



Australian Government

Department of Defence

Defence Aviation Safety Authority

DASR 66 – Military Aircraft Maintenance Licensing

Aircraft Airworthiness and Sustainment Conference

Colonel Rob Crowe

19 July 2017



**Defence Aviation
Safety Authority**



DASR 66 - Overview

- History – current state of implementing the Regulation
- Schedule – expected activities over the next 18 months
- Future – possibilities post December 2018



DASR – History - Mandate

- In Sep 13, Air Force Board noted the current Defence airworthiness regulations no longer represented best international practice and directed:

“DGTA and DACPA to provide CAF with a brief in Dec 13 (outside the AFB committee process) that recommends migration of the current airworthiness regulations to a more efficient and contemporary military airworthiness regulatory system over the next five years.”
- In Nov 13, the Defence AA **directed** DACPA/DGTA to develop new Defence aviation safety regulation (DASR):
 - DASR published as a flat suite of regulations in a single IERM
 - DASR incorporate Better Practice Regulatory principles
 - DASR based on contemporary regulatory framework (ICAO definitions)
 - DASR incorporate full EMAR (and explore EASA Regulations)
 - DASR published by EOY2015
 - DASR fully implemented by EOY2018



DASR – History - Feasible Options

Option 2: Hybrid Regs #1

- Operational/Technical Airworthiness
- EMAR 145,M,21,147,66
- Low Feasibility
- Moderate effort



Option 4: DASR

- ICAO Definitions
- EMAR 145,147,66, M, 21
- High Feasibility
- Substantial effort

Option 1: DGTA Only

- Operational/Technical Airworthiness
- EMAR 145, M, 21
- High Feasibility
- Minimal effort

Option 3: Hybrid Regs #2

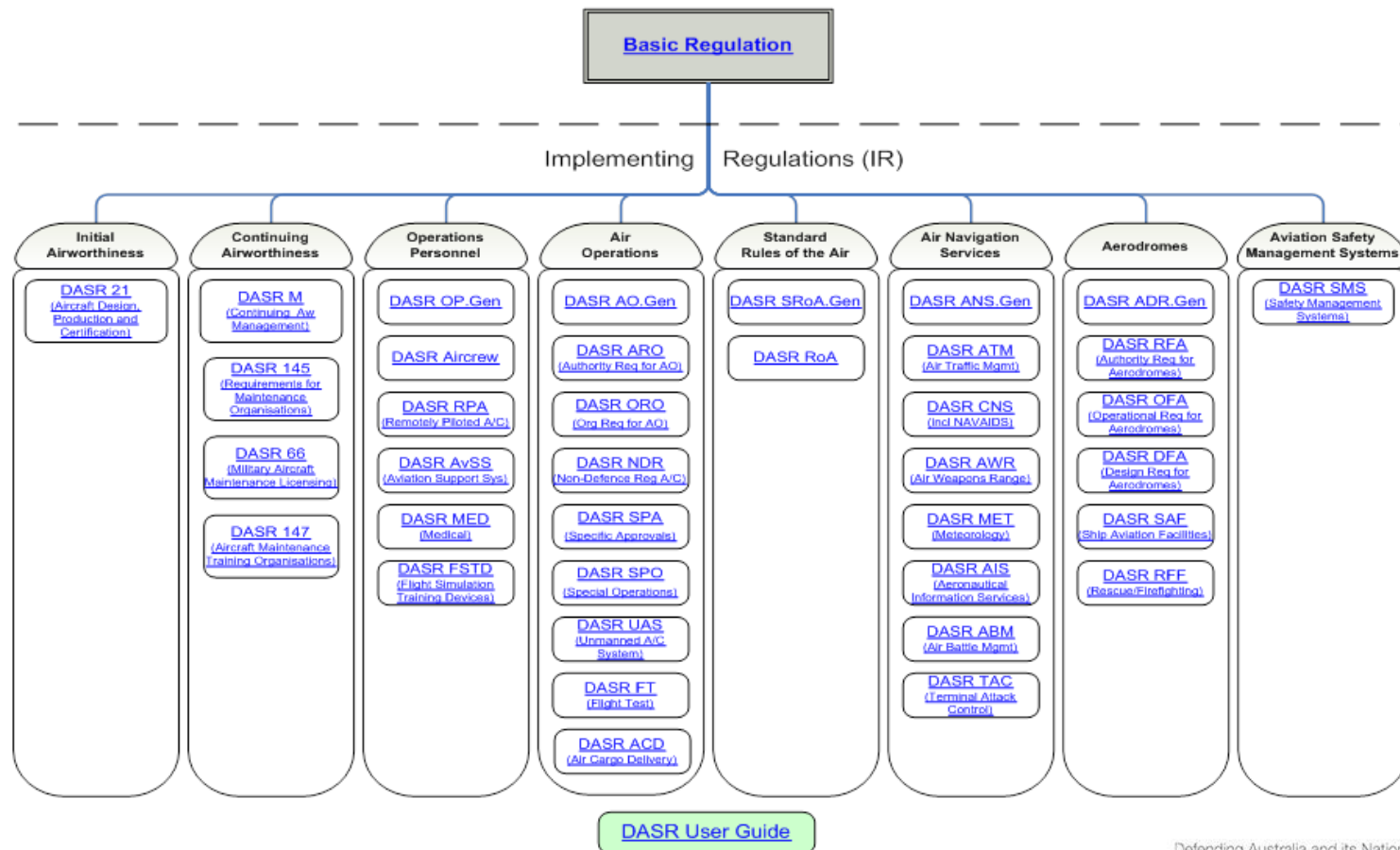
- ICAO Definitions
- EMAR Pts 145, M, 21
- Moderate Feasibility
- Substantial effort





