WFP AVIATION SAFETY CAMPAIGN
NAIROBI, KENYA 8 – 10 JUNE 2016

WORKSHOP ON FATIGUE RISK MANAGEMENT – GATES AVIATION

On 8 June Gates Aviation's Capt Jo Gillespie facilitated this workshop, attended by a very varied group from the humanitarian aviation community. The workshop was based on the content of the recent publication from ICAO 'Fatigue Management Guide for General Aviation Operators of Large and Turbojet Aeroplanes', recognising that fatigue management systems for airline operators would not be appropriate. The main output of the workshop was the identification of fatigue hazards specific to humanitarian operations and development of optimal solutions. These are summarised in the table below:

Fatigue Hazard	Potential solutions
1. Outstation tours – stress and fatigue due to environmental conditions and potential security threats	a. Reduce the length of rotations in periods/locations of high security risk or following a specific security event b. Define stressful events/circumstances that warrant cancellation of subsequent operations c. Operational flexibility to cope with disruptions
2. Rotation length – the longer an individual is on rotation, the greater the likely exposure to stress and fatigue	a. Balance commercial imperatives with individual needs when planning rotations b. Consider Solutions 1.a to c above
3. Extreme climatic conditions – high temperatures, high humidity, wind and dust	a. Avoid seasons of extreme conditions b. Increase frequency of crew rotations in the worst conditions c. Train and equip local staff to cope with prevailing environment d. Ensure that accommodation facilities mitigate conditions adequately to ensure rest/sleep e. Ensure adequate hydration
4. Inadequate rest facilities – facilities not conducive to good quality/duration of sleep: light, noise, temperature, comfort, food, drinks	a. Review facilities prior to commencement and at regular intervals to ensure they are adequate for the local circumstances b. Encourage reporting of deficiencies c. Ensure deficiencies are rectified promptly
5. Short notice of flight requirements – lifestyle disruption affecting rest and sleep	a. Plan and operate to monthly rosters b. Ensure adequate personnel to minimise disruption due to short notice changes (dedicated standby staff) c. Educate personnel on the functionality of rosters and their own responsibilities

6. Crew responsibilities – drift in compliance due to lengthy periods with no supervision	a. Reinforce the obligation to report fatigue b. Foster a culture of SOP adherence c. Hire/retain compliant personnel
7. Aircraft equipment failure – operational stress due to system unserviceabilities (AP for example)	a. Define list of critical spares and maintain an adequate inventory tailored to the operation/location b. Accelerate scheduled maintenance cycles c. Use defect trend monitoring for proactive management d. Report unserviceabilities immediately e. Replace/rectify promptly f. Ensure the MEL is appropriate to the environment and operation g. Deploy the appropriate aircraft types for the environment/operation
8. Security concerns – stress and fatigue due to concerns with personal security	a. Consider the use of air marshals in extreme circumstances b. Define responsibility for security within the operation c. Work with local humanitarian organisation to manage crowds on ground d. Humanitarian organisations to provide accurate security information to operators

As can be seen several of the hazards overlap and many of the proposed solutions would help mitigate more than one hazard. Personal security concerns, the adequacy of rest facilities and accommodation (including catering, entertainment, communications and medical care) and the length of time personnel spend on rotation, away from home and perhaps without supervision were the predominant concerns specific to humanitarian operations.

It is proposed that this output of concerns and solutions forms the basis of a conversation within airlines and between airlines and the contracting humanitarian organisations, to develop pragmatic and commercially viable mitigations to the very real risks of fatigue in critical personnel. At the same time it is recommended that airline personnel, operators and contracting organisations familiarise themselves with the ICAO document referred to in the opening paragraph, available from WFP ASU and Gates Aviation jgillespie@gatesaviation.com .