
September 5, 2013



Federal Aviation
Administration

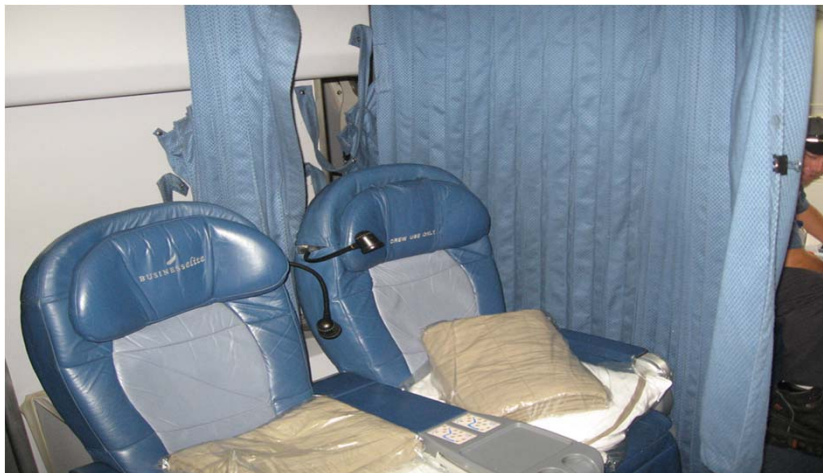
58

Class 2 Rest Facility

- Means a seat in an aircraft cabin that allows for a flat or near flat sleeping position; is separated from passengers by a minimum of a curtain to provide darkness and some sound mitigation; and is reasonably free from disturbance by passengers or flightcrew members
- Passengers may not occupy a seat beside a flightcrew member in a class 2 rest facility



Example of a Class 2 Rest Facility



Class 3 Rest Facility

- Means a seat in an aircraft cabin or flight deck that reclines at least 40 degrees and provides leg and foot support
- A passenger may occupy a seat beside a flightcrew member in a class 3 rest facility



Example of a Class 3 Rest Facility



Rest Facilities

- **Required for augmentation**
- **When is augmentation required?**
 - Three or more pilots are assigned to the flight
 - Scheduling flight times in excess of the flight time limits of Table A
 - Using the FDP limits in Table C



Question

- **(True or False) One of the criteria of a class 2 rest facility requires a curtain that provides darkness and some sound mitigation.**
- **May a passenger occupy a seat beside a flightcrew member occupying a class 2 rest facility?**



Answer

→ (True or False) One of the criteria of a class 2 rest facility requires a curtain that provides darkness and some sound mitigation.

True

→ May a passenger occupy a seat beside a flightcrew member occupying a class 2 rest facility?

Absolutely Not



Question

→ A rest facility with a sound mitigating curtain around a seat is located in the economy-class section of the airplane. The seat has the capability to recline to 30 degrees. Does this rest facility meet the class 2 criteria?

a) Yes

b) No

c) Maybe



Answer

→ (True or False) A rest facility with a sound mitigating curtain around a seat is located in the economy-class section of the airplane. The seat has the capability to recline to 30 degrees. Does this rest facility meet the class 2 criteria?

b) No



FDP Limits - Augmented

- Table C of Part 117
- Scheduled time of start – acclimated
- Class of rest facility used and number of pilots assigned to the flight
- 30-minute reduction in the maximum applicable FDP limit if unacclimated



FDP Limits - Augmented

- The maximum applicable FDP limit is based upon the local time within the theater in which the flightcrew member was last acclimated
- Enter Table C based on local time at the flightcrew member's last point of acclimation



FDP Limits - Augmented

TABLE C TO PART 117 – FLIGHT DUTY PERIOD: Augmented Operations						
Scheduled time of start (acclimated time)	Maximum flight duty period (hours) based on rest facility and number of pilots					
	Class 1 rest facility		Class 2 rest facility		Class 3 rest facility	
	3 pilots	4 pilots	3 pilots	4 pilots	3 pilots	4 pilots
0000-0559	15	17	14	15.5	13	13.5
0600-0659	16	18.5	15	16.5	14	14.5
0700-1259	17	19	16.5	18	15	15.5
1300-1659	16	18.5	15	16.5	14	14.5
1700-2359	15	17	14	15.5	13	13.5



FDP Limits - Augmented

- Landing pilot must have 2 consecutive hours of in-flight rest opportunity during the second half of FDP
- Pilot monitoring must have 90 consecutive minutes available for in-flight rest during the FDP
- FDP is limited to 3 segments
- Deadhead is not considered a segment
- One flightcrew member qualified in accordance with § 121.543(b)(3)(i) must be at the flight controls



