



Flight Time Limitations RMT – Latest Developments

Monday, 23rd May 2016 | 11:30 – 11:50

PRESENTED BY:

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Flight Time Limitations - FTL

Background

- European Commission Regulation No. 83/2014 on Flight and Duty Time Limitations in air operations applies to general CAT operations from 18th February 2016. Air Taxi Operators continue to comply with Subpart Q.
- New FTL rules applicable to Air Taxi & EMS are under development.

“air taxi operation”

means, for the purpose of flight time and duty time limitations, a **nonscheduled on demand commercial air transport** operation with an aeroplane with a maximum operational passenger seating configuration ('**MOPSC**') of **19 or less**.



RMT.0429 and RMT.0493 (OPS.071(b))

History

- Rulemaking task started 10th January, 2013
- Subject: Updating and harmonising of FTL for commercial air transport (**CAT**) by aeroplane for **air taxi operations** and single-pilot operations **taking into account operational experience** and recent **scientific evidence**.
- EBAA & ECA decided to jointly launched a scientific study.
- Study preparation started in August 2014 and data collection in October 2014.
- **87 pilots** from **22 European Operators** participated in the study.
- Information was obtained from a total of **2.610** elapsed **days**, during which there were **839 flight duty periods**.

Study of Fatigue in Air Taxi, EMS in CAT

Objectives



FRMSc Study of Fatigue in
Air Taxi, Emergency Medical
Service, Commercial Air
Operations
Presentation to GASA
October 27th October 2023
Bellevue, WA
and Mid-South
FRMSc
10000 1st Avenue, Suite 1000
Seattle, WA 98108



- **Measure** the **effects** that **duties and rosters flown** by the identified voluntary population of pilots engaged in both Air Taxi and Emergency Medical Service operations **have on all types of fatigue** (Transient, Cumulative and Circadian).
- **Identify** where the **differences** between **Air Taxi** operations and **scheduled CAT operations** impact on alertness levels, transient and cumulative fatigue in such a way as to increase or reduce particular fatigue risks.
- To **identify** the **major fatigue risks affecting business aviation** operations and **propose** associated **scientifically based** and effective **mitigation** measures.

Study in Fatigue in Air Taxi, EMS in CAT

Conclusions (1/2)

- As in normal commercial operations, the **build-up in fatigue** during a FDP is **determined** mainly by the **time of day** and the **duration of duty**.
- However, the **amount of flying is also an important influence**, rather than the number of sectors.
- Although EMS pilots have longer duty hours, the factors contributing to fatigue are the same as for Air Taxi operations.
- There is **insufficient data** to determine the effects on fatigue of **trans-meridian flights** in these operations.
- Positioning / commuting during a FDP is especially fatiguing.

Source: FRMSc Limited



Study in Fatigue in Air Taxi, EMS in CAT

Conclusions (2/2)

- The **workload** in EMS/ATXO operations is **relatively low** in terms of
 - cumulative flying hours; - total days free of duty; - consecutive days of duty
- **Little significant increase** in fatigue with **number of sectors**
- Based on these considerations, and after controlling for workload and flying time, it is **possible to envisage a modified approach to controlling fatigue** in these operations, for example:
 - by **relaxing the link** between **max FDP** and **number of sectors**,
 - by **permitting 1h extensions** outside the WOCL **as standard**,
 - by **relaxing the link** between **minimum rest** and the **duration of the previous duty** (but only when the rest is overnight).

Source: FRMSc Limited



Study in Fatigue in Air Taxi, EMS in CAT

Specific problems identified linked to actual CAT FTL IR

- Air Taxi pilots fly fewer hours and have fewer duty days than their commercial equivalents (less than 30 hours flying and around 10 duty days per month)
- Non-scheduled operations require more flexibility
- Last minute changes occur at short notice making planning difficult
- Reduction in maximum daily FDP poses a problem for the 3rd sector as three sectors are common in Air Taxi (one of three is often a positioning flight)
- Definition of acclimatized is an issue, as application and calculation is difficult when planning at short notice
- Standby is said to be more relaxed than airline standby

RMT.0429 and RMT.0493 (OPS.071(b))

RMT activities

- RMT reviewed the result of the study
- Draft NPA IR, CS, AMC & GM
- Further Scientific Assessment of proposed FTL tables
- Regulatory Impact Assessment (RIA) actually finalized
- NPA publication June 2016
- Opinion earliest 2017
- Entry into force?



RMT.0429 and RMT.0493 (OPS.071(b))

NPA Key Points

- ORO.FTL.205 (b)(1) & (d) - Flight duty period (FDP)
 - Basic maximum daily FDP – **New tables in CS**
 - i) the **one- and two-sector limits** have been **extended to three sectors**,
 - ii) the **maximum limit** has been extended to **14 hours**, for start times before midday to as early as 07:00, with a tapering down to the standard 13 hours at 06:00, and
 - iii) the **reduction** in maximum **FDP** with number of sectors **starts with the fourth sector** so that, for example, some five-sector limits are one hour longer than standard. However, the six-sector limits remain unchanged.



