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<ul> <li>Course Program</li> <li>Morning: <ul> <li>Introduction</li> <li>What is a CAMO?</li> </ul> </li> <li>Continuing Airworthiness Management Exposition (CAME)</li> <li>Aircraft Maintenance Programme (AMP)</li> <li>Analysis of AMP</li> <li>Reliability Programme</li> <li>Accomplishment of Maintenance</li> <li>Coordination of Scheduled Maintenance</li> <li>Pre Flight Inspection</li> <li>Management of Defects</li> <li>Airworthiness Directives</li> <li>Modification, Repair and Inspection</li> </ul>	<section-header><section-header><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></section-header></section-header>
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Findings from the Nimrod Report	
<ul> <li>7 pillars of Nimrod:</li> <li>Responsibility</li> <li>Risk to life/operators input</li> <li>Challenge orthodox practices</li> <li>Have moral courage</li> <li>Leadership</li> <li>Just Culture</li> <li>Duty Holders (accountability vs. responsibility)</li> </ul>	
<ul> <li>The outcomes:</li> <li>Clear lines of accountability and responsibility</li> <li>Issues with outsourcing</li> <li>Assignment of risk</li> <li>Status of continuing airworthiness</li> </ul>	Defending Australia and its National Interests
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OFFICIAL Australian Government Department of Defence Defence Aviation Safety Authority **JOINT DIRECTIVE 21/2021** BY THE SECRETARY AND THE CHIEF OF THE DEFENCE FORCE THE DEFENCE AVIATION SAFETY FRAMEWORK Defence has a moral and legal obligation to ensure risks to the health and safety 1. of personnel arising from military aircraft operations are eliminated or otherwise minimised so far as is reasonably practicable. The basis for these safety obligations is found in Commonwealth work health and safety legislation, and in common law. 2. Military aviation is a unique and complex undertaking that necessitates the amplification of statutory work health and safety requirements for the Defence aviation context. This amplification of safety obligations and provision of the means to discharge them is achieved through the adoption of a structured aviation safety framework. ng Australia and its National Interests www.defence.gov.au OFFICIAL 11

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		DI	EFENCE AVIATIO	DN SAFETY FRAME	WORK – JD 21	/2021		
Source: Sea King Board of Inquiry Report [Independent] ASSURE: 'to give confidence, to reassure (implying a monitoring and reporting role)'	Approvals, Internet I	evel nsafety ndependent Av Aviati Operat	Defe viation Safety Revi DEFENCE A on ions	Chief of Air Force (Chief of Air Force ews VIATION SAFETY Initial & Continui Airworthiness	( AUTHORITY	Flight Safety	ion capability	ce Aviation Safety Board
ENSURE: 'to make sure, certain or safe (implying a responsibility to make it happen)'	Policy, Pro Certification, Oversight & E	Aerodrome Operator tion safety	Air Navigation Service Provider	Higher Comman Ailitary Air Opera	d Initial Airworthiness Organisations	Continuing Airworthiness Organisations	Safety Investiga	Governance - Defen
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DASR Framework	
<ul> <li>Operating Organisation – aka Military Air Operator (MAO)</li> <li>Conducts flight operations</li> <li>Manages the QMS/ASMS</li> <li>Has an associated Continuing Airworthiness Management Organisation (C</li> </ul>	AMO)
<ul> <li>DASR M – CAMO</li> <li>Individual aircraft configuration management</li> <li>Fleet maintenance planning</li> <li>Management/approval of modification/repairs onto individual aircraft</li> <li>Maintenance system – including release to service</li> <li>Airworthiness Reviews – product configuration sampling</li> <li>DASR 145 – Maintenance Organisation</li> <li>Maintenance of aircraft and components (inclusive of repair embodiment)</li> </ul>	Continuing rworthiness
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DASR Key Org	anisationa	l Appointmei	nts	
	MAO	DASR M	DASR 145	DASR 145
Accountable Officer		(Commonwealt) Accountable Manage	(Commercial) Accountable Manager (AM)	
Responsible Appointment		Continuing Airworthiness Manager (CAM)	Responsible Manager (RM)	Responsible Manager (RM)
Standards – Processes & People		Quality Manager (0	QM)	Quality Manager (QM)
Standards - Product		Airworthiness Review (AwR) Staff	NDT <u>RLevel</u> 3	NDT RLevel 3
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CAME - Contents	
Reference: DASR M.A.704(a)	
Accountable Manager's Statement (M.A. 704)	
Scope of CAMO Services (M.A.704)	
<ul> <li>Management Positions and Employees (M.A. 706)</li> </ul>	
