Implementing Rules for Air Operations

EBAA EASA Rules Seminar
Paris, 16 October 2008

AGENDA

- I. Differences with the JAA system
- II. Part Air Operations
- III. Part Organisation Requirements
- IV. Part Authority Requirements
- V. The OPS NPA

I. Differences with the JAA system

Differences with the JAA system

- **The Agency proposals**
  - **are based on ICAO Annex 6**
  - **follow latest amendments of EU-OPS/JARs:**
    - EU-OPS (Reg. 859/2008) / JAR-OPS 1 Amendment 13
    - JAR-OPS 3 Amendment 5
    - Draft JAR-OPS 0,2,4 after A-NPA process - 2002/03
  - **take into account JAA NPAs in an advanced phase of adoption (ex: NPA-OPS 39B Datalink recording forward fit)**

Differences with the JAA system

- As EASA implementing rules are binding in their entirety (not minimum standards nor recommended practices), they shall be less prescriptive to provide for flexibility (performance based).
- To provide for uniformity, Acceptable Means of Compliance have to be issued on how to comply with the implementing rules.
- As a consequence, some rule material included in Sections 1 of JARs was 'downgraded' to AMC.

Differences with the JAA system

- Because the scope of the EASA system extends well beyond that of the JAA (ex: JAR-OPS only applies to CAT, EASA rules shall cover all aircraft and types of activities); and

- Because drafting principles of Community law require that a requirement applicable to various persons/organisations be set in a single text

It is not possible to have one rule per type of activity or aircraft

Differences with the JAA system

- The Agency proposals also contain differences in the drafting style resulting from the application of EU principles.
- Community legislative acts shall be drafted clearly, simply and precisely. The drafting of a legislative act must be:
  - clear, easy to understand and unambiguous;
  - simple, concise, containing no unnecessary elements;
  - precise, leaving no uncertainty in the mind of the reader.

II. Part Air Operations (OPS)

Your guide through the future rules

Part-OPS Structure

Basic Regulation

Air Operations Cover Regulation

Annex I Part-OPS

Subpart A OPS.GEN	Subpart B OPS.CAT	Subpart C OPS.COM	Subpart D OPS.SPA	Subpart E*
General Operating and Flight Rules	Commercial Air Transport	Commercial Operations other than commercial air transport	Operations requiring specific approvals	Third country operators

AMC and GM to Part-OPS

* NPA of task OPS.004 – to be published mid December 2008

Part-OPS Content

- **Part-OPS contains technical requirements for:**
  - **Air operations of any aircraft**
    - aeroplanes, helicopters, sailplanes and balloons*
  - **Non-commercial and commercial operations**
    - Non-commercial operations with non-complex motor-powered aircraft and complex motor-powered aircraft
    - Commercial air transport
    - Commercial operations other than commercial air transport (aerial work)
- **These technical requirements correspond to chapters 1-7 of Annex IV of the BR Essential requirements for air operations**

* tilt-rotor aircraft, airships and UAV will be addressed in separate EASA Rulemaking tasks

Part-OPS Subpart structure

Annex I Part-OPS

Subpart A

OPS.GEN

Section I - General Requirements (OPS.GEN.001)
Section II - Operational procedures (OPS.GEN.100)
Section III - Aircraft performance and operating limitations (OPS.GEN.300)
Section IV - Instruments, data and equipment (OPS.GEN.400)
Section V - Manuals, Logs and Records (OPS.GEN.600)
Section VI - Security (OPS.GEN.700)

AMC and GM to Part-OPS follow the IRs

Subpart A - OPS.GEN

- Subpart OPS.GEN is applicable to all operations

Part-OPS Subpart structure

Annex I Part-OPS

Subpart B
OPS.CAT

Subpart C
OPS.COM

Section I - General Requirements (OPS.CAT/COM.001)
Section II - Operational procedures (OPS.CAT/COM.100)
Section III - Aircraft performance and operating limitations (OPS.CAT/COM.300)
Section IV - Instruments, data and equipment (OPS.CAT/COM.400)

AMC and GM to Part-OPS follow the IRs

Subpart B - OPS.CAT and Subpart C – OPS.COM

- Subparts OPS.CAT contains additional and specific requirements for Commercial Air Transport
- Subpart OPS.COM contains additional and specific requirements for Commercial Operations other than Commercial Air Transport (Aerial Work)

Part-OPS Paragraph numbering

- A consistent numbering system has been applied across Subparts OPS.GEN, OPS.CAT and OPS.COM
- OPS.GEN as the general subpart is the guiding subpart in terms of paragraph numbering
- Consecutive paragraph numbering by 5

Part-OPS Paragraph numbering Example

OPS.GEN.115 Passenger Briefing

- Passengers shall be briefed on the location and use of emergency exits and relevant safety and emergency equipment.

