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March 30, 2014

John W. Lovell
Hearing Officer, NTSB Investigative Hearing - Flight 1354
Senior Aviation Accident Investigator
Major Investigations Division (AS-10)
National Transportation Safety Board
490 L'Enfant Plaza East, S.W., Room 5349
Washington DC, 20594-0003

RE: Request for Additional Information Concerning 14 CFR Part 117

Dear Mr. Lovell:

During the February 20 Investigative Hearing, National Transportation Safety Board (NTSB) Member Robert Sumwalt directed questions concerning 14 CFR Part 117 to UPS witnesses. In particular, he asked for an explanation of why UPS does not voluntarily comply with Part 117 when by statute and regulation it is not required to do so. The following response is our supplement to the hearing record and is intended to address Member Sumwalt's question. The reasons UPS has developed its own flight and duty time and fatigue risk management strategies include, but are not limited to, the following:

- UPS believes the FAA reached the correct conclusion that there are important differences between passenger and cargo airlines with respect to flight and duty time and fatigue mitigation when it decided to exclude cargo carriers from Part 117's coverage. One size does not fit all, nor does "one level of safety" require identical rules. UPS believes the same high level of safety can be achieved through different means and tailored processes.

- UPS believes that Part 117 would not enhance safety for cargo carriers, yet would impose high and unnecessary costs.

- UPS has been a pioneer in fatigue management techniques, going above and beyond the regulations where appropriate. These measures are tailored to our unique operating environment.

- The collective bargaining agreement, negotiated between UPS and the Independent Pilots Association (IPA), contains a detailed scheduling article on flight, duty, and rest time. UPS believes the collective bargaining process and other collaborations with the IPA have enhanced UPS's safe and effective approach to these issues.

- UPS will continue to be a leader in fatigue management, and UPS will continue to partner with the IPA on these efforts as appropriate.

We trust this responds directly to Member Sumwalt's request. We continue in our efforts to support the ongoing investigation by the NTSB and welcome any additional requests from the NTSB for assistance or additional information.

Sincerely,

UNITED PARCEL SERVICE CO.

[redacted]
Houston Mills
Director of Safety

1400 North Hurstbourne Parkway
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March 24, 2014

John W. Lovell
Hearing Officer, NTSB Investigative Hearing - Flight 1354
Senior Aviation Accident Investigator
Major Investigations Division (AS-10)
National Transportation Safety Board
490 L'Enfant Plaza East, S.W., Room 5349
Washington DC, 20594-0003

RE: Request for Additional Information – Supplement to Hearing Docket

Dear Mr. Lovell:

During the February 20 Investigative Hearing, UPS was asked to supplement the record with additional information about certain aspects of UPS operations. The following information is provided in response to those requests.

A. Rate of fatigue calls – "rate" versus "number" of A300 fleet fatigue calls.

The A300 is a domestic operating fleet. The bulk of this fleet's flying activity occurs at night. A typical night schedule would begin at 2200 local domicile time and end at approximately 0500 local domicile time. An A300 pilot flies an average of 2.5 hours per night and experiences a flight duty period of 7.1 hours.

The statistics below include actual hours flown. Duty days consider the impact of vacation, training, conflict or other adjustments to actual activities.

All UPS Pilots are guaranteed a minimum of 75 hours of pay credit per 28 day pay period. UPS A-300 Pilots bid an average of 36 – 38 hours of block hours per 28 day pay period.

A300 Block and Duty Statistics			
	Per Duty Period	Per Pay Period	Per Year
Duty Hours	7.1	71	827.9
Block Hours	2.5	25.5	297.4
Rest Hours	14.4	126	1467.4
Duties		10	116.9
TAFB Hours		197.5	2301.1

Block Hours= Flight time + taxi out time (from brake release) + taxi in time (until brake set for parking)
TAFB =Time Away From Base (or home domicile)
Duties = Number of duty periods

2013 A300 Fatigue Data			
	Fatigue Calls	Crew Members	Rate of fatigue calls
JAN	5	390	1.28%
FEB	3	383	0.78%
MAR	1	383	0.26%
APR	2	381	0.52%
MAY	2	381	0.52%
JUN	2	374	0.53%
JUL	5	373	1.34%
AUG	7	373	1.88%
SEP	0	365	0.00%
OCT	4	365	1.10%
NOV	1	350	0.29%
DEC	6	362	1.66%

B. Shared responsibilities of UPS and IPA regarding fatigue.

Fatigue falls under the broad category of "Fitness for Duty". With regards to fatigue, shared responsibilities regarding fatigue risk management and mitigation are established in the UPS FOM O5.04.01.03 Policy – Joint Responsibility (Exhibit 14-E).