Organisational Chart	
<ul> <li>List of Airworthiness Review Staff</li> </ul>	
• Facilities (M.A.705)	
Procedures	
CAME amendment procedures	
List of approved AMPs	
<ul> <li>List of all contractors/tasked organisations</li> </ul>	
<ul> <li>Names of all supported MAOs</li> </ul>	Defending Australia and its National Interests www.defence.gov.au
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Documentation				
References: DASR M.A.708, M.A.709, 145.A.45, 21.A.449, Glossary				
• When undertaking any continuing airworthiness activity, t persons engaged in the activity must have access to applicable and current data, including maintenance data, from the (M)TC holder/DASR 21J.	he			
<ul> <li>The CAMO must have a system to maintain the currency of the maintenance data.</li> </ul>				
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What is an AMP	
Reference: DASR: M.A.302, Appendix I to AMC M.A.302	
AMP contains:	
<ul> <li>Details of all maintenance to be carried out</li> </ul>	
<ul> <li>Scheduled maintenance</li> </ul>	
<ul> <li>Associated procedures</li> </ul>	
<ul> <li>Standard maintenance practices</li> </ul>	
Frequency of maintenance	
<ul> <li>Specific tasks linked to type and operations</li> </ul>	
<ul> <li>Instructions issued by DASA (ADs)</li> </ul>	
<ul> <li>Instructions for Continuing Airworthiness (ICA)</li> </ul>	
<ul> <li>Additional instructions (Error capturing)</li> </ul>	
Pre-flight inspection tasks accomplished by maint pers	
Reliability programme	
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Certificate of Release to Service (CRS)
The CRS is an attestation made by authorised Certifying Staff that:
1. All maintenance ordered/tasked has been properly carried out, IAW
<ol> <li>There are no non-compliances which are known to affect flight safety.</li> </ol>
Achieved through:
1. Oversight and management of the maintenance, and
2. Assessment of the flight safety impact of the completed maintenance.
There are two types of CRS:
<ul> <li>A CRS for Aircraft, and</li> <li>A CRS for Components (Authorised Release Certificate/Form 1)</li> </ul>
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Auth	norised Release	Certificate			
R	aised for Compone	ents that have b	een	Manufact	ured (Block 13a)
DEFENCE A	VIATION SAFETY AUTHOR	ITY			DASR Form
1. Approving NMA	A Australian Government	2. AUTHORISE CERTIN	D RE FICAT	3. Form Tracking Number:	
4. Approved Organisation Name and Address:				5. Work Order/Contract/Invoice	
6. Item	7. Description	8. Part Number	9. Qty	10. Serial Number	11. Status/Work
12 Remarks 13a. Certifies that t approve non-app	the items identified above were manufactured sid design data and are in a condition for safe o proved design data specified in Block 12	in conformity to: operation	14a. □ Certific Certifie and des respect	DASR 145.A.50 Release ation Statement s that unless otherwise sp scribed in Block 12, was as to that work the items are	to Service Other regulation specified in Block 12 ecified in Block 12, the work identified in Block 11 compdished in accordance with DASR 143 and in considered ready for release to service.
13b. Authorised Si	ignature	13c. Approval/Authorisation Number	14b. Au (I	uthorised Signature Electronic signature on file)	14c.Approval/Authorisation Number
13d. Name		13e. Date (dd/mm/yyyy)	14d. Na	ame	14e. Date (dd/mm/yyyy)
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Authorised Release	Certificate			
Raised for components	following Com	pleti	on of Maiı	ntenance (block 14a)
DEFENCE AVIATION SAFETY AUTHOR	ITY			DASR Form
1. Approving NMAA Australian Government Department of Defence	2. AUTHORIS CERTI	ED RE FICAT	3. Form Tracking Number:	
4. Approved Organisation Name and Address:				5. Work Order/Contract/Invoice
6. Item 7. Description	8. Part Number	9. Qty	10. Serial Number	11. Status/Work
12 Remarks 13a. Certifies that the items identified above were manufactured approved design data and are in a condition for safe proved design data specified in Block 12	in conformity to: operation	14a. □ Certific Certifie and de	DASR 145.A.50 Release ation Statement scribed in Block 12, was a	to Service □ Other regulation specified in Block 1 pecified in Block 12, the work identified in Block 11 scoropilshed in accordance with DASR 145 and in
13b. Authorised Signature	13c. Approval/Authorisation Number	14b. Au	t to that work the items ar uthorised Signature Electronic signature on file)	e considered ready for release to service. 14c.Approval/Authorisation Number
13d. Name	13e. Date (dd/mm/yyyy)	14d. Na	ame	14e. Date (dd/mm/yyyy)
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What makes up a pre-flight?
