

**10/2009****Applicability: All AOC Holders****FLIGHT TIME LIMITATIONS (FTL) SCHEMES – CURRENT ISSUES AND CONCERNS****1 Introduction**

- 1.1 The Air Navigation Order (ANO) and EU-OPS both require Air Operator Certificate holders to establish Schemes for the regulation of flight times of crews which must be approved by the CAA. The CAA's guidance material is contained in CAP 371 *The Avoidance of Fatigue in Aircrews*. Current experience indicates that although operators use the exemplars given in CAP 371 to create their Schemes, they sometimes find it necessary to 'interpret' this guidance. This 'interpretation' has resulted in situations that were not envisaged when the guidance material was drawn up.
- 1.2 This FODCOM highlights some of the CAA's current concerns over FTL practices, provides clarity over certain aspects of the guidance in CAP 371, and includes details of some additional allowable variations to Schemes (originally published in FODCOM 16/2005).

**2 General Points****2.1 The Status of CAP 371**

European legislation provides for a Member State to continue to maintain national provisions regarding flight and duty time limitations, provided that commonly established procedures are complied with, and until Community rules based on scientific knowledge and best practices are established. [CAP 371](#) contains the UK national provisions.

**2.2 The Responsibility for Management of Fatigue Risk**

Regulations place responsibilities for avoidance of fatigue on both operators and crew members. The operator is responsible for operating safely, which entails the appropriate management of all safety risks affecting their flights; crew fatigue is one of these risks. Appropriate mitigations for the risk include an approved FTL Scheme with provision for good rostering practice, and other best practice recommendations of CAP 371. The approved FTL Scheme needs to be properly owned, implemented and monitored by the operator. The operator has the responsibility for ensuring that all staff know their duties, how their duties are to be carried out, and what limitations apply; this will involve training as well as written guidance.

**2.3 CAA Oversight**

The operator's Quality System should ensure compliance with the approved FTL Scheme. Operators can expect audits to confirm that their Quality System makes adequate provision for this monitoring and that it can be shown to be effective in dealing reactively with reported FTL non-compliances and issues. In addition, sample inspections of records to verify the effectiveness of the operator's Scheme and process audits of specific aspects of FTL management may be conducted. For operators with Safety Management Systems (SMS) and/or Fatigue Risk Management Systems (FRMS), appropriate internal audits of fatigue risk management should be carried out. All oversight will have the aim of confirming that the operator continues to comply with requirements and adequately manages their fatigue risk.

**2.4 Interpretations**

Since a Scheme is owned by the operator and submitted to the CAA for approval, the operator should, prior to submission, confirm that the guidance is clear, appropriate to their operation and unambiguous. If a condition within an approved Scheme becomes unclear to crews, rostering teams or the management of a company, 'interpretations' are sometimes used. On occasions these 'interpretations'

have been provided officially by the CAA in communications such as this FODCOM, or verbally through the assigned Flight Operations Inspector (FOI) or other CAA staff. However, no official records of these additional 'interpretations' have been maintained. Most 'interpretations' meet the intent of the guidance in CAP 371, but cases where excessive duty periods are being worked or rostered have been noted, putting individuals and companies at risk from the effects of fatigue. If any doubt arises about the interpretation of the operator's Scheme, then the operational management should determine their relevant policy and intentions, and draft any required amendment to the Scheme to clarify these. The amended Scheme should be submitted as a Notice of Proposed Amendment (NPA) in the normal way through the assigned FOI.

## **2.5 Roster Planning and Staff Training**

Occasionally, rosters exhibit creative scheduling including misinterpretation of CAA guidance often coupled with unrealistic planned turnaround times, which may be attributable to commercial pressures. Operators are strongly urged to consider crew rostering in the early planning of commercial schedules to minimise such problems and to ensure that all staff required for rostering and crewing duties receive appropriate initial **and** recurrent training as recommended in CAP 371. The training should include education on the effects of sleep deprivation and circadian rhythm disturbance.