Series of FDPs

- Two or more consecutive FDPs individually separated by a minimum of a 10 hour rest opportunity
- A flightcrew member's series of FDPs change when one of the following occurs:
 - The flightcrew member receives a 30 consecutive hour rest period reset
 - The flightcrew member becomes unacclimated
 - The flightcrew member acclimates to a new theater



Acclimated vs. Unacclimated

- Point last acclimated
- Where is the point last acclimated? The point where a new series of FDPs begin
- Acclimated as long as the FDP does not end more than 60 degree longitude (east or west) from the point last acclimated. If this occurs the flightcrew member is unacclimated and a new series of FDP begin.



Acclimated vs. Unacclimated

- To determine the maximum FDP limit, enter the Table based on the local time at the point last acclimated, regardless of where the flightcrew member is physically located
- If the flightcrew member's FDP ends outside the limits of the theater, they are unacclimated. This starts a new series of FDPs



Acclimated vs. Unacclimated

- A flightcrew member becomes acclimated to a new theater upon receiving 36 consecutive hours rest at a new point outside the theater last acclimated, or is in the new theater for 72 consecutive hours
- This starts a new series of FDPs
- This also establishes a new point of acclimation used to determine a flightcrew member's FDP limits



Use of Local Time at Home Base

- The certificate holder must designate whether the flightcrew member's FDP limit will be based on the point last acclimated or local time at the flightcrew member's home base
- If the FDP limit is based on the point last acclimated, enter the Table based on the time at the point last acclimated



Use of Local Time at Home Base

- If local time at the home base is used, enter the Table based on local time at the home base
- Once the designation is made, the flightcrew member must use that designation (either last acclimated or home time) until beginning a new series of FDPs



Example of Last Acclimated

- Flightcrew member begins his series of FDPs in JFK
- To determine their maximum applicable FDP limit, the flightcrew member will enter Table B or C, as applicable, based on local time at JFK, regardless of where he/she is physically located



Example of Local Time at Home Base

- Flightcrew member is based at ORD and begins his series of FDPs in IAD
- To determine their maximum applicable FDP limit, the flightcrew member will enter Table B or C, as applicable, based on local time at ORD, regardless of where the flightcrew member is physically located



Question

- A flightcrew member starts a series of FDPs in JFK. The first rest period occurs in CDG. The flightcrew member receives 10 hour rest periods between a series of FDPs that span a 78 hour period with each FDP ending in CDG. At the conclusion of the 78 hour period, where is the flightcrew member acclimated?
 - a) JFK
 - b) CDG



Answer

→ A flightcrew member starts a series of FDPs in JFK. The first rest period occurs in CDG. The flightcrew member receives 10 hour rest periods between a series of FDPs that span a 78 hour period with each FDP ending in CDG. At the conclusion of the 78 hour period, where is the flightcrew member acclimated?

b) CDG



Question

→ A flightcrew member begins a series of FDPs in IAD. A 10 hour rest period separates each FDP. The first FDP ends in LAX and the second FDP ends in DFW. To determine their FDP limits, the flightcrew member would enter Table B or C, as applicable, based on local time at:

- a) LAX
- b) DFW
- c) IAD



Answer

→ A flightcrew member begins a series of FDPs in IAD. A 10 hour rest period separates each FDP. The first FDP ends in LAX and the second FDP ends in DFW. To determine their FDP limits, the flightcrew member would enter Table B or C, as applicable, based on local time at:

c) IAD



Split Duty

- Fatigue mitigation initiative during nighttime operations
- A flight duty period that has a scheduled break in duty that is less than a required rest period
- Split duty break must occur in a suitable accommodation



Split Duty

- Split duty rest breaks provide carriers with some operational flexibility during nighttime operations (CDOs and hub freight ops)
- Typically, split duty rest would benefit carriers who conduct late night and early morning operations out of a city pair where the flightcrew members would be afforded a rest opportunity, but not a legal rest period.



