

DCA22LA126

OPERATIONAL FACTORS/HUMAN PERFORMANCE

Attachment 11: Fatigue Risk Management Plan



FATIGUE RISK MANAGEMENT PLAN

Elements of the FedEx Express Fatigue Risk Management Plan

Preface	1
Mission Statement	2
Letter from Chief Executive Officer	3
Working Group	4
Purpose/Scope	5
Roles and Responsibilities	6
Components of FRMP	7
Flight Time / Duty Time Limitations	8
Review and Improvement Process	9
Ops Specs	10
Conclusion	11



FATIGUE RISK MANAGEMENT PLAN

1. Preface

- a. This Fatigue Risk Management Plan is submitted in accordance with the FAA Extension Act of 2010, Section 212. FedEx flight operations are conducted in compliance with applicable Federal Aviation Regulations (FARs) and Company Operations Specifications. No procedure or policy stated here shall supersede the FARs or shall be interpreted as a substitute for the exercise of sound judgment.
- b. FedEx has an open communications policy for reporting any safety concern, including fatigue related issues. Good faith fatigue reports from crewmembers will be handled in confidence and will not serve as the basis for counseling or discipline.

2. Mission Statement:

FedEx Express is committed to protecting our crewmembers and all other employees from fatigue-related risk. Joint ownership among all affected personnel is the cornerstone of this program and all stakeholders share responsibility for minimizing fatigue risk and increasing safety. Our worldwide, 24 hour/day operation, in conjunction with our existing Safety Management System, ideally positions us to employ a quality-driven management approach using scientific data and crew training/reporting to identify, analyze, and combat fatigue related issues.



FATIGUE RISK MANAGEMENT PLAN

3. Letter from Chief Executive Officer

August 6, 2021

Federal Aviation Administration
Flight Standards-Air Transportation Policy (AFS-200)
Mr. Tom Malone
[REDACTED]
Washington, DC 20591
Re: FedEx Express Fatigue Risk Management Plan

Dear Mr. Malone:

FedEx is dedicated to understanding and combating any effects of fatigue in our flight operations. As a part of our overall commitment to safety, FedEx is actively working to minimize the risks associated with fatigue in the workplace.

There is no single counter measure that will eliminate the possibility of fatigue. Operational requirements, human physiology, and individual differences dictate that we have a multi-faceted approach to ensure that we successfully mitigate and manage fatigue. We will integrate operational and scientific data into our approach to fatigue mitigation to create a scientifically based plan informed by the real-world experience of working within our unique operations. Our ultimate goal is to maintain and enhance the safety of our crewforce while allowing for operational flexibility.

Our approach to fatigue mitigation is delineated in the attached Fatigue Risk Management Plan (FRMP) and starts with a commitment from our organization's leadership to recognize and manage fatigue-related risks. Flight Operations management has been charged with enhancing the safety aspects of our corporate culture and ensuring that all crewmembers are given every opportunity to work in an alert and rested state. No crewmember should ever feel pressured into flying if fatigued. Accordingly, crewmembers who report their fatigue, in good faith, will not be disciplined on the basis of that report.

The attached FRMP details the fatigue controls currently in place at FedEx as well as our plans for the future.

[REDACTED]

Mr. Scot A. Struminger
EVP & CEO Air Operations

Revision 5 (Effective September 1, 2021)



FATIGUE RISK MANAGEMENT PLAN

4. Working Group

- a. The FedEx FRMP Working Group will meet on a quarterly basis to analyze scheduling data, review fatigue reports, recommend changes to the program, and evaluate recommended improvements to the program. The Working Group will be led by the FRMG Chairman.
- b. Members of the Working Group will include (at a minimum) representatives from:
 - i. Flight Safety
 - ii. Scheduling Improvement Group
 - iii. Crew Resource Planning
 - iv. Crew Resource Scheduling
 - v. Global Operations Control
 - vi. Legal
 - vii. FedEx sleep model expert/sleep scientist
 - viii. Airline Pilots Association (ALPA)
 - ix. FAA (FedEx Principal Operations Inspector or representative) as an observer
 - x. Flight Training (Human Factors)
 - xi. FRMG Chairman (System Chief Pilot or his designee)
 - xii. Flight Operations Duty Officer
 - xiii. Fatigue Event Review Committee (FERC)

5. Purpose/Scope

FedEx Express operates primarily as a Flag/Domestic cargo carrier. Our current operation encompasses a wide range of flying (domestic/international and day/night). The requirement of our crews to sometimes sleep at less favorable times in their circadian cycles and individual differences/preferences can result in less than optimal quality and quantity of sleep. This can have a direct impact on crewmembers' alertness levels. A systematic approach to Fatigue Risk Management can result in significant increases in alertness level and safety.