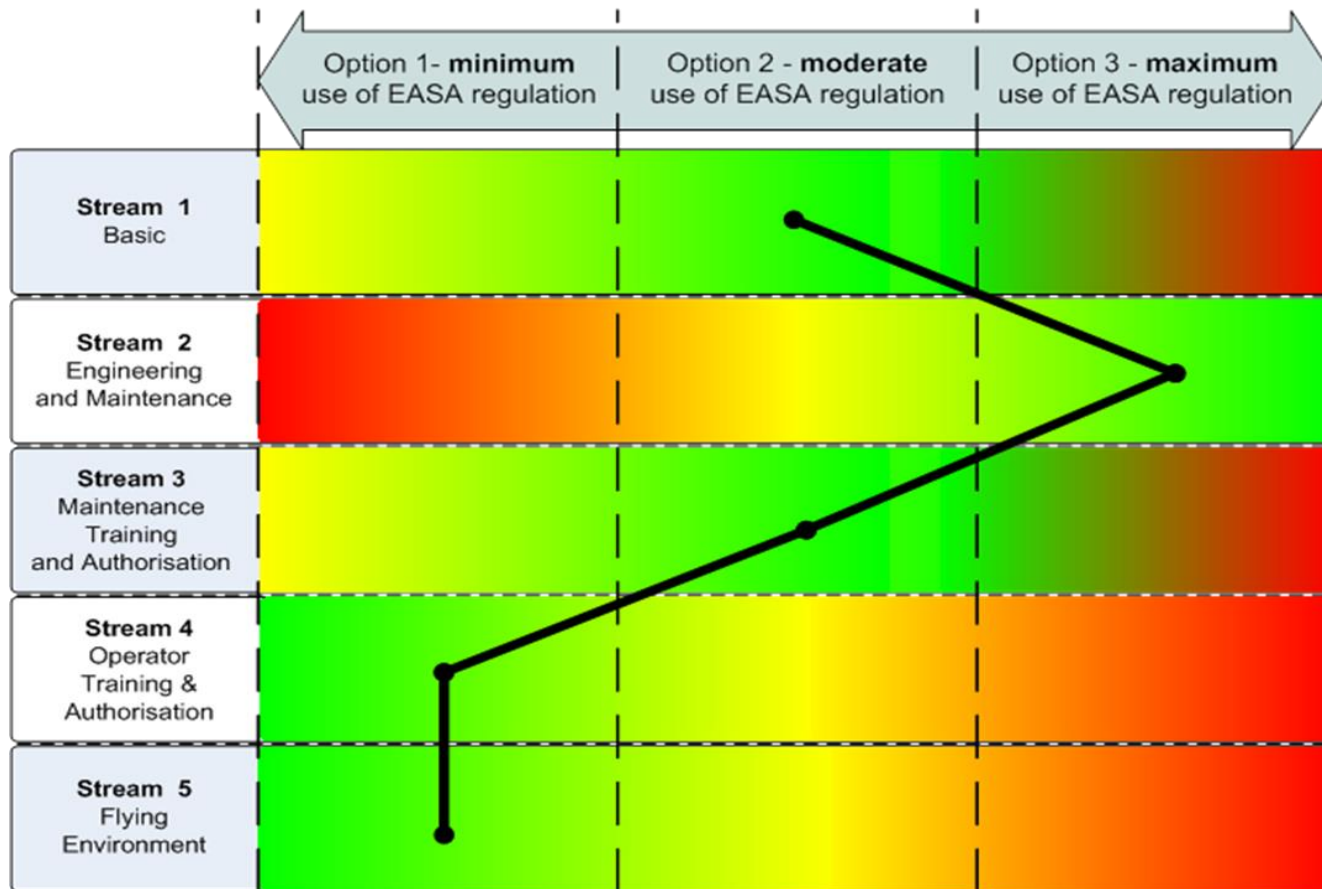
<http://www.defence.gov.au/DASP/Docs/Manuals/8000-011/DASRWeb/index.htm>