Split Duty Requirements

- Not applicable to augmented operations
- Rest opportunity is provided between 22:00 and 05:00 local time
- Time spent in the suitable accommodation is at least 3 hours measured from the time the flightcrew member reaches the suitable accommodation
- Rest opportunity is scheduled before the beginning of the FDP in which that rest opportunity is taken



Split Duty Requirements

- Rest opportunity that the flightcrew member is actually provided may not be less than the rest opportunity that was scheduled
- Rest opportunity is not provided until the first segment of the FDP has been completed (deadhead is not a segment)
- The combined time of the FDP and the rest opportunity does not exceed 14 hours



Question

- Can a flightcrew member take split duty credit even though they have not completed the first segment of their FDP?
 - a) Yes, as long as the split duty rest is scheduled
 - b) No, deadhead is not considered a segment



Answer

→ **Can a flightcrew member take split duty credit even though they have not completed the first segment of their FDP?**

b) No, deadhead is not considered a segment



FDP Extensions - General

- **Applies to unaugmented and augmented FDP limits**
- **May be applied as a result to unforeseen operational circumstances occurring prior to takeoff or after takeoff**
- **PIC must concur with the FDP extension**
- **PIC concurrence must be archived**
- **Extensions of FDP must be reported to the FAA**



FDP Extensions - General

- **Maximum applicable FDP limits have a 30- minute buffer for unforeseen operational circumstances**
- **This 30-minute period may not be used for scheduling**
- **This 30-minute period is not considered in addition to the maximum 2-hour limit on FDP extensions**



FDP Extensions - General

- **Prior to takeoff only, the flightcrew member's maximum applicable FDP limit may be extended by 2 hours**
- **The PIC may agree to an extension less the maximum 2 hours**
- **That flightcrew member must have a rest period of 30 consecutive hours prior to accepting another extension**



FDP Extensions Prior to Takeoff

- The PIC and the certificate holder may extend the maximum FDP permitted in Tables B or C by more than 30 minutes
- The FDP limit may be extended up to 2 hours beyond the maximum applicable limit
- Flightcrew member must have 30 consecutive hours rest prior to accepting another FDP extension



FDP Extensions Prior to Takeoff

- FDP cannot be extended if it causes a flightcrew member to exceed the cumulative FDP limits
- Must report to the FAA within 10 days any FDP that exceeded the maximum FDP permitted in Tables B or C by more than 30 minutes



FDP Extensions Prior to Takeoff

The report must contain the following:

- A description of the extended FDP and the circumstances surrounding the extension; and
- If the circumstances were within the certificate holder's control, the corrective action(s) to minimize the need for future extensions
- Each certificate holder must implement the corrective action(s) within 30 days from the date of the extended FDP



FDP Extensions After Takeoff

- **Extend maximum FDP limits in Tables B or C to the extent necessary to safely land at the next destination or alternate airport**
- **Must have 30 consecutive hours of rest prior to accepting another FDP extension**
- **May exceed the cumulative FDP limits**
- **Report the FDP extension within 10 days**
- **The report must contain a description of the circumstances surrounding the FDP extension**



Question

- One flightcrew member serving in a crew of 2 pilots had an FDP extension 3 days ago. Since taking the extension that flightcrew has not received a 30 consecutive hour rest period. May that flightcrew member accept another FDP extension under these conditions?
- a) Yes
 - b) No
 - c) Yes, as long as the PIC concurs



Answer

- One flightcrew member serving in a crew of 2 pilots had an FDP extension 3 days ago. Since taking the extension that flightcrew has not received a 30 consecutive hour rest period. May that flightcrew member accept another FDP extension under these conditions?
- b) No**



Question

→ A flightcrew member has an FDP limit of 12 hours. The flightcrew member's last scheduled segment of their FDP is a ferry flight that extends the FDP to 12.5 hours. Can the flightcrew member accept the FDP?

- a) Yes
- b) No, the 30 minute period may not be used for scheduling
- c) Yes, ferry flights do not apply



Answer

→ A flightcrew member has an FDP limit of 12 hours. The flightcrew member's last scheduled segment of their FDP is a ferry flight that extends the FDP to 12.5 hours. Can the flightcrew member accept the FDP?

- b) No, the 30 minute period may not be used for scheduling



Question

→ If an FDP extension prior to takeoff is applied, can the flightcrew members assigned to the flight exceed the cumulative FDP limits?

- a) Yes, provided they received 30 consecutive hours of rest prior to the extension
- b) No, FDP cumulative limits may not be exceeded when applying an FDP extension prior to takeoff



Answer

→ If an FDP extension prior to takeoff is applied, can the flightcrew members assigned to the flight exceed the cumulative FDP limits?

- b) No, FDP cumulative limits may not be exceeded when applying an FDP extension prior to takeoff.