If not managed properly, pilot fatigue can be a significant problem in modern aviation because of circadian disruptions, long duty periods, unpredictable work hours, and the resulting impact on the quality and quantity of crewmember sleep. A fatigue risk management plan is a series of defined, organizational processes that will assess the impact of fatigue on the operation and how to minimize the potential risks associated with fatigue.

Our plan is multi-layered and requires the partnership efforts of management, crewmembers, and all stakeholders in the operation. Management will be responsible for



FATIGUE RISK MANAGEMENT PLAN

implementing, maintaining, and adhering to the FRMP. Crewmembers are responsible for completing required training, identifying fatigue risks, assessing their own fatigue levels, and reporting any perceived fatigue risks to their safe operation. The goal of the FRMP is to ensure that flight crew members are sufficiently alert so as to operate safely under all circumstances. Reducing the risks associated with fatigue is a shared responsibility.

The FRMP is predictive, proactive, and reactive. The FRMP is predictive in that planned schedules are reviewed using relevant science and experience. Proactive in the sense that we pursue scientific data collection, validate policies that promote alert aircrews and implement new derived policies. Management encourages an open flow of communication with all stakeholders that strengthens our corporate culture, educates and trains aircrews, and investigates and implements various fatigue-fighting methods. The FRMP is reactive as it provides aircrew an environment of open communication to report fatigue in good faith, in an atmosphere free from fear of retribution or retaliation and continuously analyzes Fatigue Events and reports to identify systemic issues. These reports are reviewed weekly by the FERC and Actions are taken to prevent future fatigue risk.

Fatigue in our environment is a physiological state of reduced mental or physical performance capability resulting from lack of sleep. It can reduce an aircrew member's alertness and ability to safely operate an aircraft. There are two main types of fatigue: transient fatigue and cumulative fatigue. Transient fatigue results from a single episode of insufficient sleep. Cumulative fatigue occurs after incomplete recovery from transient fatigue over a period of time and recovery can only occur after more extensive time off including multiple periods of sleep. FAA mandated flight times/duty times are designed to minimize both types of fatigue, but in order to be effective proper sleep must be planned for and taken. Fatigue results from an interaction of sleep loss and the circadian rhythm. The circadian rhythm (24-hour physiological clock) is an individual's sleep/wake cycle, which is influenced by night-day and other environmental cues. Circadian rhythms are disrupted by changes in daily schedules.

The FedEx FRMP has resulted in an organization that continuously strives to improve by reducing potential threats to aircrew alertness, thereby helping to ensure continued safe performance and operation.



