

DCA22LA126

OPERATIONAL FACTORS/HUMAN PERFORMANCE

Attachment 13: Fatigue Risk Management Group Newsletter (Post Incident)



FATIGUE REPORTS



DATA COLLECTION UPDATE



FACILITY UPDATE

- Overview of Fatigue Reports
- Data Collection Update
- Facility Update

MEET THE FRMG

Fatigue Risk Management Working Group



FedEx
Express

The Fatigue Risk Management Working Group (FRMG)

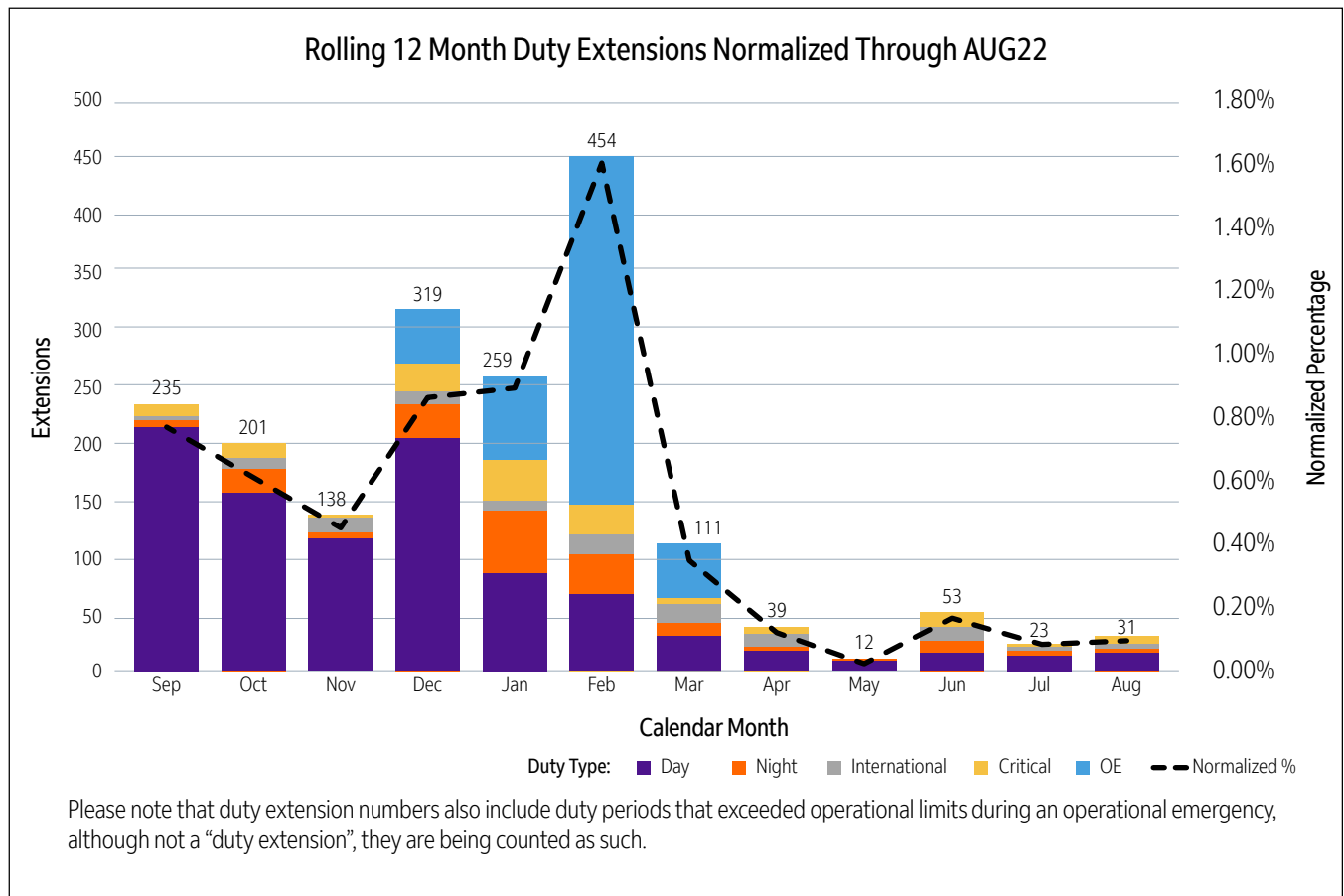
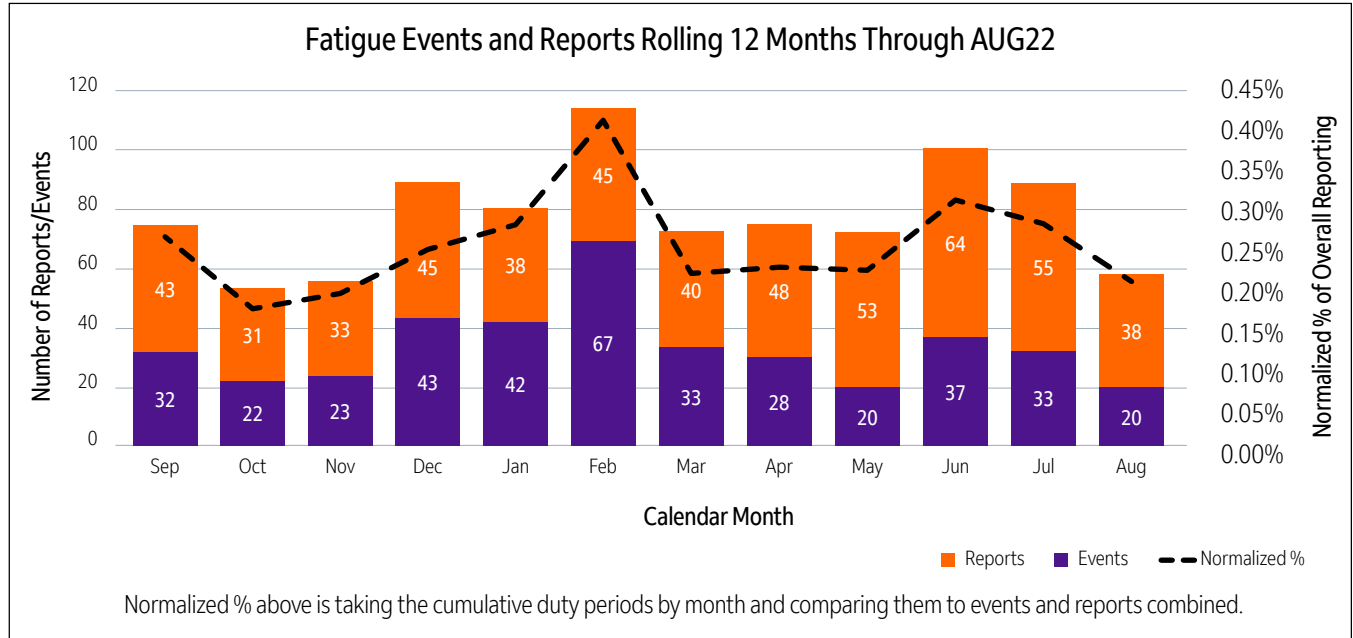
consists of stakeholders from the following groups: ALPA, Crew Resource Planning (CRP), Crew Resource Scheduling (CRS), FedEx Legal, Flight Duty Officer, Flight Safety, Flight Training, Global Operations Control (GOC), Scheduling Improvement Group (SIG), and the FAA.