Defence Aviation Safety Regulation (DASR)





DASR – History - Adoption & Adaption

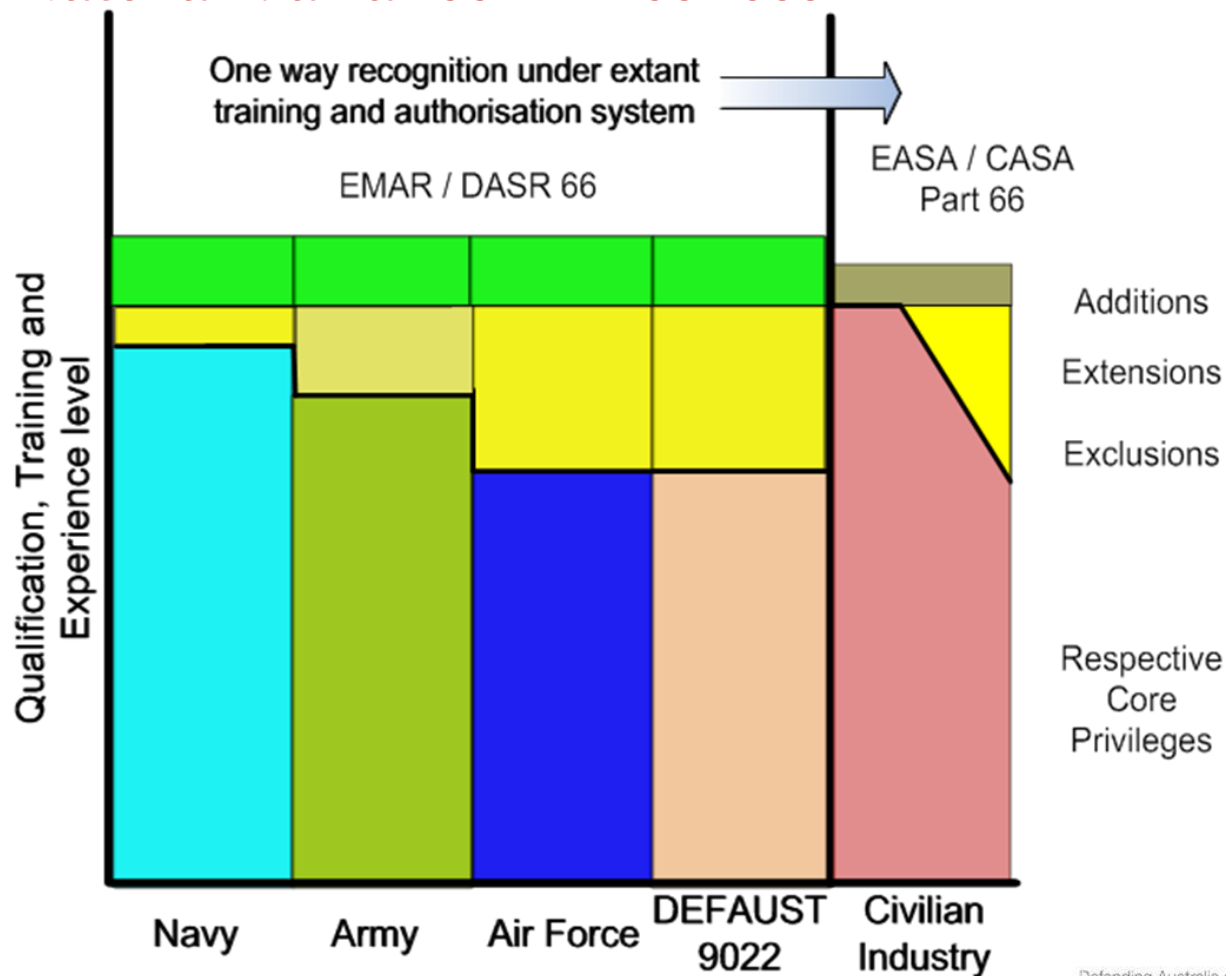


DASR 66 – History - What it is ...

- DASR 66 defines the Military Aircraft Maintenance Licence (MAML); stating the requirements for licence application, issue and continuation
- A MAML reflects the competencies and proficiencies of a Technician
- A MAML is issued by the Defence Aviation Safety Authority (DASA)
- A MAML will be issued based on your Record of Training and Employment
- A MAML will be PMKeys/DefenceOne reportable
- A MAML does mean that you are benchmarked against an international, contemporary and defensible standard
- A MAML is composed of Core Privileges and Extensions; depending on qualifications, training and experience, individuals will have differing Core Privileges and Extensions
- A MAML will be up-issued as you gain more competencies and proficiencies if they are licensable
- A DASR 145 Quality Manager will authorise you for maintenance activities based on your Record of Training and Employment
- A DASR 145 Quality Manager will authorise you to sign a CRS for an aircraft, based on your licence scope