Below is an excerpt:

> UPS Flight Operations acknowledges the presence of fatigue threats in our operation and the risk it presents to flight safety. UPS is committed to managing fatigue threats, and preventing and mitigating fatigue risks in order to ensure a safe operation. Fatigue prevention and mitigating its effects are joint responsibilities of UPS and UPS crewmembers.
>
> **COMPANY RESPONSIBILITY**
>
> UPS schedules are built in accordance with all applicable 14 CFRs and the UPS/IPA Collective Bargaining Agreement. Data is collected from actual operations and analyzed to identify fatigue trends or threats associated with schedules, pairings, or trips. Changes are then made to mitigate identified risks.
>
> Crew Scheduling promptly removes any crewmember from duty when that crewmember reports, or it is deemed, they are not able to perform assigned duties due to fatigue.
>
> **CREWMEMBER RESPONSIBILITY**
>
> **Crewmembers are responsible to report for duty well rested. Plan layovers in a way to ensure you are rested for subsequent duty periods and, as best as possible, fully and appropriately utilize opportunities to obtain and manage sleep. Crewmembers, whether living in domicile or commuting, must ensure they have adequate rest prior to reporting for duty. There is always a potential for unforeseen delays or circumstances such as tail swaps, mechanical difficulties, weather, reschedules, revisions, etc.**

Crewmembers that report they are fatigued are **immediately** removed from flight duty by UPS schedulers without question or hesitation.

Also included in the FOM, Volume 1, 05.03.02 is the Flight Crew Alertness Guide (Exhibit 14-F). This document was written in collaboration with a nationally recognized fatigue and alertness expert. The guide provides practical tips, best practices, and aircrew experiences regarding the best ways to utilize rest periods to maximize sleep opportunities prior to reporting for flight duty.

Specific fatigue training has been incorporated into the following established FAA approved UPS courses: Basic Indoctrination Crew Resource Management, Flight Crew Factors Workshop, and annually in Recurrent Training (CQ) for all crew members (Exhibit 20-J). Training is also specifically provided to new captains in the UPS New Captain Command Course. Additionally, fatigue training is provided annually to Flight Dispatchers, Crew Schedulers, and Senior Airline Leadership.

UPS remains committed to providing the safest schedules possible. UPS/IPA collective bargaining has approved specific boards/working groups/and committees that meet to address concerns directly and indirectly about schedules, provide information, and recommend solutions to UPS.

The Fatigue Working Group (FWG) – a group established to meet monthly for two specific purposes:

1. To review fatigue events where the crew member has initially been determined to be responsible for the fatigue event.
2. To present information from the IPA that can prompt a risk analysis of specific flights and pairings by the Fatigue Safety Action Group (SAG).

The Schedule Advisory Board (SAB) – a group established to meet monthly for the specific purpose of discussing pairings that have been built by crew scheduling. The IPA is provided a copy of the bid packages before they are published for the crewmembers, and the SAB can and does request changes to specific schedules before publication.

The Crew Resource Management (CRM) Advisory Board – a group established to meet monthly to review and develop CRM content for inclusion into UPS CRM training programs. IPA representatives play an integral role in development and instruction of UPS CRM training which includes "Fatigue Management".

C. "What's next for fatigue management and SMS at UPS: challenges, outlook, and where are the gaps."

Philosophy of the Fatigue Safety Action Group:

Safety is a core value and an essential part of UPS culture, and fatigue risk management remains an essential part of that safety culture. We at UPS are committed to the highest standards of safety performance possible. UPS Flight Operations acknowledges the presence of fatigue in our operations and the risk it can present to flight safety. UPS is committed to preventing, managing and mitigating fatigue risks. Fatigue prevention and mitigating the effects of fatigue is the joint responsibility of UPS and UPS crewmembers. Schedules are built in accordance with all applicable Code of Federal Regulations (CFR) provisions and the UPS/IPA Collective Bargaining Agreement. Also, schedules are analyzed and compared with data collected from actual operations to identify trends or risks associated with schedules, pairings, or trips. When necessary, changes are made to mitigate risk.