OPS.CAT.115 Passenger Briefing

- Passengers of motor-powered aircraft shall be provided with a safety briefing card on which pictorial instructions indicate the operation of emergency equipment and exits likely to be used by passengers in the case of an emergency.

OPS.COM.115 no specific requirement, but

OPS.COM.116 Briefing of operational personnel

- Operational personnel involved in specialised tasks shall be briefed on operational procedures associated with the specific task before each flight or series of flights.

- Appropriate AMC is provided

Part-OPS Subpart structure

Annex I Part-OPS

Subpart D

OPS.SPA

Section I - General requirements (OPS.SPA..GEN)
Section II - Operations in areas with specified navigation performance (OPS.SPA.PBN/MNPS)
Section III - Operations with reduced vertical separation minima (OPS.SPA.RVSM)
Section IV - Low visibility operations (OPS.SPA.LVO)
Section V - Transport of dangerous goods (OPS.SPA.DG)
Section VI - Helicopter operations without an assured safe forced landing capability (OPS.SPA.SFL)
Section VII - Helicopter operations with night vision imaging systems (OPS.SPA.NVIS)
Section VIII - Helicopter hoist operations (OPS.SPA.HHO)
Section IX - Helicopter emergency medical service operations (OPS.SPA.HEMS)

AMC and GM to Part-OPS follow the IRs

Subpart D - OPS.SPA

- Subpart OPS.SPA contains requirements for specific operations subject to a specific approval
- For certificate (AOC) holders, these will be additional privileges on the certificate

Subpart A - OPS.GEN content

- Section I - General Requirements (OPS.GEN.001)
  - Scope
  - Designation of the competent authority – principal place of business of the operator
  - Definitions
  - Pilot-in-command and crew member responsibilities
  - Transport of dangerous goods - exceptions of the OPS.SPA.DG approval (e.g. if used for aerial work or carried by passengers)

Subpart A - OPS.GEN content

- **Section II - Operational procedures (OPS.GEN.100)**
  - **Flight preparation requirements, e.g.**
    - external surfaces being clear of deposit/ de-/anti-icing
  - **Passenger related requirements, e.g.**
    - briefing, seating, use of safety belts, smoking, use of Portable Electronic Devices (PED)

Subpart A - OPS.GEN content

- **Section II - Operational procedures (OPS.GEN.100) cont'd.**
  - **Operation requirements, e.g.**
    - use of aerodromes adequate for the type of aircraft and operation
    - IFR operating minima
    - selection of alternate aerodromes
    - departure and approach procedures
    - noise abatement
    - minimum flight altitudes
    - approach ban
    - fuel

Subpart A - OPS.GEN content

- **Section III - Aircraft performance and operating limitations (OPS.GEN.300)**
  - **Mass and Balance requirements, e.g.**
    - Weighing
    - Operators‘ Mass and Balance System to establish the appropriate masses, load distribution and documentation (commercial)
  - **General aircraft performance requirements**

Subpart A - OPS.GEN content

- Section IV - Instruments, data and equipment (OPS.GEN.400)
  - Instruments and equipment requirements
  - Includes navigation and communication equipment

Subpart A - OPS.GEN content

- Section V - Manuals, Logs and Records (OPS.GEN.600)
  - Documents and information to be carried
  - Journey Log Book
- Section VI - Security (OPS.GEN.700)
  - Disruptive Passenger Behaviour
  - Reporting acts of unlawful interference

Subpart B - OPS.CAT content

- **Section I - General Requirements (OPS.CAT.001)**
  - **in addition to OPS.GEN**
    - Carriage of weapons and ammunition

Subpart B - OPS.CAT content

- **Section II - Operational procedures (OPS.CAT.100)**
  - **in addition to OPS.GEN, specific requirements, e.g.**
    - carriage of special categories of passengers
    - selection of (alternate) aerodromes and planning minima
    - use of Air Traffic Services
    - ETOPS