FATIGUE RISK MANAGEMENT PLAN

6. Roles and Responsibilities

- a. **Flight Management Responsibilities.** The most important role of management is to continuously encourage a workplace safety culture that allows for open communication and management of fatigue related issues.
 - i. The FRMP is an integral part of FedEx's Flight Operations Safety Management System (SMS). FedEx Flight Operations Management proactively and continuously manages fatigue risk through a process relying on shared responsibility with FedEx crewmembers. The FRMP is a partnership between FedEx, its crewmembers, and the FAA. FedEx understands that there is a potential for fatigue in any airline's operation. FedEx is committed to comprehending, preventing, managing, and mitigating the risks of fatigue to improve operational effectiveness and flight safety.
 - ii. FedEx has developed, and will maintain through its quality driven management process, a comprehensive Fatigue Risk Management System (FRMS) for pilots that is designed to minimize the likelihood that pilots are not alert and fit for duty. The FRMS will apply to all FedEx pilots, and FedEx continues to support an environment where open and honest reporting of fatigue-related events is encouraged.
 - iii. All areas of Flight Operations have a stake in the effectiveness of the FRMP as outlined in the preceding letter from the FedEx Express Chief Executive Officer of Air Operations. FedEx has always been a leader in fatigue research and will continue to improve our knowledge of the risks of fatigue.
 - iv. FedEx will continue to develop, refine, and administer training in fatigue risk management that covers the consequences of fatigue as well as strategies for managing it. This will be done using scientific research on sleep, alertness, circadian rhythm, and fatigue physiology, as well as information received from actual pilot-submitted fatigue reports. The training will also stress the importance of reporting fatigue-related events.
- b. **Crewmember Responsibilities.** The FedEx crewmember actively participates in the FRMP by properly preparing for his trip, taking part in education and training opportunities and reporting fatigue if it nevertheless occurs.
 - i. By making their best effort to obtain adequate rest/sleep in preparation for scheduled activities, FedEx crewmembers can minimize the risks of fatigue-related accidents and injuries. On long-haul augmented flights the Pilot in Command is required to coordinate and communicate the planned in-flight rest scheme (FOM 2.39). This will allow crewmembers to plan for and obtain in-flight rest.
 - ii. The Flight Operations Manual (FOM) stresses that Safety is the most important consideration in all operations (FOM 2.03) and all crewmembers must realize that they have the responsibility to be properly rested for a trip. If circumstances prevent



FATIGUE RISK MANAGEMENT PLAN

this, crewmembers are not pressured to fly and should immediately inform Crew Scheduling (FOM 2.05). Crewmembers should have no fear of retribution or retaliation for making a good faith fatigue report. FedEx will ensure that all crewmembers are aware of the fatigue reporting system and that any submitted reports will remain confidential.

- iii. Fatigue education and training enhances crewmembers' knowledge of fatigue and results in their ability to self-assess their fitness for work. Crewmembers will ensure that all basic indoctrination training and recurrent training is completed and understood. Active participation will ensure a greater understanding of the dangers of fatigue. Training material is reviewed annually to ensure subject matter is up to date.
- iv. A better understanding of fatigue will allow crewmembers to combat, recognize and ultimately report fatigue risk events to flight management. Crewmembers are the last line of defense and will not be disciplined for making good faith fatigue reports. All crewmembers will understand the procedures for reporting fatigued and will be encouraged to make the appropriate reports. Part of the reporting process will be a brief history of the crewmember's activities and flight schedule. This will allow the Company to gather pertinent data and give crewmembers insight on how they may better understand their individual fatigue risks and potential fatigue mitigation strategies.

7. Components of FRMP

The FRMP has numerous components and contributing members. The goal is to provide a culture and environment where the potential for fatigue to impact safety is minimized. This integrated set of components, policies, and practices allows FedEx to monitor and improve our approach to fatigue mitigation in all aspects of our flight operation.

- a. **Education and Training** – All flight crewmembers will be trained to understand the purpose of the FRMP and their responsibilities to be active participants in understanding and mitigating fatigue risk. The goal of the education/training curriculum is to help crewmembers identify and assess fatigue risk in both themselves and their fellow crewmembers.
 - i. Training starts with new hires to the FedEx operation and takes place during basic Company indoctrination. This course of study educates crewmembers on the basics of sleep, transient and cumulative fatigue, circadian rhythm, and fatigue symptoms.



FATIGUE RISK MANAGEMENT PLAN

This course lays a foundation for continued recurrent training and greater knowledge of fatigue risk issues. Records kept include dates/names/subjects covered. FedEx has enlisted the expertise of fatigue specialists in the development of its training program and will continue to solicit these experts' input. Organizational and individual responsibilities are covered during basic indoctrination fatigue training, as well as instruction on FAA flight duty and rest regulatory requirements.

