Continuing Airworthiness Conference 2016

Non Aircraft Elements Under DASR – What’s happening to ‘off aircraft’ stuff i.e. power carts and other ground support equipment post DASR?
Scope

- Why does DASR not contain GSE regulation?
- GSE interaction with DASR
- DASP Website – DASR FAQ
Operational Airworthiness nomenclature in DASR

Previous regulatory framework

- Technical airworthiness
- Operational airworthiness

DASR framework

Operational elements:
- Initial airworthiness
- Continuing airworthiness

Technical elements:
- Flight operations
- Air services
- Aerodromes
- Aviation Safety Management Systems

Operational Airworthiness nomenclature in DASR
Operational Airworthiness nomenclature in DASR

- Previous regulatory framework:
  - Technical airworthiness
  - Operational airworthiness

- DASR framework:
  - Flight operations
  - Initial airworthiness
  - Continuing airworthiness
  - Operational Airworthiness
  - AwBs
  - Air services
  - Aerodromes
  - Aviation Safety Management Systems

Defence Aviation Safety Program
Safety is a **Command** Responsibility *(WHS, Section 20/22)*

Command must *ensure* that hazards/risk reduced SFARP

- Explosives
- Fire
- Poor health monitoring
- Falling objects
- Electrical
- Noise
- Asbestos
- Lead
- Maintenance of plant
- Poor training
- Confined spaces
- Lifting
- Demolition
- Contaminated air
- Excavating
- Poor labels
- Heights

WHS Section 22-25

WHS Section 20/21

Defence Aviation Safety Program

DGTA-ADF DDAAFSD ACA
DefenceAA/DASA/DASP/DAR amplify WHS legislation

**Command** must **ensure** that hazards/risk reduced SFARP

**DefenceAA** **assures** Defence aviation safety

DefenceAA

DASA
- DGTA
- DDAAFS
- DACPA

DASP
- Policy / regulation
- Promotion/education
- Initial Safety Case
- Ongoing Assurance

**DASR**

No WHS obligations: specialist amplification of WHS provisions for Defence Aviation hazards

Defence Aviation Safety Program

WHS Section 22-25
WHS Section 20/21

Section 16
How does GSE fit in?

Command must ensure that hazards/risk reduced SFARP

WHS Section 22-25  WHS Section 20/21
Safety is a Command Responsibility (WHS, Section 20/22)

Command must **ensure** that hazards/risk reduced SFARP

- Explosives
- Asbestos
- Poor reporting
- Lead
- Poor training
- Maintenance of plant
- Fire
- Poor reporting
- Lead
- Poor training
- Falling objects
- Confined spaces
- Lifting
- Contaminated air
- Electrical
- Noise
- Radiation
- Oxygen
- Excavating
- Poor labels
- Heights

**GSE** - Not required to be amplified under aviation safety bubble (regulation). Covered by existing controls in the broader WHS management context

WHS Section 22-25

WHS Section 20/21

GSE - Not required to be amplified under aviation safety bubble (regulation). Covered by existing controls in the broader WHS management context.
Clear safety accountabilities under Legislation / Common Law

Command must *ensure* that hazards/risk reduced SFARP

DefenceAA *assures* Defence aviation safety

- CASG
  - HASD
    - DG
      - OC SPO
        - CO/CENGR
  - ACAUST (CAA)
    - FEGCDR
      - OC Wing
        - CO SQN

- CAF
  - DefenceAA
    - DASA
      - DASP
        - DASR

WHS Section 22-25

WHS Section 20/21

Section 16

No WHS obligations: specialist amplification of WHS provisions for Defence Aviation hazard

Defence Aviation Safety Program
Why does DASR not contain GSE regulation?

- Regulation / constraint is not needed to be applied from the Defence Aviation Safety Authority (DASA) to GSE

- That is not to say there is no regulation / constraint over GSE activities

- There is regulation and constraint from such sources as
  - the WHS Act,
  - acquisition practices which acquire GSE and related equipment from reputable organisations, maintenance and operating practices based on trained and experienced members using authoritative data from appropriate organisations,
  - configuration control procedures, and
  - contractual oversight from organisations such as CASG and CAMOs.