Subpart B - OPS.CAT content

- Section III - Aircraft performance and operating limitations (OPS.CAT.300)
  - in addition to OPS.GEN, specific performance requirements on take-off, en-route, landing
- Section IV - Instruments, data and equipment (OPS.CAT.400)
  - in addition to OPS.GEN, specific instruments and equipment requirements, e.g. airborne weather equipment

Subpart C - OPS.COM content

- Sections I-IV - specific requirements for aerial work operations, e.g.
  - flights below minimum altitude
  - Operations with open/removed doors

Subpart C - OPS.COM content

- Concept of Standard Operating Procedures (Code of Practices)
  - risk assessment for specialised operations and development of appropriate procedures
  - generic AMC/GM provided
  - Future: one AMC per specialised activity

Subpart D - OPS.SPA content

- Operations subject to specific approvals
  - general requirements on application and continued compliance
  - Operations in designated airspace such as Performance Based Navigation (PBN), MNPS, RVSM
  - Low visibility operations
  - Transport of dangerous goods
  - Helicopter operations without an assured safe forced landing capability
  - Helicopter operations with night vision imaging systems
  - Helicopter hoist operations
  - Helicopter emergency medical service operations

III. Part Organisation Requirements (OR)

Your guide through the future rules

Part-OR Structure

Basic Regulation

Organisation Requirements Cover Regulation

Annex I Part-OR

OR.GEN*	OR.MS*	OR.OPS	OR.ATO*	OR.AC*
General Requirements	Management System	Air Operations	Approved Training Organisations	Aeromedical centers

AMC and GM to Part-OR

* NPA on OR general and FCL related parts – to be published end of Oct 2008

Subpart OR.OPS Structure

Annex I Part-OR

Subpart

OR.OPS

Section I - Operator requirements (OR.OPS.GEN)
Section II - Manuals, logs and records (OR.OPS.MLR)
Section III - Air operator declaration (OR.OPS.DEC)
Section IV - Air operator certification (OR.OPS.AOC)
Section V - Flight crew (OR.OPS.FC)
Section VI - Cabin crew (OR.OPS.CC)
Section VII - Technical crew (OR.OPS.TC)
Section VIII - Flight and Duty Time Limitations and Rest Requirements (OR.OPS.FTL)
Section IX - Security (OR.OPS.SEC)

AMC and GM to Subpart OR.OPS follow the IRs

Subpart OR.OPS Content

- Subpart OR.OPS contains additional and specific operator requirements for:
  - Non-commercial operators of complex motor-powered aircraft
  - All commercial operators
- They apply in addition to the common organisation requirements in OR.GEN and OR.MS
- These requirements correspond to chapter 8 of Annex IV of the BR Essential requirements for air operations

Subpart OR.GEN content

- Subpart OR.GEN is applicable to all organisations
  - **Scope**
  - **Designation of the competent authority**
  - **General requirements for certified organisations (application, changes, continued validity)**
  - **General requirements for organisations declaring**
  - **Findings**
  - **Acceptable Means of Compliance**