## **3 Specific Concerns**

### **3.1 Standard Level 1 and Level 2 Variations**

It is essential that operators' Schemes contain guidance to all involved in the use of Standard Level 1 and Level 2 Variations on the full range of applicable conditions. The variations were made available to allow an increase in the planned Flying Duty Period (FDP) of 30 and 60 minutes respectively for a flight crew consisting of two pilots only, provided certain conditions were met that provided equivalent protection from fatigue risks. The applicability of the variations remains to permit a two-pilot crew to operate two consecutive sectors, either outbound from the UK to a final destination outside the UK, or a return trip from the UK and back, or two sectors from outside the UK with a final destination within the UK, within a single extended FDP. A positioning sector within the extended FDP is not permitted when applying these variations.

### **3.2 Level 2 Variation - Out of Base Use**

A number of operators have been permitted to implement the Level 2 Variation for flights departing from or returning to an airport in the British Isles other than the crew members' home base(s) (out of base operation). One of the conditions of a Level 2 Variation is that a rest period of two local nights and 34 hours must be achieved before operating the extended FDP. However, in order to achieve the benefits of rest at home it has been accepted that a short positioning duty of no more than four hours, followed by at least a minimum rest period before operating the extended flight, gives adequate rest. Similarly, an extended flight returning to the British Isles can be followed by a similar short positioning duty to allow the required Day Off to be taken at home. The out of base use of a Level 2 Variation is not permitted unless provided for by an operator's approved FTL Scheme. When the use of this type of variation results in very long duty periods, even where no direct flight safety risk is involved, as in travel home after duty, operators may wish to consider any implications for the duty of care towards staff of requiring such work patterns.

### **3.3 Facilities for In-Flight Relief**

When In-Flight Relief is used to extend an FDP, the resting crew member must be provided with a comfortable reclining seat or bunk (see paragraph 8.4 of [CAA Paper 2003/8](#)), which must be separated and screened from the flight deck and passengers, and free from disturbance. The minimum specifications for a seat to meet this requirement is that it reclines to at least 40 degrees, has leg and foot support and is screened by the use of a thick curtain. The operator must ensure that levels of light and noise affecting the seat location will permit adequate rest to be achieved.

### **3.4 Use of Commander's Discretion and Reporting**

CAP 371 permits aircraft commanders to extend FDPs or reduce rest periods as a consequence of unforeseen events during the execution of a schedule or roster. However, rosters should never be

planned in such a way that minor unforeseen events will automatically require the use of discretion. Furthermore, the use of discretion should be monitored closely. Guidance on the use of discretion is provided in individual FTL Schemes. Operators are reminded that the use of discretion rests solely with the aircraft commander, who should take into account the ability of all the crew members to continue to operate safely. Operators should maintain a trend analysis relating to the use of discretion in order to manage the process.

## 3.5 Secondary Employment

- 3.5.1 Commercial Air Transport (Public Transport) flights or flights operated by an air transport undertaking must be conducted by crews adhering to the requirements of an approved FTL Scheme. These Schemes specify the accountability of all flight and duty times of crew members. Some additional work-related activities, undertaken during assigned Days Off, could significantly impact on a crew member's ability to sufficiently recover from both transient and cumulative fatigue. Certain activities, therefore, need to be recorded so that a crew member's duty records adequately represent the overall potential for fatigue.
- 3.5.2 An example of when these activities need to be recorded is where a pilot undertakes secondary employment for which he has received the authority of the CAA and/or according to the privileges of a professional pilot's licence, for example, duties undertaken in a flight simulator. The time engaged on these duties must be recorded and the crew member is required to provide this information to their primary employer (see Article 82(3) of the ANO 2005). The primary employer's responsibility is to ensure that the minimum rest periods and Days Off requirements contained in their approved FTL Scheme are met.
- 3.5.3 Attempting to control other secondary and recreational activity through a similar process would create a significant administrative burden for both operators and crew members. In particular, it would be very difficult to define and account for 'relevant activities'. Operators should therefore ensure that crew members are aware of the need to act in a professional manner in discharging their legal responsibilities under Article 83 of the ANO, by ensuring that effective use is made of all planned rest periods.