DASR 66 – Natural Variance in Licences





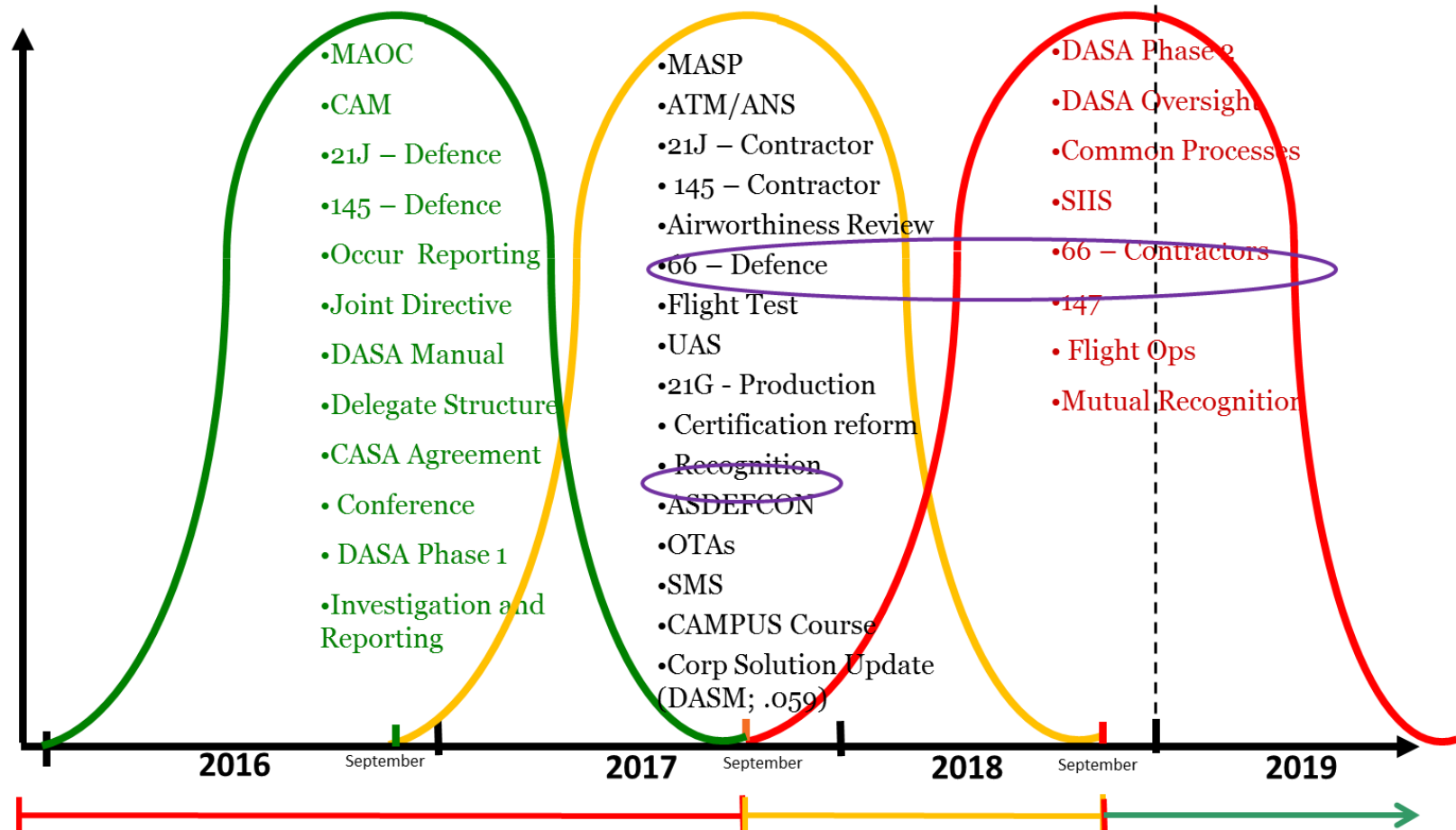
DASR 66 – History - What it is not ...

- DASR 66 **does not** change Trade Structures; Trade Structure changes can be accommodated by DASR 66 and the MAML
- A MAML **does not** impact remuneration
- A MAML **does not** mean you can work on VH (non-State) aircraft
- A MAML **does not** require the removal of Exclusions to work or issue CRS on State Aircraft; if you are competent to work on aircraft now and issue certificates of release to service (CRS), then your MAML will reflect that competence.
- A MAML **does not** prevent the use of SCT or cross-trade authorisations








DASR - Schedule - Campaign



DASR – Schedule - Phase 1 & Phase 2

- **Phase 1: Lock in current safety (Low risk / low reward)**
 - Minimal change to existing structures, plans, contracts
 - Controlled transition, educate progressively
 - ‘Lock in’ current levels of safety
 - Transition pace can be quick
 - All Defence orgs ‘cut over’ on 30 Sep 16
 - Interface with old regulatory system minimised
- **Phase 2: Exploit full DASR (Low risk / high reward)**
 - Having preserved current levels of safety;
 - Evolve management systems
 - Educate and change culture
 - Exploit benefits in a manner / rate that suits organisation
 - Exploit in combination with other reforms with integrated plans that can be properly resourced

DASR 66 – Schedule - Milestones

- 25 Jan 17 – NPA 01/2017 released the first draft DASR 66 
- 30 Apr 17 – Feedback on NPA 01/2017 
- 30 Jun 17 – DASR 66 promulgated 
- From Jun 17 – **Draft** Military Aircraft Maintenance Licences (MAML) issued to ADF maintainers for review and correction
- Sep 17 – corrected **Draft** MAML issued to ADF maintainers
- Dec 17 – Defence Industry maintainers applications ‘open’
- Mar 18 – Defence Industry maintainers applications ‘closed’
- Apr 18 - DASA generates **Draft** MAMLs to Industry maintainers for review
- May/Jun 18 – Industry applicants repechage **Draft** MAMLs
- Jul/Aug 18 – DASA issues MAML V1.0 to successful applicants
- Sep 18 – ADF and Defence Industry maintainers hold MAMLs