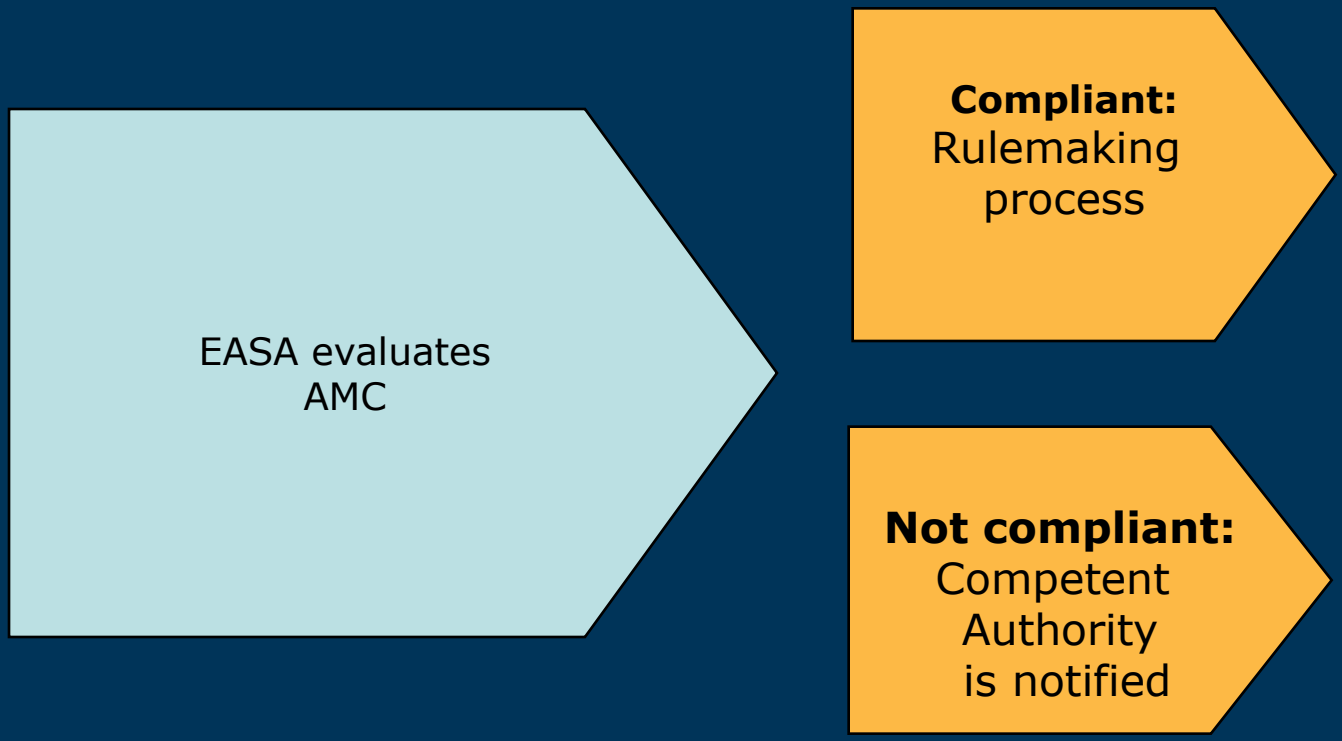
...

Subpart OR.GEN content

- Acceptable means of compliance
  - **Instead of the AMCs published by EASA, alternative means may be used to establish compliance with the IRs**

Subpart OR.GEN content

- Acceptable means of compliance



Subpart OR.MS content

- Subpart OR.MS is applicable to all organisations
  - **Requirements of integrated management system consisting of**
    - Safety Management System
    - Compliance Monitoring System
  - **Objective: to enable the organisation to fit all its different management systems into one (EASA only regulates safety)**
  - **Management system appropriate to the size, nature and complexity of the activities, and the hazards and associated risks inherent in these activities**

Subpart OR.MS content

- Other generic organisation requirements such as:
  - **Contracting or purchasing of services or products – responsibility of the contracting organisation**
  - **Personnel requirements, e.g. accountable manager**
  - **Facility requirements, e.g. appropriate for the tasks to be carried out**
  - **Record-keeping**
- Several AMCs catering for organisations of a different "size"

Subpart OR.OPS content

- Section I Operator requirements (OR.OPS.GEN)
  - Scope
  - Definitions
  - Operator responsibilities, e.g. compliance with rules, operational control, establishment of procedures, properly equipped aircraft and trained staff
  - Aircraft used in commercial and non-commercial operations – OPS Spec endorsement for non-commercial operations and OM supplement

Subpart OR.OPS content

- Section II Manuals, Logs and Records (OR.OPS.MLR)
  - Operations Manual
  - Minimum Equipment List
  - Operational Flight Plan - CAT
  - Records

Subpart OR.OPS content

- Section III Air operator declaration (OR.OPS.DEC)
  - Specification of responsibilities in case a management organisation manages the operation on behalf of the owner
  - Content of the declaration

Subpart OR.OPS content

- Section IV Air operator certification (OR.OPS.AOC)
  - Requirements for certificate holders
  - Process of AOC application, changes and continued validity
  - One certificate for all commercial operations = AOC
  - Ops Specs and privileges granted make the difference!
  - Leasing requirements

Subpart OR.OPS content

- **Section V Flight Crew (OR.OPS.FC)**
  - **Operator requirements for flight crew training**
    - Based on Subpart N of EU-OPS/JAR-OPS 3
    - Provisions affecting the privileges of a license holder transferred to Part-FCL, e.g. EU-OPS 1.960 Commander holding a CPL
    - Provisions regarding type rating training transferred to Part-FCL, if not operator specific, e.g. Zero Flight Time Training (ZFTT)

Subpart OR.OPS content

- Section VI Cabin Crew (OR.OPS.CC)
  - Operator requirements for Cabin crew training