- ii. Crewmembers are required to complete recurrent training on a tri-annual cycle, to build upon the knowledge learned previously. Recurrent training focuses on sleep disorder identification training and fatigue mitigation strategies. Simulator pre-briefs for line-oriented flight training sessions devote time to promote an open discussion of individual fatigue experiences.
 - iii. FedEx works with its scientific advisors to ensure that the FRMP Working Group has up to date, scientific information on fatigue; and encourages crewmembers to discuss potential issues with their AMEs during their FAA-required medical examinations. This extra layer of protection outside of the Company emphasizing the human factors of fatigue increases crewmembers' awareness.
- b. Scheduling Improvement Group** – FedEx has established the Scheduling Improvement Group (SIG) to assist with the construction of monthly crewmember schedules. The SIG is comprised of representatives from Flight Operations Management and the Air Line Pilots Association (ALPA). The SIG provides input to the construction of trip pairings and monthly lines in compliance with collective bargaining agreement provisions and aims to ensure that schedules are constructed with appropriate consideration of cumulative and transient fatigue risk while still meeting the operational needs of the organization. The SIG will have access to FedEx AlertSafe™ Analyze, which provides:
- I. A weight-based risk decision tree to analyze crew pairings for a given solution looking at operational experience fatigue factors not captured in biomathematical models
 - II. A means to identify select pairings and apply appropriate risk cards to the flight sequence or duty or layover to communicate to the FERC (Fatigue Event Review Committee)
 - III. A means to manage and configure Pilot generated risk rules as dictated by their operational experience of the company
 - IV. A means to apply and compute pre-configured risk parameters and score a cumulative risk for a solution
 - V. A means to compare and contrast multiple solutions including historical (previous solutions).



FATIGUE RISK MANAGEMENT PLAN

- VI. An ability to view the pairing using a Fatigue Model
 - a) This Bio-mathematic model predicts human alertness and performance based on alertness cycles derived from existing mathematical models of sleep/wake patterns to guide pairing construction.
 - b) This model along with crew experience is used as both a scheduling tool to produce 'fatigue friendly' pairings/lines and in post-schedule analysis to build a database for further fatigue research. This information could potentially be used by management during periods of schedule disruption (weather events, ground-holding delays, etc.) to maximize roster solutions.
 - c) The model also will provide a means to identify other proactive areas of fatigue risk mitigation such as temporary sleep rooms and relief pilot flight augmentation.
 - d) The model could also be used to study the effectiveness of other existing or proposed fatigue mitigations (e.g., in-flight napping, value of relief pilots, etc.).
 - e) Future enhancements to the model may enable crewmembers to personalize the modeling tool to educate themselves and provide prescriptive sleep solutions based on their individual behaviors.
 - f) The model will evolve as validation occurs. Data collected through human performance data collection will be analyzed by sleep scientists, and the conclusions drawn by our scientific research partners will be factored into the model to continually refine and improve the accuracy of the model.
- VII. A means to apply a hybrid approach to fatigue risk management
- VIII. A discussion board
- IX. Interactive reports and metric tracking

The SIG considers the type of operation (day/night – domestic/international) as well as the intervening rest periods to determine the acceptability of a proposed pairing/monthly line. The SIG is responsible for formally disputing pairings that are inconsistent with the goals and purposes of the CBA including the FRMP/FRMS administered through the FRMG. It determines the appropriate dispute resolution track, including the FRMG track.



FATIGUE RISK MANAGEMENT PLAN

c. Schedule Mitigations

I. **Crew Rest Facilities** – FedEx provides rest facilities for crewmembers while on layovers and in major hub flight operations areas.

- a) Layover hotels are chosen by a trained 'hotel' staff and approved by both flight management and ALPA. These hotels are of excellent quality and are screened to ensure that they provide opportunities for uninterrupted sleep during all layovers. By providing crews with trip layover information prior to commencing the trip crews can plan rest periods in advance and be confident in their ability to take advantage of the sleep opportunities provided in the layover hotels.
- b) Flight Operations locations with scheduled turn times greater than 2:00 hours have crew rooms which provide a place for crewmembers to rest during short layovers. These areas are isolated and have amenities for pilots to rest. Additionally, major FedEx hubs (MEM, IND, AFW, OAK, CDG, GSO, CAN*) have dedicated sleep rooms for use during hub turns. These rooms are close to the flight operations areas and are specifically designed to be environmentally conducive to sleep. The FRMP has developed standards and measures them periodically.
- c) For scheduled turns exceeding 4:00 hours crewmembers are provided company-paid rooms at nearby hotels.
- d) Alert calls are provided to crewmembers in layover hotels operating international flights. This allows crewmembers to continue sleeping if there is a minor adjustment to their expected show time for an international flight segment.

