International Military Airworthiness Regulation Conference

Overview of the EMAR/DASR Airworthiness Structure and Terminology

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Purpose

• Provide an overview of
  – The genesis of European Military Airworthiness Requirements (EMAR) and
  – An implemented solution i.e. Defence Aviation Safety Regulation (DASR)

• Explain how harmonisation (Civil and Military) is achieved via the implementation of European Military Airworthiness Requirements (EMAR)
Harmonisation: EMAR/DASR Evolution

International Civil Aviation Organisation (ICAO)

Civilian International

Military Airworthiness Requirements

Military Regulation

Airworthiness Frame work
Complex & non-complex aircraft

Aviation Safety Frame work
Complex & non-complex aircraft

Militarised
(Airworthiness only)

EASA Regulations

European Military Airworthiness Requirements (EMAR)

Implemented EMAR in military aviation safety framework

For Example: Defence Aviation Safety Regulation (DASR)

European Defence Agency

International Civil Aviation Organisation (ICAO)
Defence Aviation Safety Regulation (DASR)

Or google “DASR” [top hit]
DASR Framework

- Based on EASA framework
- Regulations searchable
  - All at once
  - On the Internet
DASR Framework: Basic Regulation

- DASR BR establishes
  - the framework
  - Implementing Regulations (IRs)

- DASR BR purpose
  - Provides scope
  - Common rules

- DASR BR flexibility
  - Provides flexibility for special circumstances:
    - urgent safety measures and
    - compelling operational imperatives
DASR Framework: Airworthiness

- **Airworthiness**
  - Consistent with EASA/EMAR use of this term and ICAO definition of “Airworthy”
**DASR Framework: DASR 21 (Initial Airworthiness)**

- **Where in Framework?**
  - **Initial Airworthiness**

- **Purpose/Scope**
  - **Design and Production**
    - Certification of military aircraft and related products, parts and appliances
    - Focus on aircraft ‘Type’
      - F-35, C-17, C-130,
      - 737, a320, PC-21,
  - Organisational Approvals
    - Design (21J)
      - Military Design Organisational Approval (MDOA)
    - Production (21G)
DASR Framework: DASR M (Continuing Airworthiness)

DASR M

- Where in Framework?
  - Continuing Airworthiness

- Purpose/Scope
  - Continuing Airworthiness Management
    - Ensuring in-service aircraft remain Airworthy
    - Focus on Individual aircraft
      - Tail numbers: 01, 02, 03...

- Organisational Approval
  - Continuing Airworthiness Management Organisation (CAMO)
DASR Framework: DASR 145 (Continuing Airworthiness)

- Where in Framework?
  - Continuing Airworthiness

- Purpose/Scope
  - Maintenance of aircraft and components

- Organisational Approval
  - Aircraft Maintenance Organisation (AMO) DASR 145

DASR 145

- Implementing Regulations (IR)
- Basic Regulation
DASR Framework: DASR 66 (Continuing Airworthiness)

- Where in Framework?
  - Continuing Airworthiness
- Purpose/Scope
  - Maintenance Personnel Licencing
    - Qualifications
    - Training
    - Experience
    - Currency
- Organisational Approval
  - Nil

DASR 66

- Implementing Regulations (IR)
- Basic Regulation

Airworthiness

DASR Framework: DASR 66 (Continuing Airworthiness)
Airworthiness

DASR 147

- **Where in Framework?**
  - Continuing Airworthiness

- **Purpose/Scope**
  - Ensure quality of maintenance training

- **Organisational Approval**
  - Maintenance Training Organisation DASR 147
DASR Framework: DASR SMS

**DASR SMS**

- **Where in Framework?**
  - Aviation Safety Management Systems
    - Not in EMAR (yet?)

- **Purpose/Scope**
  - Ensure safety management is conducted
  - Implementation of Annex 19 (ICAO)

- **Organisational Approval**
  - Invoked within other IRs
    - 21G and J
    - M
    - 145
Military Air Operator (MAO)

Accountable Manager

Operations

Quality & Safety

CAMO
(Continuing Airworthiness Management)

145 AMO
(Maintenance)

21J MDOA
(Contractor)

145 AMO
(Contractor)

21J MDOA
(Design)

Typical Military Construct
Summary

• The Common Goal is **Harmonisation**
  – EASA, EMAR and DASR satisfy ICAO standards and recommended practices
  – Initial Airworthiness is the responsibility of a ‘21J’ approved organisation
  – Continuing Airworthiness is the responsibility of a ‘M’ approved organisation where:
    • ‘145’ approved organisations conduct maintenance, and
    • ‘147’ approved organisations ensure maintenance personnel training
      – Note: Maintenance Personnel training and experience is prescribed in ‘66’ (maintenance licencing)
  – Safety Management is ensured via EASA/DASR ‘SMS’ (not yet contained in (EMAR))
Questions

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