INDEPENDENT PILOTS ASSOCIATION

20 March 2014

Dan Bower, Ph.D.
Investigator In Charge, UPS Flight 1354 Accident Investigation
National Transportation Safety Board
490 L'Enfant Plaza East, SW
Washington, DC 20594

Re: NTSB ID DCA13MA133

Dear Dr. Bower:

During the 20 February 2014 fact finding hearing into the loss of UPS Flight 1354 at Birmingham, AL, the NTSB Board requested additional information to be submitted into the public docket within 30 days of the hearing.

The IPA inputs follow:

• IOU #1 Information regarding shared responsibilities between UPS and IPA regarding fatigue:

The IPA had no active involvement in the development or the implementation of UPS' Fatigue Risk Management Plan (FRMP). Consequently, we are limited to the Collective Bargaining Agreement, which limits shared responsibility only *after* a crewmember calls in fatigued:

1. If the Chief Pilot's Office decides to debit the crewmember's sick bank, the IPA/UPS Fatigue Working Group will then review the circumstances of the fatigue call and will attempt to reach a decision to debit or not debit the crewmember's sick bank.

2. If the IPA and UPS cannot agree on the disposition of the case, the company has the right to decide whether the employee's sick leave bank is debited. The IPA does not have the authority to override the company's final decision.

• IOU #2 IPA to provide survey data on attitudes and perceptions of fatigue among member pilots:

As a result of the NTSB's request for further data, IPA conducted a survey of its pilots about safety and fatigue. The IPA Safety Survey instrument was devised and drafted by a team of leading industry experts, including: Dr. Merrill Mitler, Ph.D., a recognized sleep

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and fatigue expert and Steven Wallace, former FAA Director, Office of Accident Investigation; with guidance from Mark Allen of AmericanPublic.us a policy, communications and polling firm in Washington, D.C.

The survey was hosted by international research firm, Survey Sampling, Inc. (SSI), which handled the emailing of invitations and the data collection. The instruction for data tabulation and analysis of the results were provided by AmericanPublic.us.

On Friday, March 7, 2014, AmericanPublic.us instructed SSI to email an invitation to participate in the IPA Safety Survey to each of the 2,378 eligible IPA crewmembers on the roster as of Tuesday, March 4, 2014. That email invitation contained a unique one-use-only, password-protected link. Alternately, IPA crewmembers were notified about the survey through IPA communications as well and were encouraged to contact AmericanPublic.us in the event they did not receive an email. All requests for survey links were verified by AmericanPublic.us through the email address on file with the IPA. A second email invitation was sent out Wednesday, March 12, to any eligible IPA crewmember who had not completed the survey as of that date, with additional invitations sent out Friday, March 14, Saturday, March 15 and Sunday, March 16 to those who had not yet completed the survey.

By midnight EDT on Sunday, March 16, 2014, 2,202 IPA crewmembers had completed the survey for a response rate of 92.59%. The demographic profile of those crewmembers who completed the survey matches the IPA population with respect to tenure of service, domicile, fleet flown and seat occupied. The margin of error for this survey is +/- 0.57% at the 95% confidence interval.

The numerical results for each survey item cited are available upon request. IPA members who responded (Respondents) indicate multiple concerns related to safety and fatigue in UPS flight operations. Several aspects of the results are noteworthy.

- 90% of Respondents disagree that UPS manages fatigue threats and prevents and mitigates fatigue risk in order to ensure safe flight operations (Question 3).

- 89% of Respondents disagree that UPS mitigates fatigue risk when trends or threats associated with schedules, pairings or trips are identified to them (Question 5).

- 88% of Respondents agree that calling in fatigued will invite adverse scrutiny from UPS (Question 19). 80% of Respondents agree that calling in sick will invite adverse scrutiny from UPS (Question 20).

- Results for survey items pertaining to reporting fatigue indicate that Respondents disagree that reporting fatigue risk is non-punitive. Case in point, 84% of Respondents disagree that UPS encourages crewmembers, in a non-punitive manner, to report fatigue risk that they encounter or see (Question 6).