<ul> <li>Walk around to inspect condition of aircraft, emergency equipment and stores for obvious signs of wear, damage or leakage.</li> </ul>
<ul> <li>Inspection of the aircraft's continuing airworthiness records.</li> </ul>
<ul> <li>Check consumable fluids and gases are correct specification, free of contamination and correct level.</li> </ul>
All doors and panels are securely fastened.
• Locks for control surfaces, landing gear, pitot/static covers, engine intake blanks, etc. have been removed.
Check aircraft external surfaces and engines are free from ice, snow, dust, sand etc.
Removal of safety/arming pins.
<b>Note:</b> Tasks such as oil and hydraulic fluid uplift and tyre inflation may be considered part of the pre-flight inspection.
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Management of Defects – Credible Data	
<ul> <li>Credible data is considered to be any instructions or information resources defined by the CAMO in the NMAA approved CAME that is required to retain the aircraft and/or related equipment in a condition for safe flight.</li> </ul>	r
The CAMO should articulate in the CAME who can use credible data.	
Credible data may include:	
– MEL/CDL	
<ul> <li>Maintenance Data as defined by DASR 145.A.45(b)</li> </ul>	
<ul> <li>OEM publications / Type certification data</li> </ul>	
<ul> <li>Designs or advice from the relevant design approval holder</li> </ul>	
<ul> <li>Field Service Representative data</li> </ul>	
<ul> <li>Flight operations advice</li> </ul>	
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Airworthiness Review Staff – QTE References: DASR M.A.707(a)1
Airworthiness Review Staff – QTE References: DASR M.A.707(a)1
Airworthiness Review Staff – QTE References: DASR M.A.707(a)1
References: DASR M.A.707(a)1
Qualifications
<ul> <li>Maintenance licence or Engineering degree</li> </ul>
<ul> <li>Formal aeronautical maintenance training</li> </ul>
<ul> <li>Regulations</li> </ul>
– Procedures
- CAME
<ul> <li><u>General</u> familiarisation course for the aircraft</li> </ul>
<ul> <li>Maintenance methods</li> </ul>
Experience
<ul> <li>5 years experience in continuing airworthiness</li> </ul>
Position within CAMO with appropriate responsibilities
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What is Recognition?	
<ul> <li>Recognition is an acknowledgement by DASA that another <u>aviation</u> <u>authority</u> applies a credible and defensible safety assurance framework.</li> </ul>	
<ul> <li>Recognition is a means of complying with DASR and applies across multiple DASR clauses.</li> </ul>	
<ul> <li>Example for DASR M: A 'maintenance organisation accepted by DASA' (DASR M.A.201(g)) is a maintenance organisation accessed through recognition provisions.</li> </ul>	
• Recognition is of a framework and <u>NOT</u> individual elements within that framework e.g. maintenance personnel authorisations or ARCs etc.	t
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Benefits and Examples of Recognition	
<ul> <li>Avoids duplication of work, reducing costs</li> <li>Promotes operational flexibility</li> <li>Leverages other authorities' expertise</li> <li>Extends safety assurance across orgs/facilities DASA can't access or to security restrictions etc.</li> <li>Keeps DASA in touch with international best-practice in military avial safety assurance.</li> </ul>	lue tion
<ul> <li>Examples relevant to CAMOs/CAM Service Providers</li> <li>Consumption of data for repairs and minor modifications</li> <li>Aircraft maintenance and Certificate of Release to Service (CRS)</li> <li>Acceptance of components from production or maintenance</li> </ul>	rests yuau
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DASA issues a recognition certificate for each recognised authority. Each recognition certificate has an underlying set of terms telling the regulated community:	F
<ul> <li>what is possible through recognition (scope &amp; conditions); and</li> </ul>	
<ul> <li>how to ensure the suitability of arrangements (caveats).</li> </ul>	
Ensure Community exploits recognition provisions Community exploits recognition	
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	Design &	Production		Maintenance		Operations	
	Certification	Aircraft	Components	Aircraft	Components	operations	Certificate
DND/CAF Technical Airworthiness Authority	×	X	X	х	×		To be Issue
DSAÉ / DGA	Х	Х	Х	Х	Х		<u>v1.1</u>
LufABw	Х	Х	Х	Х	Х		<u>v1.2</u>
DAAA	Х	Х	Х	Х	Х		<u>v2.1</u>
DAPA	Х						<u>v1.0</u>
MAA-NLD	Х			Х	Х		<u>v1.1</u>
New Zealand Defence Force	Х	X	Х	X	Х	Х	<u>v2.0</u>
orts are av	ailable fro	m DAS	A on reque	est.	Defendin	Ig Australia and its Nation www.defen	il Interests ce.gov.au