This group meets quarterly to analyze scheduling data, review fatigue reports, recommend changes to the Fatigue Risk Management Plan (FRMP), and evaluate recommended improvements to the FRMP. The FRMG is publishing a quarterly newsletter to inform the crew force of the results of their meetings.

OCT
2022

Fatigue Reporting

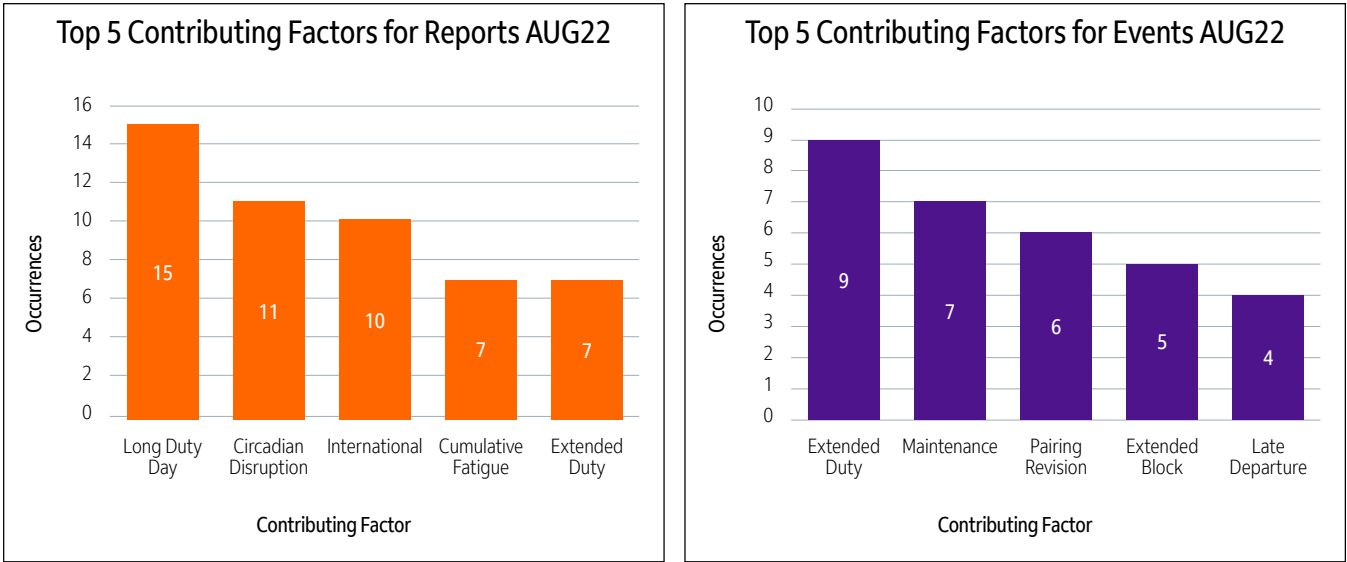
Fatigue reporting continues to be one of the key inputs in driving our Fatigue Risk Management decision making as an airline. Please provide feedback where applicable via the [Fatigue Event Management](#) system. A fatigue event is when a pilot was unable to complete a duty period due to fatigue. A fatigue report is a voluntary advisory report submitted by a pilot that experienced fatigue during a duty period.



(continued)

Fatigue Reporting *(continued)*

The contributing factors shown below are the primary drivers of fatigue reports (advisory), and fatigue events (could not complete duty due to fatigue). These factors are selected by the Fatigue Risk Management group after a multi-factor review of each report.



Data Collection

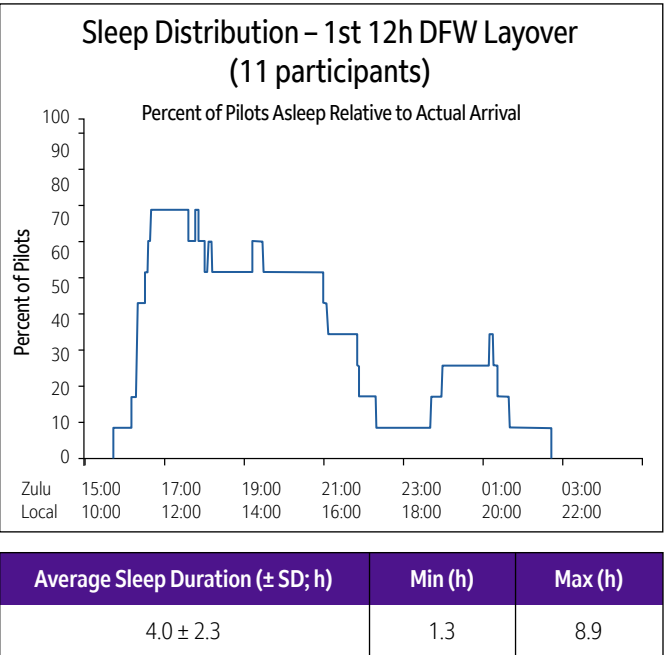
There are currently four data collection efforts which are ongoing:

MEM/OAK/IND67: GSO-FLL-DFW critical period (12 Hour Layover) DFW-GSO

The Fatigue Event Review Committee (FERC) is conducting a study of sleep during the 12:20 day layover following a multiple leg duty period, and into a night/critical duty operation. A preliminary analysis has been conducted, and the final study kits are being collected. A future article will discuss the findings.

