

Module 10 – Aviation legislation – Syll	LEARNING OUTCOMES	Regulatory References and Study Material
STELADUS	LEARNING OUTCOMES	Regulatory References and Study Material
10.1 Regulatory framework		
 Role of International Civil Aviation Organisation (ICAO) 	Understanding the suite of maintenance regulations 1. Understand the role of ICAO.	 See: ICAO website Department of Infrastructure, Transport, Regional Development and Communications website
2. Role of CASA	2. Understand the role and functions of CASA. Overview of CASA's Regulatory Philosophy.	 2. See: <u>Civil Aviation Act 1988</u> – Part II <u>CASA</u> website <u>CASA's Regulatory framework</u> <u>CASA regulatory philosophy and</u>
 Relationship between Parts 21, 42, 66, 145 and 147 of CASR 1998 	3. Understand the interactions and applicability of each of CASR Parts: 21, 42, 66, 145 and 147.	 The Minister's <u>Statement of Expectations</u> for CASA. 3. See: <u>CASA Regulatory Structure (bubble diagram)</u> <u>CASRs (1998) - Parts: 21, 42, 66, 145 and 147</u>
 Relationship with other aviation authorities. 	4. Understand the relationship between CASA and other National Aviation Authorities (NAAs).	 4. See: <u>Department of Infrastructure, Transport,</u> <u>Regional Development and Communications</u> website Australian participation in ICAO activities Standards and Recommended Practices (SARPs) – ICAO Annexes 6 and 8 to Chicago Convention



10.2 Part 66 Certifying staff		– Bilateral agreements
 Detailed understanding of Part 66 of CASR 1998 	Maintenance licensing – certification of maintenance – maintenance training (Part 66 and Part 147)	1. See:
	 Understand Part 66: Regulations Manual of Standards (MOS) Acceptable Means of Compliance and Guidance Material (AMC/GM) Licence categories and subcategories (Cat A, Cat B1 & B2 and Cat C licences) Aircraft type ratings Licence exclusions Training (Basic knowledge and basic practical experience requirements). 	 Part 66 of CASR 1998 Part 66 Manual of Standards (MOS) Part 66 AMC/GM document
	 Understand licence scope, privileges and responsibilities (including the effect of exclusions on a licence). Who can certify for maintenance and how to certify? 	 2. See: Section 66.A.20 – Privileges, of Part 66 MOS Section 66.A.45 of the Part 66 MOS Part 66 guidance material (Advisory Circulars) – AC 66-04 – AC 66-05 – AC 66-08 - Part 66 aircraft engineer licences and privileges
	 Overview of Part 147 Maintenance training organisations 	 Part 66 licensing training, see:





10.3 Part 145 – Approved maintenance organisations		 Part 147 of CASR 1998 Part 147 Manual of Standards (MOS) Part 147 AMC/GM document
1. Detailed understanding of Part 145 of CASR 1998	 Approved Maintenance Organisations (AMO) 1. Understand Part 145: Regulations Manual of Standards (MOS) Acceptable Means of Compliance and Guidance Material (AMC/GM) 2. Understand the Part 145 AMOs: scope of approval (i.e. approval rating and maintenance capability) privileges that apply to an approval rating The AMOs Exposition document 	 See: Part 145 of CASR 1998 Part 145 Manual of Standards (MOS) Part 145 AMC/GM document Part 145 Manual of Standards (MOS)
	 3. Requirements for an AMO organisation, including requirements in relation to: Facilities and Personnel requirements Employee qualifications Role & requirements for certifying employees Certification authorisations Certification of maintenance Training and assessment Tools, equipment and materials 	 3. Part 145 Manual of Standards (MOS) Part 145 guidance material (Advisory Circulars) – AC 145-02 Human Factors guidelines for aircraft maintenance – CASA resource – <u>Human Factors for</u> <u>Engineers</u>



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	 Acceptance and Storage of Components and Parts. Fabricating parts - FITCOM Maintenance data Maintenance records Quality Management System Safety Management System (SMS) Human Factors (HF) training for personnel 	
10.4 Air operations		
 Air Operators' Certificates Operators' responsibilities, in particular regarding continuing airworthiness and maintenance Aircraft maintenance program MEL/CDL Documents to be carried onboard Aircraft placarding (markings). 	 Air operations – sectors and rules 1. AOCs and operating certificates 2. Understanding operator's responsibilities for 	 See: Division 2 of Part III of the <u>Civil Aviation Act</u> <u>1988</u> CASA - Air Operator's Certificate (AOC) suite of Manuals Vols 1 to 4: <u>Volume 1- General matters</u> <u>Volume 2 - Flying operations</u> <u>Volume 3 - Airworthiness</u> <u>Volume 4 - Specialist areas</u>
	continuing airworthiness and maintenance	 2. See CASR Parts (and their relevant MOS): Part 90 – Additional airworthiness requirements Part 91 – General operating and flight rules Part 119 – Australian air transport operators— certification and management Part 121 – Australian air transport operations— larger aeroplanes Part 132 – Limited category aircraft Part 133 – Australian air transport operations— rotorcraft Part 135 – Australian air transport operations— smaller aircraft Part 137 – Aerial application operations—other than rotorcraft



3. Aircraft maintenance program	 Part 138 – Aerial work operations See: CASA - Air Operator's Certificate (AOC) Manual: Volume 3 – Airworthiness CASR Subpart 42.J CASR Part 42 MOS Chapter 2
4. MEL/CDL	 4. See: Part 91 Subpart 91Y – Minimum equipment lists
5. Documents to be carried onboard	 5. See: Part 91, Division 91.C.3 – Flight related documents
6. Understand the requirements for nationality marks, registration marks and aircraft registration plates, interior & exterior emergency exits and lighting (aircraft markings), and operating aircraft with inoperative equipment (placarding)	 6. See: Part 45 – Display of nationality marks, registration marks and aircraft registration identification plates Part 45 MOS Part 90 Part 90 Part 90 MOS Part 91, Division 91.C.6 (r. 91.150)
4	 MEL/CDL Documents to be carried onboard Understand the requirements for nationality marks, registration marks and aircraft registration plates, interior & exterior emergency exits and lighting (aircraft markings), and operating aircraft