Flightcrew Status

- A reserve flightcrew member means a flightcrew member who is available to receive an assignment for duty
- A lineholder means a flightcrew member who has been assigned an FDP



Reserve Status

- A flightcrew member's reserve status will fall into one of three categories:
 - Long-call reserve
 - Short-call reserve
 - Airport/standby reserve



Reserve

- Unless specifically designated by the certificate holder, a flightcrew member assigned reserve is on long-call status
- Short-call reserve requires the flightcrew member to be assigned a reserve availability period (RAP)
- Airport/standby reserve requires the flightcrew member to be assigned an FDP



Long-Call Reserve

- Long-call reserve requires the flightcrew member to be assigned a minimum 10-hour rest period immediately preceding an FDP assignment
- During that 10-hour rest period, the flightcrew member must have 8 uninterrupted hours of sleep opportunity



Long-Call Reserve

→ If a certificate holder contacts a flightcrew member to assign him or her to an FDP that will begin before and operate into the flightcrew member's window of circadian low (WOCL), the flightcrew member must receive a 12 hour notice of report.



Long-Call Reserve

→ A certificate holder may shift a reserve flightcrew member's reserve status from long-call to short-call only if the flightcrew member receives a rest period as provided in § 117.25(e) (10-hour rest opportunity with 8 uninterrupted hours of sleep opportunity).



Short-Call Reserve

- Assigned a reserve availability period (RAP)
- The RAP may not exceed 14 hours
- May not accept a RAP unless the flightcrew member has received a minimum 10-hour rest period with 8 uninterrupted hours of sleep opportunity



Short-Call Reserve

- For an unaugmented operation, the total number of hours a flightcrew member may spend in a FDP and a RAP may not exceed the lesser of:
 - The maximum applicable FDP limit in Table B plus 4 hours, or
 - 16 hours, as measured from the beginning of the RAP



Short-Call Reserve

- For an augmented operation, the total number of hours a flightcrew member may spend in a FDP and a RAP may not exceed the FDP in Table C, plus 4 hours, as measured from the beginning of the RAP



Airport/Standby Reserve

- Any reserve that meets the definition of airport/standby reserve must be designated as airport/standby reserve
- For airport/standby reserve, all time spent in a reserve status is part of the flightcrew member's FDP



Question

- A flightcrew member is assigned a RAP beginning at 1200. The flightcrew member is notified of an unaugmented (4 segment) FDP assignment that begins at 1700. What is his maximum FDP limit?
- a) 10 hours
 - b) 16 hours
 - c) 6 hours



Answer

- A flightcrew member is assigned a RAP beginning at 1200. The flightcrew member is notified of an unaugmented (4 segment) FDP assignment that begins at 1700. What is his maximum FDP limit?
- a) 10 hours



Question

→ (True or False) The time during which a flightcrew member serves on airport/standby reserve is subject to cumulative FDP limits?

- a) True
- b) False



Answer

→ (True or False) The time during which a flightcrew member serves on airport/standby reserve is subject to cumulative FDP limits?

- a) True



Question

→ **May a certificate holder change a flightcrew members reserve assignment from long-call to short-call? If so, under what conditions?**

- a) Yes, if the flightcrew member is fit for duty.
- b) Yes, provided they receive a 10 hour rest period prior to starting the RAP.
- c) No, unless they are acclimated.



Answer

→ **May a certificate holder change a flightcrew members reserve assignment from long-call to short-call? If so, under what conditions?**

- b) Yes, provided they receive a 10 hour rest period prior to starting the RAP.**



Cumulative Limitations

- The limitations include all flying by flightcrew members on behalf of any certificate holder or 91K Program Manager during the applicable periods



Cumulative Flight Time Limitations

- 100 hours in any 672 consecutive hours, or
- 1,000 hours in any 365 consecutive calendar day period



Cumulative FDP Limitations

- **60 FDP hours in any 168 consecutive hours,**
or
- **190 FDP hours in any 672 consecutive**
hours



Rest

- **No certificate holder may assign and no flightcrew member may accept an assignment to any reserve or duty with the certificate holder during any required rest period**
- **Discussion on the “One phone call rule”**



Minimum Rest Periods

- At least 10 consecutive hours immediately before beginning the reserve 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



Minimum Rest Periods

- If a flightcrew member determines that a rest period will not provide 8 uninterrupted hours of sleep opportunity, the flightcrew member must notify the certificate holder
- That flightcrew member cannot report for the assigned FDP until receiving the requirements specified for a minimum rest period (117.25(e))