Below are two charts which show the preliminary findings of this data collection effort. A final analysis by sleep scientists will be produced once all valid datasets are received.

R	D	Flight	Org-Dst	Eq	Dprt	Arrv	Scheduled	Lyovr	Duty
R	Flight	H	Date				Blok	Turn	
==Local==									
AA1940 X			MEM-DFW		0600	0738	138	1517	1347 308
1058			DFW-GSO	67	2255	0211	216	2609	2439 346
1067			GSO-FLL	67	0420	0608	148	100	
1067			FLL-DFW	67	0708	0905	257	1350	1220 715
1058			DFW-GSO	67	2255	0211	216	2609	2439 346
1067			GSO-FLL	67	0420	0608	148	100	
1067			FLL-DFW	67	0708	0905	257	1000	0830 715
AA2928 X			DFW-MEM		1905	2036	131		

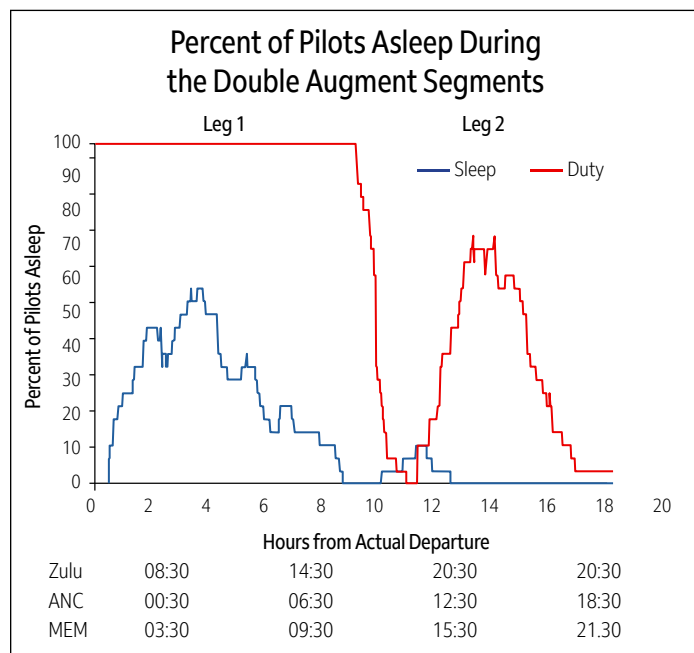


(continued)

Data Collection *(continued)*

MEM77 - Two-leg long/short double augmented sequences

- The FERC is engaged in a continual data collection effort, on two-leg, high block, double augmented long duty day ending with a short-leg.
- Below are preliminary findings regarding in-flight sleep throughout the duty period. The findings below contain 26 datasets (8 CAP, 11 FO, 7 RFO), and one repeat participant.



	Mean ($\pm$ SD; h)	Min – Max (h)
Inflight Sleep Duration	2.4 $\pm$ 1.2	0 – 4.5
Time until inflight sleep	2.2 $\pm$ 1.6	0 – 5.3
Time since inflight sleep (relative to leg 2 actual departure)	7.1 $\pm$ 2.3	0 – 12.0
Turn Sleep (n=3)	1.3 $\pm$ 0.6	0.5 – 1.7

M57COD - Continuous overnight duty type design, with 8:10 turn in IND during the window of circadian low.

- This collection effort is in the initial stages and no preliminary findings are available at this time.

R	D	Flight	Org-Dst	Eq	Dprt	Arrv	Scheduled	Lyovr	Duty
R	Flight	H					Blok	Turn	
			==Local==						
	AA2552 X		MEM-CLT		1845	2129	144	101	
	AA1260 X		CLT-CPH		2230	2350	120	30	
	GT9999 X		CPH-LCK		0020	0050	30	2302	2202 605
	1615		LCK-IND	57	2352	0045	53	810	
	2788		IND-LCK	57	0855	0949	54	1403	1233 1127
	1615		LCK-IND	57	2352	0045	53	810	
	2788		IND-LCK	57	0855	0949	54	1403	1233 1127
	1615		LCK-IND	57	2352	0045	53	810	
	2788		IND-LCK	57	0855	0949	54	1403	1233 1127
	1615		LCK-IND	57	2352	0045	53	810	
	2788		IND-LCK	57	0855	0949	54	858	0828 1127
	GT9999 X		LCK-CPH		1847	1917	30	100	
	AA1494 X		CPH-CLT		2017	2145	128	105	
	AA2404 X		CLT-MEM		2250	2341	151		624

MEM67 – BQN-SJO-MEM; 7+ hours of block with a critical departure

- This effort is in the beginning stages with no preliminary findings at this time.