## 3.6 Report Times

Report times (and post-flight duty times) are specified in FTL Schemes and are intended to give crew members sufficient time to complete all pre- or post-flight duties. The guidance suggests, for large companies, one hour as a **minimum** for pre-flight duties with half an hour for post-flight duties. However, the CAA occasionally receives reports that indicate that operators are very reluctant to change report times even if there has been a considerable change in circumstances at the report location (e.g. in security or crew baggage handling requirements). FOIs will expect operators to demonstrate that report times will allow all required duties to be accomplished within the specified times under normal circumstances. If a significant number of operators prove unable to do so, the CAA may consider raising the minimum allowable report time.

## 3.7 Use of Split Duty

- 3.7.1 The ability to extend an FDP by a Split Duty was never intended for use as an 'on-the-day' operational tool. The use of Split Duty was developed as a planning or rostering device so that affected crew members could plan their pre-flight rest and off-duty activities accordingly. Instances have been reported where normally rostered FDPs have been extended by declaring any unexpected delay as part of a Split Duty. Operators are advised to check that this unintended use of Split Duty is not occurring in their operation.
- 3.7.2 When planned Split Duty involves rest in a hotel, the accommodation should be located within 15 minutes of the report location, using the normal means of transportation. If the accommodation is further than 15 minutes away then the additional travelling time should be added to the post- and pre-flight duty allowance in order to calculate the allowable Split Duty.
- 3.7.3 Where the Split Duty period has been over six hours, and especially in the case of more complex operations (i.e. those involving complex aircraft types or more than basic pre-flight planning requirements), operators should increase the pre-flight duty allowance in order to calculate the allowable Split Duty.

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3.7.4 Exceptionally, where there is a significant delay which could not have been foreseen, and with the agreement of the Commander, an unplanned Split Duty may be used. The Commander will consult with the rest of the crew, who must remain undisturbed until the agreed report time. Operators should keep a record of the use of Split Duty as part of their roster monitoring processes, which should be made available to FOIs on request.

## 3.8 Standby Accountability

CAP 371 allows for the discounting of Standby Duty towards Cumulative Duty totals at 50% only where:

- a) the Standby Duty occurs during the period 2200-0800 hours local time where the crew member can take undisturbed rest at home or in suitable accommodation, and is not called out for duty; or
- b) the crew member has been given notice, prior to the commencement of the Standby Duty, that any call out period will be at least three times the standard report time of that Scheme.

In all other circumstances, all Standby Duty is accountable in full towards Cumulative Duty totals.

## 4 Additional Standard Variations

### 4.1 Additional Variations

The following additional variations were introduced in FODCOM 16/2005 as Standard Variations. As the principal purpose of the FODCOM had been to introduce Edition 4 of CAP 371, it was subsequently withdrawn. However, operators are still permitted to use the following variations:

- a) Self-Drive Positioning Variation; and
- b) Alternate Base Variation.

## 5 Recommendation

5.1 **Operators should check their systems for managing fatigue risk, including FTL Schemes and rostering arrangements, against CAP 371 and the guidance in this FODCOM and make any necessary changes. Any FTL Scheme amendments should be submitted for CAA approval through the assigned FOI.**

## 6 Queries

6.1 Any queries as a result of this FODCOM should be addressed to Head of Flight Operations Policy Department at the following e-mail address: [FOP.Admin@caa.co.uk](mailto:FOP.Admin@caa.co.uk).

6 April 2009

***Recipients of new FODCOMs are asked to ensure that these are copied to their 'in house' or contracted maintenance organisation, to relevant outside contractors, and to all members of their staff who could have an interest in the information or who need to take appropriate action in response to this Communication.***

**Review FOP(C) March 2010**