In addition to OR.OPS:

- Part Cabin Crew (Part-CC)
  - Requirements for the individual person
- Part Medical (Part-MED)
  - Medical provision for cabin crew

Cabin crew

EU-OPS:

- Common minimum requirements leading to differences in interpretation and implementation
- Requirement for medical fitness to be assessed at regular intervals but no detailed common medical requirements - implementation ranges
  - from self-declaration by the individual
  - to medical certification according to national aviation rules
- Common training requirements but interpretation and implementation vary depending on the MS and on the operator

Cabin crew

- Training and operational requirements based on EU-OPS
- In addition, for commercial operations:
  - Evidence of training of the EU OPS *'initial safety training attestation'* is replaced by *'cabin crew attestation' that may be limited, suspended or revoked* [Art 8, para 5 (e)]
  - Compliance of cabin crew to be assessed by means of a certification process for CC attestations that are only issued and maintained valid when the training and medical requirements are, and continue to be, met
  - Member States may nevertheless task an operator or a training organisation to issue CC attestations provided they are specifically approved to do so [Article 8, para 4]

Cabin crew

- **Medical requirements:**
  - **Medical conditions described in the medical requirements in Part MED-for pilots have been scrutinised according to their relevance to the safe performance of cabin crew duties and required training**
  - **Many of the proposed requirements may be considered similar to those of Class 2 as regards the medical conditions identified, but most evaluations by specialists are not required**
  - **Very few stricter requirements as well as a relaxed requirement**

Cabin crew

- **Medical requirements:**
  - **Common medical requirements for all are considered appropriate since the duties and training required are the same, first to ensure an harmonised level of fitness and performance within all EU, subsequently to facilitate free movement from/to commercial and non-commercial operations.**
  - **The differences proposed for proportionality purposes are:**
    - Aero-medical examinations and assessments to be conducted:
    - by GMPs for CC non-commercial operations,
    - by an AME or AeMC for CC in commercial operations.
    - Proposed frequency after initial:
    - Significantly longer intervals/validity periods in non-commercial operations

Subpart OR.OPS content

- Section VII Technical Crew (OR.OPS.TC)
  - Common operator requirements for HEMS, Hoist and NVIS crew member training
  - May be revised in the future to take into account other specialised operations

Subpart OR.OPS content

- Section VIII Flight and Duty Time Limitations and Rest Requirements (OR.OPS.FTL)
  - Based on ICAO Annex 6, the essential requirements of Annex IV to the BR and EU-OPS

FTL: The Basis – ICAO

- **Annex 6 Part I**
  - **Definitions**
    - **Duty, Duty Period, Fatigue, Rest Period**
    - **FDP**: … commences when a crew member is required to report for duty … and which finishes when the aeroplane finally comes to rest and the engines are shut down at the end of the last flight …
  - **Fatigue management**
    - Operator shall establish flight time and duty period limitations and a rest scheme … to manage fatigue
    - variations require equivalent level of safety

FTL: The Basis – ICAO

- Annex 6 Part I
  - Fatigue management
    - State … specify the limitations applicable to the flight time, flight duty periods, duty periods and rest periods for flight crew
    - shall be based upon scientific principles and knowledge, where available …
  - Fatigue risk management systems
    - FRMS … may provide an alternative approach to fatigue management
    - FRMS … does not preclude … mandating a prescriptive fatigue management regulation as the primary means of compliance until an alternative system is established …

FTL: The Basis – ICAO

- Annex 6 Part II & Part III – General Aviation
  - The pilot-in-command shall be responsible … that a flight
    - will not be commenced if any flight crew member is incapacitated from performing duties by any cause such as injury, sickness, fatigue, the effects of alcohol or drugs
    - will not be continued beyond the nearest suitable heliport when flight crew members' capacity to perform functions is significantly reduced by impairment of faculties from causes such as fatigue, sickness, lack of oxygen