**As a result of Guangzhou, China Centers for Disease Control COVID-19 public health safety requirements, CAN sleep rooms are currently inaccessible. Pairing design has been altered to mitigate fatigue risk until such time as the rooms are available for use.*

II. **Wake-up call system in hubs with large volume**

At large sort facilities (MEM, IND, AFW, CAN*, CDG) FedEx pilots can participate in an automated wake-up call program that alerts the crewmembers at a designated time before their flight. This program delays the wake-up call if the sort is delayed during the pilots' hub-turn. This program removes the responsibility of the pilot to wake up on his own, thus reducing sleep anxiety and providing a more meaningful rest opportunity.



FATIGUE RISK MANAGEMENT PLAN

- i. **See above note regarding inaccessible CAN sleep rooms.* **In-flight Countermeasures** – FedEx long-haul airplanes are equipped with crew rest facilities outside of the flight deck to provide for FAA approved in-flight rest periods. The facilities on airplanes with crew rest areas are temperature, light, and sound controlled with a “lie flat” sleep area.
- III. **Improved Reserve System** – In the past, FedEx had a continuous reserve system but has since revised the system to maximize crew alertness and safety. FedEx now has 5 different reserve periods available. These periods are staggered around the clock to minimize the fatigue risk and allow crewmembers to plan and adjust their sleep cycle prior to coming on duty.
- IV. **Fitness Center** – In addition to providing sleep quarters for crews between flights, FedEx has a fitness center in the MEM Air Operations Center and one is being planned for the new IND hub flight operations building that is projected to open in CY 2022. The short-term benefit of a fitness center is the immediate increase in alertness. The long-term benefits include the overall health and well-being of crewmembers.
- V. **Pairing Review Process** – Both the Company and ALPA perform multiple reviews of trip pairings prior to monthly bid pack publication.
 - i. Preliminary pairings are released to the FERC and PSIT two weeks prior to bid pack publication. Once the pairings are released, both the FERC and PSIT scrub the pairings using FedEx AlertSafe™ (internally developed software) and SAFTE-FAST (3rd party software used by ALPA) looking for fatiguing pairings. After this review, pairing change recommendations are made to Crew Resource Planning prior to final pairings being released for line building.
 - ii. A CBA defined Fatigue Related pairing dispute process (FRMG Track)
 - iii. FERC Pairing Build Parameters have been created after analyzing sequences disputed under the CBA defined FRMG Track. Pairing impact on pilot alertness through fatigue modeling software, fatigue science doctrine, and/or human performance data collection were studied to create these parameters. Other data used to develop these parameters is as follows:
 - 1. FERC Preliminary Pairing Review Process
 - 2. Actual fatigue events and reports
 - 3. FRMG track disputes (CBA 25.BB.E.5)
 - 4. Human performance data collection results



FATIGUE RISK MANAGEMENT PLAN

5. Pilot Scheduling Improvement Team (PSIT) input

- d. Fatigue Reporting** – Open communication and good faith self-reporting are the last lines of defense against a crewmember operating a trip in a fatigued condition. Crewmember self-reporting is highly encouraged. FedEx will evaluate every fatigue report using the FERC (Fatigue Event Review Committee) process (see below) to identify causes, trends, and areas for improvement and recommend solutions to the FRMG. The FERC is made up of 2 FedEx ALPA representatives and 2 FedEx Management representatives who also serve on the DCSC (Data Collection Steering Committee). The DCSC in conjunction with the Primary Research Partner and the Scientific Advisory Committee (SAC) is a group established through the CBA to administer data collection efforts. The SAC provides advice and guidance to the DCSC on scientific questions/issues for data collection.
- i. Reporting of a fatigued-related risk due to insufficient sleep or as the result of fatigued-related symptoms is required by the FOM (Sec. 2.05) and by the collective bargaining agreement (Sec. 12.A.9). Crewmembers contact Crew Scheduling to self-report that they are “fatigued” and unsafe to fly. They are not pressured to fly. Data is collected from crew members in the form of a look-back schedule review and this information is provided to the FERC. This data is analyzed by the FERC and can help prevent future similar occurrences.
 - ii. Safety Reports can be anonymously submitted by crewmembers (and their participation is highly encouraged at all levels) if they believe that fatigue was a contributing factor in a flight error or incident. If a crewmember completes a flight without incident but feels that fatigue was a factor impacting his performance during the flight, he may complete a report and pertinent data will be collected. This report can help the FRMP Working Group prevent future incidents. FedEx AlertSafe™ Event (web-based application tool) is the system currently in place to collect fatigue event reports.
 - iii. Since both types of reporting rely heavily on the good faith of the crewforce, Safety Reports will be anonymous, de-identified, and non-punitive. These incidents will be part of a learning experience for the organization and other crewmembers, rather than as an incident that can affect an employee’s employment status. Data and information received from any fatigue related Safety Report will be incorporated into the FedEx sleep model to update the model with current/viable information.