RMT.0429 and RMT.0493 (OPS.071(b))

NPA Key Points

- ORO.FTL.205(e) – Max. daily FDP with the use of extensions due to in-flight rest

Many aeroplanes used in ATXO do not meet the **standards for in-flight rest facilities** as defined in CS FTL.1.205, therefore **new categories** are **introduced** in the CS.

- **‘Class A** rest facility’ means a bunk or other surface that allows for a flat or near flat sleeping position. It reclines to at least 80° back angle to the vertical.
- **‘Class B** rest facility’ means a seat in an aircraft cabin that reclines at least 45° back angle to the vertical, has a seat width of at least 20 inches (50 cm) and provides leg and foot support.
- Extension up to 16 hours (Class A / 1 add. Crew Member)
- Extension up to 17 hours (Class A / 2 add. Crew Members)
- Furthermore, due to the nature of air taxi operations **rest on board** may also be taken **when the aircraft is on the ground** (on-board rest)

RMT.0429 and RMT.0493 (OPS.071(b))

NPA Key Points

- ORO.FTL.210 – Flight times and duty periods

Sets condition to use flight time specification schemes applicable to Air Taxi operations, **CS establishes further limits to the total flight time** on which an individual crew member is assigned as an operating crew member as follows:

- (i) **80** hours of flight time in any 28 consecutive days;
- (ii) **210** hours of flight in any **84 consecutive days**; and
- (iii) **625** hours of flight time in any 12 consecutive calendar months

- Duty times as per scheduled CAT.

RMT.0429 and RMT.0493 (OPS.071(b))

NPA Key Points

- ORO.FTL.215 – Positioning

The **study** has **identified positioning** as a major contributing factor to fatigue in on demand operations. **More restrictive provisions** mitigate against fatigue originating from positioning if operators wish **to benefit** from the additional **flexibility of relaxed FDP limits** for ATXO. Certification specifications specifies the impact on the maximum FDP of the duration of the positioning and the transport mode.

- (a) If the **positioning time** is **more than 1 hour** or **includes more than one transport mode** the maximum FDP is reduced by 30 minutes;
- (b) if **self-driving** is chosen as transport mode to position crew members, the **maximum daily FDP** is **reduced** for crew members travelling in the motor vehicle by
 - (i) **30 min** if the driving time is between 30 min and 60 min; and
 - (ii) **twice the duration** of the self-driving time in **excess of 60 minutes**.

RMT.0429 and RMT.0493 (OPS.071(b))

NPA Key Points

- ORO.FTL.220 – Split duty

CS FTL-1 allows only one break during an FDP. The nature of air taxi operations makes it necessary to cater **for operations with more than one break**.

➤ CS Air Taxi introduces some additional limitations:

- Any additional break on the ground within the FDP has a **minimum duration** of at least **2 consecutive hours**.
- **Suitable accommodation** is provided either for any break of 6 hours or more or for a break that encroaches the window of circadian low (WOCL) **unless the aircraft is equipped with a Class A** rest facility, the ability to control light and temperature, a ventilation system and crew members are undisturbed during the entire break.



RMT.0429 and RMT.0493 (OPS.071(b))

NPA Key Points

- ORO.FTL.225 – Standby

Crew members in ATXO spend many more days than crew members in scheduled and charter CAT operations on standby without being called out, therefore different requirements are introduced in the CS.

Standby other than airport standby:

- The **maximum duration** of standby other than airport standby is **16 hours**
- the operator's standby procedures are designed to **avoid** that the combination of **standby and FDP leads to more than 18 hours awake time**
- standby is **followed** by an at least **10h rest period**
- CS sets conditions when standby ceases

RMT.0429 and RMT.0493 (OPS.071(b))

NPA Key Points

- ORO.FTL.230 – Reserve
 - (a) An assigned FDP counts from the reporting time.
 - (b) Reserve times do not count as duty period**
 - (c) The operator defines the maximum number of consecutive reserve days within the limits of ORO.FTL.235 (d).
 - (d) To **protect an 8-hour sleep opportunity**, the operator rosters a period of 8 hours, taking into account fatigue management principles, for each reserve day during which a crew member on reserve is not contacted by the operator.

RMT.0429 and RMT.0493 (OPS.071(b))

NPA Key Points

- ORO.FTL.235 – Rest periods

Additional **flexibility to remove** of the **requirement** that the **minimum rest** should be **at least as long as the preceding duty**.

- CS introduces requirements sets the conditions to apply reduced rest:
 - the crew member is acclimatised;
 - the rest period includes a local night;
 - the rest period takes place at a location no further than 3 time zones away from the place of departure;
 - the flight time in the FDP prior to the rest period is no more than 8 hours;
 - the FDP prior to the rest is limited to 4 sectors and
 - the total flight time in the previous 7 consecutive days prior to rest period is no more than 24 hours



Next steps

- NPA publication June 2016
- Please review the proposed text carefully
- Please comment

Thank you for your attention



EBACE

24-26 MAY 2016 | GENEVA