Nb. New entrants to ADF & Defence Industry processed in parallel as they arise

DASR 147 – Schedule - Milestones

- Jul 18 - Draft DASR 147 released
- Jul 18 - DASR 147 awareness training
- Sep 18 – Final version of DASR 147 released

Note 1. The requirements of the Australian Skills Quality Authority's (ASQA) Standard for RTOs are very similar to DASR 147 requirements. Any organisation delivering technical aviation training which is compliant with ASQA's Standard should expect the transition to DASR 147 relatively straight-forward.

Note 2. The ADF is consolidating to a single Enterprise Registered Training Organisation (ERTO) to be known as the Defence RTO (DRTTO) over the period 1 Jul 17 to 31 May 19. The Air Force RTO transitions to the DRTTO in the period 1 Mar – 31 Oct 18.



DASR 66 & 147 – Future - What it can be ... first thoughts ...

- DASR 66 will evolve with international standards and remain contemporary
- DASR 66 Basic Knowledge Requirements follow EMAR, which follow EASA (after militarisation), which keeps track with new technology
- DASR 147 MTO are required to achieve relevant DASR 66 Knowledge Requirements, which keeps the training system contemporary
- As CASA moves CASR Pt 66 towards EASR, there will be greater commonality within Australia between DASR and CASR, noting that EMAR lag EASR



DASR 66 & 147 – Future - What it can be ... second thoughts?

- Where does the flexibility – lateral approach - exist?
 - ‘design house style’ within DASR 21J
 - ‘maintenance approach’ with DASR 145; ADF constrained by 7001.059
 - Globalisation via EASA ; philosophy, language/consensus, expectations, new ‘normal’
 - SMS; a paradigm that encapsulates operations, maintenance, design & regulation
 - Maintenance; Australian domestic convergence, to parallel Licences, to harmonised civil/military Regulation
 - CASA/DASA; harmonised regulation, mirror practices, ‘no gap’ in non-State/State aircraft
 - Australian Aerospace Sector; “more in common than not”
- Where does flexibility end?
 - At the point where national sovereignty – military power – is curtailed



DASR 66 & 147 – Future - What it can be ... more responsive?

- Leveraging technology?
 - remote supervision; First Person Viewpoint (FPV) technology, headcam, bot video link, eTool *control* with RFID, feedback-gloves, acoustic sensors
 - zonals by digital imaging & difference annunciation
 - health monitoring of individuals for alertness and duty cycle
 - Like remote medicine for SMEs, where could you push aircrew maintenance too?



UNCLASSIFIED

QUESTIONS



Defence Aviation
Safety Authority

UNCLASSIFIED

UNCLASSIFIED



Australian Government

Department of Defence

Defence Aviation Safety Authority



Defence Aviation Safety Authority

UNCLASSIFIED

DASR 66 - Activities

- **DASA**
 - Create, test and validate an automatic Authority Licence generation tool
 - Compile, issue and adjust draft MAMLs and issue first MAMLs
 - Identify, host and integrate the mature Authority Licence generation tool
 - Re-shape, educate and staff the Authority Licencing team (DASR 66) and MTO compliance team (DASR 147) within DASA
 - Communicate change to regulated ADF community; Technicians, Supervisors, Managers and Trainers
 - Communicate change to regulated Defence Industry community and their respective contracting authorities.
 - Optimise relationships with CASA and foreign Authorities
- **Technicians**
 - Review draft MAML, offer changes to the Authority in a timely manner, supported by evidence
- **Supervisors**
 - Assist Technicians in the review and repechage of their draft MAML
- **Managers/Commanders**
 - Identify activity that flow from DASR 66 within their own sphere of responsibility and take action to meet milestones
- **Trainers**
 - Identify activity that flow from DASR 66 within their own sphere of responsibility and take action to meet milestones