NATIONAL TRANSPORTATION SAFETY BOARD

Washington, D.C.

UPS FOM Excerpt – Internal Human Factors

(4 pages)

Attachment 3

to the Human Performance Group Chairman's Factual Report

DCA13MA133

UPS FOM Excerpt – Internal Human Factors

05.03.01   GENERAL

05.03.01.01   OVERVIEW

Stress, fatigue, personalities, cultural backgrounds, gender, managerial styles, etc. are all "internal" human factors affecting our world in aviation as well as outside our careers. We all deal with these factors in many different ways and how we deal with them can affect our performance.

At UPS our time critical around-the-clock worldwide operations hugely influence our ability to operate at peak proficiency. These "external" factors impact negatively on our abilities to cope with "internal" factors.

So how do we manage these internal human factors? They are in fact considered internal "threats" and managing them decreases the risks associated with them. Though there are no simple answers or solutions, we do have tools and past experience to help us.

05.03.01.02   STANDARDIZED PROCEDURES

UPS has established standardized procedures and adherence to these procedures limits the potential for misunderstanding in the cockpit and supports the safe operation of our aircraft. Strict adherence to standardization limits confusion, particularly in abnormal situations.

We practice these standard procedures during training and examine scenarios where crews behaved in non-standard ways and to highlight the negative circumstances that arise from this behavior. Using standard phraseology also limits the confusion when communicating with ATC and other crewmembers.

05.03.01.03   CHECKLIST DISCIPLINE

We know that checklists cannot be created for all possible situations or emergencies. However, both non-emergency and emergency checklists limit confusion and establish clear guidelines for the safe operation of our aircraft. In addition, modern glass cockpits have systems which identify problems, try to fix them and provide "advisory messages" to aid in solving aircraft systems problems. (e.g., EICAS, EAD, ECAM, etc.) Crews must assure that they carefully identify the correct checklist procedure given the alert or messages displayed. Once identified, crew should thoroughly complete the entire checklist and avoid deviating from the specified procedures.

05.03.01.04   TRAINING

UPS is in the process of completing the transition of all our initial and recurrent training to the Advanced Qualification Program (AQP). AQP allows UPS to tailor its training to represent real issues that have affected our operation and uses inputs from many sources to develop curriculum. Sources for curriculum input include: Event Reports, ASAP reports and Flight Quality Assurance (FOQA) data.

In addition, training data collected throughout the year from recurrent training events help UPS program developers develop subsequent year's curriculum. Evaluations of repeat items or events that are considered critical are re-introduced in next years training as well.

A facilitated debrief has also been established to increase self-awareness as well as critical crewmember self-evaluation. This part of training has proved to be much more effective in getting crewmembers to learn new ways to employ TEM skills to manage risks outside the training environment.

05.03.01.05   INTERPERSONAL SKILLS

Although crewmembers may have similar characteristics, they often come from vary diverse backgrounds. Cultural, gender, race, religious and other diversities bring with them dynamics that can effect safe operations at UPS. Tolerance of individuals and their beliefs, adherence to standardized phraseology and procedures and an understanding of these personality dynamics is paramount to keeping our operations safe here at UPS.

05.03.02   FLIGHT CREW ALERTNESS GUIDE

05.03.02.01   PRACTICAL TIPS FOR SLEEP AND ALERTNESS

GENERAL RECOMMENDATIONS FOR SLEEP IN THE AVIATION ENVIRONMENT

- Take full advantage of sleep opportunities between duty assignments.

- When recovering from sleep debt, arrange to sleep longer than your usual amount by retiring a bit early and awakening a bit later. Plan to increase sleep length by at least 1 hour (for example, from 8 to 9 hours on recovery days) and repeat for at least two days.

- Take a pre-duty nap when starting duty in the evening (show time between 2000 and 0200).

- Take full advantage of nap opportunities while on duty; inflight naps (on augmented legs) and naps at ground facilities.

- Do not deliberately avoid sleep to improve future nap quality.

    - Violates FAA expectations of Fitness For Duty.

    - Introduces unnecessary fatigue risk if the nap is NOT available.

    - If the nap is shortened by prior sleep, that is evidence of lower sleep need.

- Consider the commuting time prior to a trip and ensure adequate sleep prior to reporting, especially if commuting will extend your wakefulness prior to reporting by more than several hours.

- On layovers that are more than three zones from home time, adjust sleep times to be closer to physiological night (home time). For westward travel, retire early. For eastward travel, retire later, provided a delay in bedtime does not shorten the available time for sleep (early start the next day).

- Supplement night time sleep with daytime naps when a full night of sleep is not possible.

GENERAL TIPS FOR IMPROVED SLEEP QUALITY

- Establish a regular, relaxing bedtime routine such as soaking in a hot bath or hot tub, and then reading a book or listening to soothing music.

- Use an eye mask and earplugs or "white noise" to reduce visual and audible disruptions.

- Sleep in a cool environment (65°-70°F).

- Turn off or silence electronic devices that signal E-mail and text messages.

- If unable to sleep after 15 to 20 minutes in bed, get up and engage in a relaxing activity (e.g., listening to music, reading) using low light. Return to bed when you feel sleepy; avoid watching the clock.

- Nourishment:

    - Do not eat a large meal or consume a lot of liquids before bedtime; eat a small snack if hungry. Avoid food that may cause heartburn.

    - Proteins increase energy levels and may inhibit sleep.