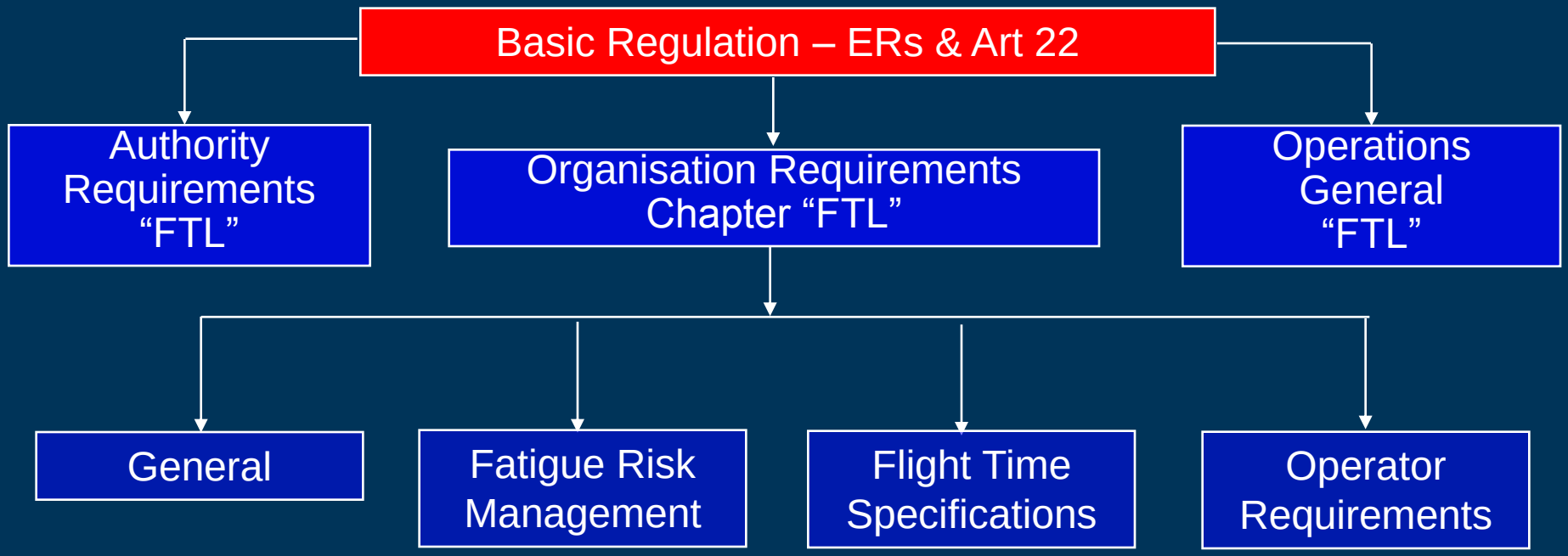
FTL: The Basis – Reg 216/2008 Art. 22

- **Air Operation Certification**
  With regard to flight time limitation
  - **Agency to issue certification specifications**
  - **Initially, the implementing rules shall include all substantive provisions of Subpart Q, taking into account the latest scientific and technical evidence**
  - **individual schemes which are acceptable to the Agency, or on which the Commission has taken a positive decision … shall be published**
  - **provisional derogations in unforeseen urgent operational circumstances or operational needs of a limited duration and non-repetitive nature, until the Agency expresses its opinion**

FTL: The Basis – Reg 216/2008 Art. 22

- Air Operation Certification
  - MS may approve individual flight time specification schemes
  - MS notify the Agency, the Commission and the other MS's that it intends to grant approval for an individual scheme
  - Agency shall, within one month, assess the individual scheme on the basis of a scientific and medical evaluation
  - Thereafter the MS may grant the approval, unless the Agency has proposed changes. Should the MS agree with these changes, it may grant the approval accordingly

FTL – IRs



Certification Specifications

FTL - Fatigue Risk Management

- An operator shall establish and maintain a fatigue risk management system:
  - FRMS policy
  - process for the detection, reporting, investigation and managing of fatigue risk
  - process for setting safety objectives and performance standards
  - clearly defined lines of safety accountability, including senior management
  - …

FTL - Fatigue Risk Management

- **Fatigue Risk Management System**
  - **… shall correspond to the size, nature and complexity of the flight time specification scheme, and the associated risks arising from crew member fatigue**

The Concept – FTL & CSs

Certification Specifications (CS)

- **FTL Schemes / Certification Specifications**
  - **based upon current scientific principles and knowledge, operational experience and best practices**
  - **supported by corresponding FRMS**
  - **appropriate for the particular type of operation**
  - **proactive fatigue management**

The Concept – FTL FRMS

‘Prescriptive FTL’ to FRMS – Maximum FDP

Prescriptive FTL:

An operator shall specify reporting times that realistically reflect the time for safety related ground duties as approved by the Authority.

The maximum basic daily FDP is 13 hours.