- 93% of Respondents agree that it is not uncommon to fly with another crewmember who exhibits signs of fatigue (Question 18).

- 89% of Respondents agree that fatigue prevention and mitigating the effects of fatigue are a joint responsibility of UPS and IPA crewmembers (Question 7).

- Results for survey items pertaining to training indicate that Respondents disagree that UPS fatigue training is adequate. Case in point, 68% of Respondents disagree that the UPS fatigue risk management plan and training have helped the crewmember recognize the threats of fatigue in themselves and co-workers (Question 9).

- 95% of Respondents agree that schedules would improve from a fatigue/safety standpoint if there were an effective IPA and UPS partnership in creating the pairings and lines (Question 24).

- 78% of Respondents disagree that adequate sleep rooms are available for crewmembers throughout the UPS system (Question 29).

- With respect to perceived causes of fatigue, inspection of results (Question 32) indicates that the following factors are most commonly cited as the #1 cause of fatigue:
    - Pairing/trip construction
    - Flying the back side of the clock
    - Day-flying and night-flying (circadian flip) in consecutive duty periods
    - Line construction (a line = all pairings within a pay period)
    - 24-hour layovers

Responses to Questions 35&36 highlight the prevailing attitudes among UPS pilots:

QUERY	Responses
Question 35: During your career with UPS, have you ever felt fatigued on duty but did not call in fatigued?	Yes: 96 %
Question 36: Being as specific as you can, why did you not call in fatigued when you felt fatigued on duty?	Only some answers are provided here: -- Fear of retribution/punitive action/ get suspended. -- Did not want my name highlighted in any way/spotlight myself to the company as a troublemaker.

A more complete summation and analysis of the survey will accompany the formal party submission.

• IOU #3 Information regarding the next steps for fatigue management and safety management system (SMS) applications, and the gaps in these efforts:

Fatigue management: Presently, there is no collaborative process for the IPA and UPS to work jointly on fatigue matters and fatigue risk reduction. UPS has acknowledged fatigue is a threat to safety. Going forward, UPS needs to build a "just culture" that curtails a punitive response to employee reports of fatigue. An environment needs to be created where fatigue is viewed as a safety of flight issue, not simply an issue of a pilot's compliance with the flight schedule.

The challenges:

-- The nature of the business model at UPS exposes the crewmember to a greater risk of fatigue due to flying through multiple time zones and on the "back side of the clock" (early a.m. hours) which exposes crews to operating during the "window of circadian low" where fatigue is naturally at its maximum.

-- UPS has acknowledged fatigue is a threat, however, there is not a proactive company-wide approach that employs scientific principles of fatigue risk management.

-- IPA has negligible involvement with UPS on the issue of fatigue management. As a consequence, IPA has been forced to seek involvement with the company through the Collective Bargaining Process.

Gaps in the current approach to fatigue:

-- Company derived flight schedules do not take into account currently accepted scientific knowledge regarding fatigue.

-- At present, a fatigued pilot too frequently decides against calling in fatigued and self-reporting this fact for fear of company retribution.

-- The company's fatigue review process does not involve IPA.

The outlook (i.e., what must be done):

-- Scientifically-based flight time and duty time rules and schedules need to be adopted.

-- UPS and IPA jointly need to analyze fatigue risks and jointly implement mitigation protocols.

-- UPS and IPA jointly need to monitor the effectiveness of fatigue management programs.

-- UPS and IPA jointly need to communicate developments, changes, training and other trends regarding fatigue openly so that all concerned are apprised not only of developments at UPS, but also how the latest scientific findings and research are incorporated at UPS.

-- A culture must be developed that respects fatigue as a genuine safety of flight issue and not just a matter of complying with the flight and duty schedule.

-- The recognized success of the industry "No Fault Go-Around" model as it applies to landings can be emulated in fatigue mitigation.