FATIGUE RISK MANAGEMENT PLAN

1.

e. Fatigue Event Review Committee

FERC



FATIGUE RISK MANAGEMENT PLAN

sequence. Additionally, the Company's collective bargaining agreement contains specific fatigue risk mitigation provisions for crewmembers while they are deadheading prior to and during flight operations on both domestic and international trips.

8. Flight Time /Duty Time Limitations.

The FAA extensively regulates crew complements, flight, and duty times to limit or eliminate performance decrements that are known to arise from sleep loss and circadian disruptions. FedEx goes beyond the requirements of the FAA regulations to enhance the alertness and performance of its crews.

- a. The FARs allow for a 16-hour crew duty period.
- b. FedEx uses a phased approach to crew duty periods. The 'scheduling' limit is broken down into day, night, critical, and international limits. The 'operational' limit provides flexibility for extended operations beyond the 'scheduling' limit but below the FAR limit. There are also blend transitions between the domestic day, night, and critical duty period types.
- c. FedEx has a pairing construction rest scheme that provides more rest than the minimum period required by the FARs of 8 hours. The FedEx crew planning limitations for a domestic minimum scheduled rest period is 10 hours, 15 minutes and for an international minimum scheduled rest period is 14 hours.

DOMESTIC DUTY PERIODS

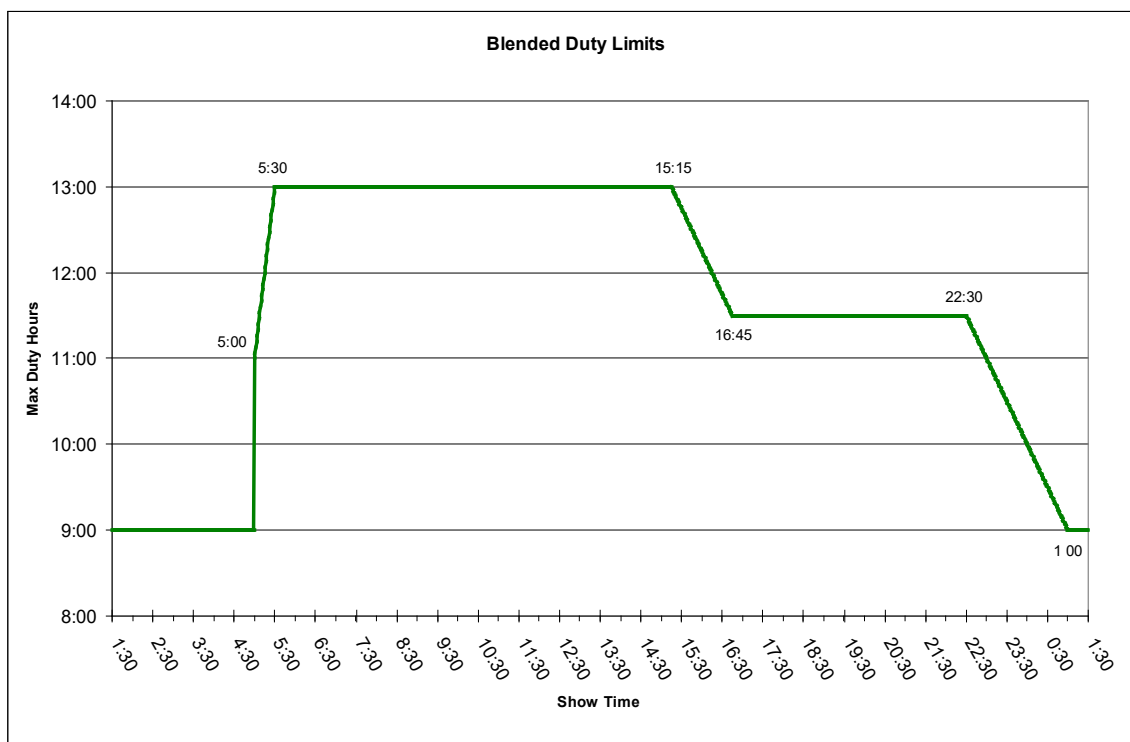
CONTRACT DUTY TIMES	LOCAL	CST (Z)	CDT (Z)
CRITICAL DUTY PERIOD	0100-0459 LBT	0700-1059Z	0600-0959Z
DAY DUTY PERIOD	0500-1559 LBT	1100-2159Z	1000-2059Z
NIGHT DUTY PERIOD	1600-0059 LBT	2200-0659Z	2100-0559Z