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	thorities – R DND/CAF Technical Airworthiness Authority DSAE / DGA LufABW DAAA DAPA MAA-NLD New Zealand Defence Force	Cognition Certi thorities – Recognition DND/CAF Technical Airworthiness Authority DSAE / DGA LufABW AAA DAPA X MAA-NLD X New Zealand Perece Force Force	Dasa I         Documentation         Dasa I         thorities - Recognition         Image: Certification Aircraft         DND/CAF       Processor         Design & Certification Aircraft       Processor         DND/CAF       X       X         DSAE/DGA       X       X         DAAA       X       X         DAAA       X       X         DAPA       X       X         Defence       X       X         Force       X       X         Dorts are available from DAS.       OFFIC	Design & Production         Design & Production         Interview of the second state         DND/CAF         DND/CAF         Certification         DID/CAF         X       Production         Airworthiness         Authority       X       X       X         DSAE / DGA       X       X       X         DAAA       X       X       X         DAAA       X       X       X         DAPA       X       X       X         Defence       X       X       X         Ports are available from DASA on reque	DASA Website         DASA Website         thorities – Recognition         Image: Certification Aircraft Components Aircraft Components Aircraft Airworthiness Authority       Y       X	Dasa Website         thorities - Recognition       Production       Maintenance         DND/CAF       X       X       X         DSAE / DGA       X       X       X         DAAA       X       X       X       X         DAAA       X       X       X       X         DAAA       X       X       X       X         MAA-NLD       X       X       X       X         MAA-NLD       X       X       X       X         Defence       Force       X       X       X         Defence       SoffCIAL       Soff       Soff </td <td>Dasa Website         thorities - Recognition       Production       Maintenance       Operations         DND/CAF       X       X       X       X         DAA       X       X       X       X         DAAA       X       X       X       X         DAAA       X       X       X       X         DAPA       X       X       X       X         MAA-NLD       X       X       X       X         Defence       Force       X       X       X       X         Defence       Force       X       X       X       X       X         Defence       Fo</td>	Dasa Website         thorities - Recognition       Production       Maintenance       Operations         DND/CAF       X       X       X       X         DAA       X       X       X       X         DAAA       X       X       X       X         DAAA       X       X       X       X         DAPA       X       X       X       X         MAA-NLD       X       X       X       X         Defence       Force       X       X       X       X         Defence       Force       X       X       X       X       X         Defence       Fo



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Products/Services not covered by DASA Approval or Recog	gnition
<ul> <li>Recognition is not applicable where a service provider's personne processes and products are not oversighted by an aviation author</li> </ul>	l, prity.
<ul> <li>Where a CAMO wishes to use products/services that are not cover by DASA Approval or Recognition, the CAM is responsible for:</li> <li>assessing the suitability of the product/services for Australian Defence application, and</li> <li>Obtain DASA approval of the arrangement (via updating the CAME).</li> </ul>	ed
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Findings by the NMAA (DASA)	
Levels of findings:	
<ul> <li>Level 1 – any non-compliance with the DASR requirements which lowers the safety standard and seriously hazards flight safety.</li> </ul>	
<ul> <li>Level 2 – any non-compliance with the DASR requirements which lowers the safety standard and possibly hazards flight safety.</li> </ul>	
<ul> <li>Level 3 – Any non-compliance or potential non-compliance, identified by objective evidence, which could lower the safety standard and possibly hazards flight safety.</li> </ul>	
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DASR M Summary
<ol> <li>The size of a CAMO will depend on the number/complexity/age of the aircraft it manages</li> </ol>
<ol> <li>The CAMO's quality system must establish procedures for the management and control of sub-contracted organisations and independently monitor sub-contracted tasks.</li> </ol>
<ol> <li>The CAMO and operating organisation's quality and safety management system must be integrated (and can be combined with subordinate organisations)</li> </ol>
<ol> <li>The DASA compliance assurance program of a Defence CAMO also encompasses sub-contractor organisations</li> </ol>
<ol> <li>The operator is responsible for addressing DASA findings of non- compliance of sub-contractors.</li> </ol>
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