- DASA, and other contemporary aviation safety authorities, are comfortable that sufficient 'assurance' of safety is gained from the relevant organisations doing good acquisition / operation / maintenance / configuration control / oversight of GSE activities, that the DASA does not need to add extra constraint through regulations.
GSE Interaction with DASR

- **Military Air Operator (MAO)** have a vested interest in GSE from an output perspective, i.e.
  - Capability
  - Cost
  - Downtime

- **Continuing Airworthiness Management Organisation (CAMO)** have a regulatory responsibility related to GSE
  - Pre-flight inspection – all actions necessary to ensure the aircraft is fit to make the intended flight (AMC M.A.301(a)(1))
    - A control that all consumable fluids, gases etc. replenished prior to flight are of the correct specification, free from contamination, and correctly recorded
  - CAMO needs to ensure consumable fluids (fuel, oxy, hydraulic), services (power, air), meet specification (from aircraft ICA)

- **145 Approved Maintenance Organisation (DASR 145 AMO)** have a regulatory responsibility related to GSE
  - shall have available and use the necessary equipment, tools and material to perform the approved scope of work (145.A.40(a))
  - shall ensure that all tools, equipment and particularly test equipment, as appropriate, are controlled and calibrated according to an officially recognised standard at a frequency to ensure serviceability and accuracy. Records of such calibrations and traceability to the standard used shall be kept by the organisation (145.A.40(b))
GSE Interaction with DASR

• Examples:
  – Power cart
  – Fuel
  – Oxygen
  – Tool calibration
Where to get more information?

- **DASP Website:**

- **FAQ on website** under general section:
  - “How does GSE fit in DASR”
Questions?

It is Really Confusing

FOUR

NO!

THREE
Military Air Operator (FEG or Equiv)

Accountable Manager (FEG CDR)

- Operations
- Quality & Safety
- CAMO
- 145 AMO
- MDOA (Contractor)
- 145 AMO (Contractor)

MDOA (MTCH)
DASR Structure

Basic Regulation

Implementing Regulations (IR)

Initial Airworthiness
- DASR 21 (Aircraft Design, Production and Certification)
- DASR M (Continuing Airworthiness Management)
- DASR 145 (Requirements for Maintenance Organisations)
- DASR 66 (Military Aircraft Maintenance Licensing)
- DASR 147 (Aircraft Maintenance Training Organisations)

Continuing Airworthiness
- DASR OP.Gen
- DASR AO.Gen
- DASR ANS.Gen
- DASR SRoA.Gen

Operations Personnel
- DASR Aircrew
- DASR ARG (Authority Req for AO)
- DASR RPO (Org Req for AO)

Air Operations
- DASR SPO (Special Operations)
- DASR UAS (Unmanned AO System)
- DASR FTE (Flight Test)
- DASR ACD (Air Cargo Delivery)

Air Navigation Services
- DASR ATM (Air Traffic Mgmt)
- DASR CNS (Civil NAVADS)

Standard Rules of the Air
- DASR ADR.Gen
- DASR RFA (Authority Req for Aerodromes)
- DASR OFA (Operational Req for Aerodromes)

Aerodromes
- DASR OA.Gen
- DASR OFA (Operational Req for Aerodromes)
- DASR ACD (Air Cargo Delivery)

Aviation Safety Management Systems
- DASR SRoA.Gen
- DASR RoA
- DASR ADR.Gen
- DASR RFA (Authority Req for Aerodromes)
- DASR OFA (Operational Req for Aerodromes)

Airworthiness

Air Operations
- DASR Aircrew
- DASR ARG (Authority Req for AO)
- DASR RPO (Org Req for AO)

Implementing Regulations (IR)

DASR Structure

Airworthiness
Airworthiness Definition

• TAREG definition of airworthiness
  – Airworthiness is a concept, the application of which defines the condition of an aircraft and supplies the basis for judgement of the suitability for flight of that aircraft, in that it has been designed, constructed, maintained and operated to approved standards and limitations, by competent and authorised individuals, who are acting as members of an approved organisation and whose work is both certified as correct and accepted on behalf of Defence.

• EMAR (and DASR) definition of airworthiness
  – The ability of an aircraft, or other airborne equipment or system, to operate in flight and on ground without significant hazard to aircrew, ground-crew, passengers (where relevant) or to other third parties.

• Consistent with EASA use of this term and ICAO definition of “Airworthy”
  – The status of an aircraft, engine, propeller or part when it conforms to its approved design and is in a condition for safe operation.

“Focus on the Air Vehicle”
Indicative responsibilities of CAMO, 21J Design and 145 AMO against TAREG AEO and AMO