R	D	Flight	Org-Dst	Eq	Dprt	Arrv	Scheduled	Lyovr	Duty
R	Flight	H					Blok	Turn	
			==Local==						
	0257		MEM-BQN	67	1440	1937	357	3148	3018 527
	0258		BQN-SJO	67	0325	0435	310	120	
	0258		SJO-MEM	67	0555	1104	409		1009



If you are invited to participate in a data collection effort, please accept. Your assistance allows the FERC to make science-based scheduling decisions. For those crew members who have participated, thank you for your support.

FedEx Pilot Fatigue Guide

Work is currently underway to publish a comprehensive fatigue education source document for pilots and contains the following sections:

- Organizational Overview
- Fatigue Education
- FERC Process
- Pairing Design and System Form
- Fatigue Mitigations
- How to Call in Fatigued
- Fatigue Event Outcomes
- Fatigue Report (Advisory)
- Human Performance Data Collection
- Concepts and Terms
- Resources

Once completed, this will be available to all FedEx pilots via the Fatigue Risk Management page on PFC, as well as the Content Locker on your iPad.

Fatigue Education Initiatives

The Fatigue Risk Management Group is creating training content for all non-pilot fatigue risk management stakeholders. This training is aimed at making stakeholders aware of their role in reducing and mitigating crew member fatigue where applicable. Some of these groups include, but are not limited to: :

- Crew Resource Scheduling
- Crew Resource Planning
- Global Operations Control

Systemwide Facility Updates

New IND Facility

- 136 sleep rooms are a part of the new Flight Operations facility in IND. These rooms have proxy access and are only accessible via your FedEx ID badge when a room is reserved in CrewNav.

OAK Sleep Rooms

- Construction on 12 new sleep rooms is scheduled to begin soon.
- New furniture will be in the crew lounge area.

ANC Rest Facility

- Plans are in work to refurbish the crew area in ANC Flight Operations. These plans include the creation of a rest and relaxation area for crewmembers. Initial discussions with facilities have taken place.

MEM Sleep Room Expansion

- Initial discussions about future sleep room expansions in MEM have begun. This is preliminary, and more information will be provided in the coming months.

EWR Expansion

- A project is in works to relocate EWR Flight Operations to a new area. This relocation will include areas for flight planning, break room, sleep rooms and a lounge.

777 Mattress Replacement

- The first two new mattresses are scheduled to be installed during an OCT maintenance check. For those crew members who provided feedback on the initial prototypes, thank you.

(continued)

Systemwide Facility Updates *(continued)*

Recliners

The following cities have had new recliners ordered:

- SAT 3
- JFK 3
- SLC 3
- SFO 3
- CLE 3
- MEM 35, which will be placed in the theatre room



Hub Turn Sleep

If you are operating a duty period in which fatigue mitigations are available (sleep room, recliners, hotel during turn) the Fatigue Risk Management Group recommends that you utilize those mitigations, particularly on the AM side. The fatigue risk management software and biomathematical models used, predict a nap occurring for hub turns, if there is a sleep room or hotel rooms provided and the opportunity is greater than 2.5 hours. Decisions regarding pairing design and associated predicted pilot alertness levels are being made based on the assumption that a nap is occurring in these situations.

In MEM if CrewNav is showing no rooms available, please check with Flight Coordination. There may be rooms available (i.e. airport standby did not check in), or they are able to put you on a waiting list for when someone checks out of a room. When there is a wait list, wait times have been averaging 5-10 minutes. If you do not wish to wait, there are recliners available in the large rooms just beyond the beverage station as well as the old theater room. Please attempt to take advantage of these mitigations during a hub turn.



If you have any questions or concerns as it pertains to fatigue risk management please feel free to reach out to the FERC at FERC@corp.ds.fedex.com