DOMESTIC ON DUTY LIMITATIONS

TYPE OF DUTY	SCHEDULED	OPERATIONAL	FAR
CRITICAL DUTY	9:00	10:30	16:00
DAY DUTY	13:00	14:30	16:00
*OPTIONAL ASSIGNMENT	13:30	15:00	16:00
NIGHT DUTY	11:30	13:00	16:00
*OPTIONAL ASSIGNMENT	13:30	15:00	16:00
*Optional Assignment Duty Times apply to Hub Turns ONLY.			



FATIGUE RISK MANAGEMENT PLAN



INTERNATIONAL GRID					
Inbound Flight Segment	Crew Complement	Sleep State	Scheduled Duty	Number of Landings	Block Hours
TZD of 5 or more	2 Pilots	Reset	13:30	3	8
		Reset	12:00	4	
		Adjusted	10:00	2	
		Not Adjusted	8:30	2	
	2 Pilots + RFO	Reset	13:30	2	12
		Adjusted	12:30	2	



FATIGUE RISK MANAGEMENT PLAN

	2 Full Crews	Not Adjusted	10:00	2	16
		Reset	18:00	*1	
		Adjusted	16:00	*1	
		Not Adjusted	16:00	1	
TZD of less than 5	2 Pilots	Reset/Adjusted	13:30	3	8
		Reset/Adjusted	12:00	4	
		Not Adjusted	12:00	4	
	2 Pilots + RFO	Reset/Adjusted	13:30	2	12
		Not Adjusted	10:00	2	
	2 Full Crews	Reset/Adjusted	18:00	*1	16
		Not Adjusted	16:00	1	

*Reset layover = 32 hours

*Adjusted layover = 18 hours

*Not adjusted layover = <18 hours

9. Review and Improvement Process

The potential for various fatigue-related risks is likely to change with operational demands, cultural changes in the organization, and employee demographics. It is important that the FRMP be continually reviewed and improved to ensure that it is operating effectively.

- a. The FRMP Working Group will annually review the following to ensure it is appropriate, effective, and properly presented:
 - i. FRMP
 - ii. Education /Training
 - iii. Pilot Reports and Incident investigations/feedback
 - iv. Data Analysis
 - v. Scientific upgrades/information
 - vi. Suggested changes



FATIGUE RISK MANAGEMENT PLAN

- b. The FRMP Working Group will report its findings on a quarterly basis to the System Chief Pilot.

10. Ops Spec – A317

This Fatigue Risk Management Plan is authorized by the FAA under OpsSpec A317. The maximum duration of the OpsSpec is 24 months. It will be reviewed at least every 24 months. Any amendment to the plan will require the reissuance of OpsSpec A317.

11. Conclusion

Managing and mitigating fatigue risk in aviation operations is a complex task due to human system variability. Clearly, there is no single policy or countermeasure that will eliminate the potential for fatigue risk in flight operations. Flight operations can lead to fatigue, disruption of sleep and circadian rhythms, and degradation of alertness and performance. Acknowledging and managing these challenges promotes safety and performance in flight operations. The information in this FRMP is provided as one element in the multi-layered approach to fatigue management. Participation and open communications from all areas of the operation (management, crewmembers, scheduling, ALPA, etc.) are required to have an organization culture that is dedicated to eliminating the risks of fatigue. FedEx is committed to conducting the safest possible flight operations.