These 13 hours will be reduced by 30 minutes for each sector from the third sector onwards with a maximum total reduction of two hours.

…

Implementing Rule:

The operator shall specify reporting times that realistically reflect the time for safety related ground duties.

The operator shall specify a maximum basic daily FDP.

FTL Scheme (CS):

The maximum basic daily FDP is 13 hours.

These 13 hours will be reduced by 30 minutes for each sector from the third sector onwards with a maximum total reduction of two hours ……

Subpart OR.OPS content

- Section Section IX Security (OR.OPS.SEC)
  - Security programme
  - Cockpit security
  - Security training

IV. Part Authority Requirements (AR)

Your guide through the future rules

Part-AR Structure

Basic Regulation

Organisation Requirements Cover Regulation

Annex I Part-AR

AR.GEN*	AR.ATO*	AR.FCL*	AR.AeMC*	AR.AC*
General Requirements	Approved Training Organisations	FCL related AR	Aeromedical centers	Aeromedical certification

AR.OPS
Air Operations

AMC and GM to Part-OR

* NPA on OR general and FCL related parts – to be published end of Oct 2008

Part-AR content

- Part-AR contains
  - Requirements to be followed by the competent authorities
  - Ensures standardisation
  - Complements requirements for organisations

Subpart AR.GEN Content

- Subpart AR.GEN contains:
  - Section 1 – General
  - Section 2 – Management systems
  - Section 3 – Certification, oversight and enforcement

Subpart AR.GEN Content

- Collective and continuous oversight
  - Approval process
  - Oversight
  - Declaration process
  - Enforcement for persons
  - Activities in more than one Member State

Subpart AR.OPS Content

- Authority requirements provide grounds to work in a way which:
  - ensures better consistency between approvals of activities
  - enhances collaboration between EASA MS
  - provides oversight efficiency
  - identifies risks with a view to enhancing oversight

Subpart AR.OPS Content

- Subpart AR.OPS contains:
  - Specific requirements for operations – operator certification and declaration
  - Recognition of industry standards

V. The OPS NPA

What do you have to expect?

The OPS NPA

- The OPS NPA will be divided into 5 separate documents:
  - Explanatory note and Regulatory Impact Assessment (RIA)
  - Draft opinion and decision Part-OPS
  - Draft opinion and decision on Subpart OR.OPS of Part Organisation Requirements (OR)
  - Draft opinion and decision Subpart AR.OPS of Part Authority Requirements (AR)
  - Draft opinion and decision Part Cabin Crew (CC) and amendments to Part Medical relating to cabin crew

The OPS NPA

- **The explanatory note:**
  - Describes the background, structure and content of the Agency's proposal
  - Contains cross reference tables JARs-Parts
- **The Regulatory Impact Assessment (RIA):**
  - Studies the impact of the Agency's proposal

The OPS NPA

- The draft opinion and decision Part-OPS will contain:
  - The draft implementing rules Part-OPS (draft opinion)
  - The draft Acceptable Means of Compliance (AMC) and Guidance Material (GM) to Part-OPS (draft decision)

The OPS NPA

- The draft opinion and decision on Subpart OR.OPS (Organisation Requirements OPS) will contain:
  - The draft implementing rules Subpart OR.OPS (draft opinion)
  - The draft Acceptable Means of Compliance (AMC), Guidance Material (GM) and Flight Time Limitation Certification Specification (CS) to Subpart OR.OPS (draft decision)

The OPS NPA

- The draft opinion and decision on Subpart AR.OPS (Authority Requirements OPS) will contain:
  - The draft implementing rules Subpart AR.OPS (draft opinion)
  - The draft Acceptable Means of Compliance (AMC) and Guidance Material (GM) to Subpart AR.OPS (draft decision)

The OPS NPA

- The draft opinion and decision on Part-CC (Cabin Crew) and will contain:
  - The draft implementing rules Part-CC (draft opinion)
  - The draft Acceptable Means of Compliance (AMC) and Guidance Material (GM) to Part-CC (draft decision)
  - The draft implementing rules on the cabin crew medical as complement to Part-MED (Medical) (draft opinion)

The OPS NPA

- Publication is envisaged for 28 November 2008 on the EASA website

  http://www.easa.europa.eu/ws_prod/r/r_npa.php

Anyone can comment!

- Please send your comments using the EASA Comment Response Tool (CRT)

  http://hub.easa.europa.eu/crt/


Questions?

Thank you
for your attention