An essential component of this process is that UPS promptly removes any crewmember from duty when that crewmember is deemed or reports they are not fit for duty due to fatigue.

Structure of SMS:

UPS is rapidly advancing an SMS program. SMS is a comprehensive, risk-based, process-oriented approach to managing safety as a core business function within an organization. SMS is built upon four basic pillars of safety management as described below:

1. **Policy**: Management's vehicle to communicate its intentions and commitment to safe operations and continuous improvement. Management supports SMS by setting the safety standards and policies, encouraging participation in the SMS

process, facilitating the flow of information, and supporting safety objectives by allocating the required resources.

2. **Safety Risk Management (SRM)**: SRM applies a pre-defined problem-solving methodology to the identification and management of hazards inherent within UPS Airline operations. SRM-provides an understanding of the critical characteristics of systems and operational environments and then applies this knowledge to identify hazards, analyze and assess risk, and design controls throughout the entire scope of an operation and lifecycle of a system.

3. **Safety Assurance (SA)**: The SA pillar of SMS includes continuous monitoring, internal auditing, external auditing, investigation, employee feedback and safety oversight. SA aims to ensure that the activities, plans, and actions taken to improve safety are implemented and effective.

4. **Safety Promotion**: The elements related to safety promotion are intended to support efforts in developing and maintaining a strong safety culture. An SMS is most effective when it takes hold in an organization and is internalized as a positive safety culture. Safety promotion provides tools to ensure that safety information and understanding is transferred throughout the organization, and that everyone is made aware of the hazards and risks associated with particular areas of operation.

The Four Pillars of SMS are an integral part of the philosophy of the Fatigue Safety Action Group. In looking at Safety Policy, the Fatigue Safety Action Group acts upon reports of potential fatigue in the form of Event Reports, requests from the Aviation Safety Action Program (ASAP) Event Review Committee (ERC), Fatigue Working Group (FWG), Scheduling Advisory Board (SAB) or any other data source for events that may be attributed wholly or in part to fatigue.

As an essential element of UPS's Safety Risk Management (SRM), the Fatigue SAG identifies hazards through risk management documentation. In doing so, the Fatigue SAG identifies risks and manages the risk processes by ensuring fatigue risk controls and mitigation strategies are identified. Once this occurs, a risk assessment is performed and a mitigation strategy is established.

Safety Assurance continues to monitor the performance of the risk mitigation strategy to determine if the activities or actions are effective through feedback and continuous loop monitoring.

Safety Promotion exists throughout the entire Fatigue Risk Management program. Communication occurs throughout every stage of the process and feedback is given through various channels.

Moving forward UPS intends to use training programs and active communications to reinforce and emphasize the overall SMS and Fatigue Risk Management process to our pilots.

D. Data (e.g., surveys and collection of information) on attitudes and perceptions of trends in fatigue including SMS and non-punitive reporting.

UPS has no pre-existing surveys or specific trend data highlighting attitudes and perceptions of fatigue and non-punitive reporting. On average UPS receives **260 crew "event reports" and 50 Aviation Safety Action reports** each month. Crewmembers report on safety, operational, and fatigue issues. Robust reporting from our crewmembers allows UPS to proactively address issues and concerns bought to our attention. These numbers indicate widespread support of UPS's "non-punitive" reporting systems.

E. Typical performance decrements resulting from fatigue.

Specific performance decrements that might be expected by a crew member in a fatigued state varies, but generally can be categorized into the following threat areas:

1. Loss of situational awareness.
2. Lack of communication skill.
3. Complacency with standard operating procedures.
4. Slower reaction times.
5. Judgment and decision errors.

We trust this responds directly to the specific requests for supplemental information. We continue in our efforts to support the ongoing investigation by the NTSB and welcome any additional requests from the NTSB for assistance or additional information.

Sincerely,

UNITED PARCEL SERVICE CO.

[redacted]

Houston Mills
Director of Safety