SMS: SMS is a voluntary program, encouraged but not required by the Federal Aviation Administration (FAA). Thus, when the FAA proclaims SMS is a "formal, top-down business approach to managing safety ... including the necessary organizational structures, accountabilities, policies and procedures" (see www.faa.gov/about/initiatives/sms/) the words "required" or "mandated by the FAA" appear nowhere in the text. Operators may, or may not, implement SMS, and whatever program they implement will not be audited for effectiveness by the FAA.

By way of comparison, in Canada, SMS is required by the regulatory authority, Transport Canada. The program is audited by Transport Canada and its manifest safety benefits have been well documented.

SMS was mentioned briefly during the NTSB's February hearing. UPS officials indicated they have been discussing an SMS program; however, they did not indicate a target date for implementation.

<u>The challenges:</u>

-- UPS officials, including the UPS Director of Safety, have stated that SMS embodies a management only function and, therefore, IPA may participate on an "invitation only" basis.

-- Some UPS managers received SMS training with MITRE Corporation in August 2010. The IPA was not invited to participate in this training.

-- In December 2011, 50 IPA leaders received SMS training from MITRE Corporation; resulting in all receiving SMS certification.

-- At present, the only path open to IPA for collaboration with UPS in implementing SMS is through the Collective Bargaining Process.

Gaps in the current approach to SMS:

-- A recent survey of UPS pilots, conducted independently but under the auspices of the IPA, indicated that 95% of them expressed the belief that UPS is either "not very effective" or "not effective at all" in addressing fatigue issues. (Question 15).

-- Non-punitive reporting of legitimate fatigue remains an issue.

-- Except for Aviation Safety Action Plan (ASAP) and Flight Operations Quality Assurance (FOQA), UPS does not distribute timely and consistent safety information.

The outlook (i.e., what must be done):

-- The IPA must become a partner with UPS in all aspects of SMS, to include design of the program, implementation, data gathering, risk mitigation and communication with employees.

-- UPS must stop punitive responses to employee reports of fatigue.

-- An FAA that fully embraces, provides oversight, and regulates SMS throughout the airline industry.

• IOU #4 IPA to provide a list of performance decrements related to fatigue:

During the February hearing, a number of performance decrements attributable to fatigue were discussed. They are indicated below next to the IPA listing.

It is important to note that the factors listed, especially when the factors are combined, interact to reduce performance well beyond the sum of their individual effects. Depending upon the circumstances, each factor has a different weight in assessing overall degradation in performance. With these caveats in mind, below is an IPA listing of pilot-related attentiveness and overall performance reductions attributable to fatigue:

IPA Listing of Fatigue Factors	**Items raised at February hearing (see pages 185-186 of hearing transcript)**
Reduced situational awareness	
Impaired judgment and resulting decision making	Being able to do "what if" planning
Reduced accuracy of performance	Vigilance goes down
Difficulty performing complex tasks	Reaction time goes down
An over estimation of one's level of ability	Being able to pay attention goes down
A lowered acceptance of performance standards (as in executing standard	Making proper decisions

operating procedures, cutting corners, not reading back key performance indicators, excessive speed when deploying flaps, etc.)	A willingness to accept a lower standard of performance
Task fixation (a particular issue when it persists despite alarms or warnings that require immediate attention)	
Delayed reaction	Delayed response and reaction
Attention lapses	Things missed, that are not caught and corrected
Reduced ability to assess latent threats and overt risks	Poor risk assessment
Reduced performance motivation (fatigue makes us dullards)	
Increased propensity to make, and overlook, errors	
Reduced communication among crewmembers, with dispatcher, and with air traffic control	Communicating properly
Decreased coordination among crewmembers, with dispatcher and with air traffic control	Crew Resource Management (CRM)
	Circadian disruption

Thank you for the opportunity to submit this additional information requested during the hearing.

Sincerely,

Captain Stephen Whyte
IPA Party Coordinator

Cc:

Chairman Deborah Hersman
Vice Chairman Christopher Hart
Member Mark Rosekind
Member Robert Sumwalt
Member Earl Weener
Managing Director Thomas Zoeller

File: IPA3