Rest Periods

- **Before** beginning any reserve or FDP a flightcrew member must be given at least 30 consecutive hours free from all duty in any 168 consecutive hour period
- If a flightcrew member operating in a new theater has received 36 consecutive hours of rest, that flightcrew member is acclimated, and
- Satisfies the 30 consecutive hour requirement for rest in a 168 consecutive hour period



Rest Periods

- If a flightcrew member travels more than 60° longitude during an FDP or a series of FDPs that require him or her to be away from home base for more than 168 consecutive hours, the flightcrew member must be given a minimum of 56 consecutive hours rest upon return to home base.
- This rest must encompass three physiological nights' rest based on local time.



Rest – Deadhead Transportation

- If a flightcrew member engaged in deadhead transportation exceeds the maximum applicable FDP limit in Table B, the flightcrew member must be given a rest period equal to the length of the deadhead transportation but not less than the minimum required for a rest period prior to beginning an FDP.



Consecutive Nighttime FDPs

- Two or more consecutive FDPs that infringe on the flightcrew member's window of circadian low
- Limited to three consecutive nighttime FDPs without any additional mitigation



Consecutive Nighttime FDPs

- May conduct up to five consecutive nighttime FDPs if the certificate holder provides the flightcrew member with an opportunity to rest in a suitable accommodation during each of the five consecutive nighttime FDPs



Consecutive Nighttime FDPs

- Minimum of 2 hours rest opportunity during each of the 5 FDPs
- Rest opportunity must be taken in a suitable accommodation
- Rest opportunity does not start until reaching the suitable accommodation



Consecutive Nighttime FDPs

- Rest opportunity is provided between 2200 and 0500 local
- Actual rest opportunity must meet or exceed the scheduled rest opportunity
- Must fly at least one segment prior to taking the rest opportunity



Emergency and Government Sponsored Operations

- Applies to operations conducted under contract with the U.S. Government and operations conducted pursuant to a deviation under § 119.57.
- Circumstances that could prevent flightcrew members from being relieved by another crew or safely provided with the rest required under § 117.25 at the end of the applicable FDP limit.



Emergency and Government Sponsored Operations

- The PIC may determine that maximum applicable FDP limit must be exceeded to the extent necessary to allow the flightcrew to fly to the closest destination where they can safely be relieved from duty by another flightcrew or can receive the required rest prior to commencing their next FDP.



Emergency and Government Sponsored Operations

- If the operation is under a U.S. Government contract, the flightcrew may not exceed the cumulative:
 - Flight time limits in § 117.23(b), and
 - The FDP limits in § 117.23(c)



Emergency and Government Sponsored Operations

- The flightcrew shall be given a rest period immediately after reaching the destination described equal to the length of the actual FDP or 24 hours, whichever is less



Emergency and Government Sponsored Operations

- Must report to the FAA any flight time and/or FDP limit that was exceeded
- Report within 10 days of the extension
- Describe the need for the extension
- If it was determined to be within the control of the certificate holder, develop and implement corrective actions to minimize future extensions



Qualifying Rest Facilities

- To determine that a rest facility meets the criteria prescribed in part 117 for that specific classification
- The class of rest facility is one of three elements used to determine a flightcrew member's maximum applicable FDP
- Qualification is determined by an evaluation and completion of the appropriate Qualification Analysis Statement (QAS)



Qualifying Rest Facilities

→ Individuals responsible for qualification:

- Class 1: AEG
- Class 2 and 3: POI



Qualification Analysis Statement

- **Three documents, one for each class**
- **QAS is a checklist document capturing all of the requires items for that classification**
- **Satisfactory completion of the QAS qualifies the rest facility as meeting one of three classes and initiates the issuance of OpSpec A117**



Implementation

- **Statement of Compliance**
- **Checklist in table format that captures all of the requirements of Part 117**
- **Recordkeeping**
- **Scheduling software**



Implementation

- Reporting of FDP and flight time extensions
- Concurrence with extensions
- Training requirements
- Fitness for duty



Recap of Part 117 Limitations

- Fatigue education and awareness training
- Flightcrew member status
- Rest requirements
- FDP limitations
- Consecutive nighttime operations



Recap of Part 117 Limitations

- **FDP extensions**
- **Flight time limitations**
- **Cumulative limitations**
- **Split duty limitations**