10.5 Certification of aircraft, parts and appliances		
(a) General	Certification of aircraft, parts and appliances	(a) General
 General understanding of Parts 21, 23, 25, 27 and 29 of CASR 1998. (b) Documents Certificates of Airworthiness Restricted Certificates of Airworthiness Special Flight Permits Certificates of Registration Noise Certificates Weight Schedules Radio Station Licences and Approvals 	 Overview and understanding of CASR Part 21 Overview of certification & airworthiness standards – CASR Part 23, 25, 27 & 29. Production Approval Holders (PAH) – obligations and privileges Design Approval Holders – 21.M Authorised Persons/Delegates for design changes, 21.J Design Organisations – obligations and privileges Aircraft Type Certificates (TC) and Type Acceptance Certificates (TC) Supplemental Type Certificates (STC) Certificates of Airworthiness (CofA) – explain Standard Certificates and Special Certificates Special Flight Permits Aircraft Registration – Certificate of Registration Noise Certificates (Air Services Australia) 	 See: Part 21 – Certification and airworthiness requirements for aircraft and parts



	5.	 Noise certificates Airservices Australia – <u>Aircraft noise regulations</u> <u>Air Navigation (aircraft noise) Regulations 2018</u> Definitions, Part 1 Division 1 and Division 2, Part 2
	6.	 Weight schedules <u>Subpart 121.J</u> – Weight and balance, of Part 121 of CASR <u>CAO 100.7</u>
	7.	 Radio station licences and approvals Part 64 – Authorisations for non-licensed personnel Subpart 64.A—Preliminary Definition – aeronautical radio operator certificate Subpart 64.B—Transmission on aeronautical radio frequencies Subpart 64.C—Taxiing aeroplanes



10.6 Continuing airworthiness		
 (a) 1. Detailed understanding of Part 21 of CASR 1998 (b) 1. Detailed understanding of Part 42 of CASR 1998 	 Continuing airworthiness ADs, SoD, AD, AMOCs CASA Airworthiness Bulletins, SAIBs, SIBs, Advisory Material Failures, Malfunctions and Defects Defect reporting, Maintenance error reporting, unapproved parts reporting Understanding Part 42 – CAMO, CRS, Airworthiness Review (ARC) and findings Approved Maintenance Program (AMP) Inspection Schedules- Manufacturer's schedules/checklists ICA – Maintenance Data Data used for Mods and Repairs Performance rules (standards) for carrying out maintenance Continuing Airworthiness Records – Logbooks, Task cards, workshop work packs, component log cards/records Control of unserviceable components, acceptance of parts Form 1 – Authorised Release Certificate, CRS for components, Certificates of Conformity 	 (a) 1. See: Part 21 – Certification and airworthiness requirements for aircraft and parts, of CASR Part 21 Advisory Circulars (b) See: Part 42 – Continuing airworthiness requirements for aircraft and aeronautical products, of CASR Part 42 MOS Part 42 AMC/GM AC 20-06 – Defect reporting Continuing Airworthiness is based upon the standards set in the initial Certification and approvals made under Part 21



10.7 Applicable national and international requirements		
 (a) Management programs, maintenance checks and inspections Master Minimum Equipment Lists (MMEL), Minimum Equipment Lists (MEL), Dispatch Deviation Lists Airworthiness Directives Service Bulletins, manufacturers' service information Modification and repairs Maintenance documentation: maintenance manuals, structural repair manuals, illustrated parts catalogue, etc. (b) Continuing airworthiness Minimum equipment requirements — test flights ETOPS, maintenance and dispatch requirements All weather operations: categories 2 and 3 operations. 	 Maintenance – other requirements - Australia/international Functional Checks, Operational checks, daily inspections, After-flight inspections, Scheduled Maintenance – A, B, C, D Checks Maintenance Planning, Scheduling Service Bulletins (SBs) - Alert SB, SBs for: engine conversion, modifications and repairs Service Letters Maintenance documentation, Maintenance Release, Flight log/Tech log MMEL, MEL, CDL Test flights, Maintenance Check flights ETOPS, EDTO, dispatch requirements All weather operations, De-icing, servicing & replenishing tasks Trend monitoring, Reliability reports/data Maintenance Control System & Manual Pilot/owner Maintenance 	 (a) 1. See: Part 42 of CASR <u>Subpart 42.G</u> - Continuing airworthiness management organisations (CAMO) <u>Part 42 MOS</u> <u>Part 42 AMC/GM</u> <u>Subpart 42.C</u> <u>Subpart 42.J</u> <u>Subpart 42.D</u> - Maintenance Division 42.D.4 Division 42.D.5 Division 42.D.6 Division 42.D.7 <u>Subpart 42.H</u> <u>Part 145</u> - Continuing airworthiness-Part 145 approved maintenance organisations (AMO) Part 145 MOS 2. MMEL, MEL, CDL(DDL) see: <u>Part 91</u> - General operating and flight rules Subpart 91Y - Minimum equipment lists CDL - r.42.015 of CASR 3. See: ADs - <u>CASR Part 39</u>, r.42.120 of CASR



	 Service Bulletins and Manufacturer's service instructions are also considered to be 'maintenance documentation / approved maintenance data'. Compliance with an SB may form part of the requirement of an
	Airworthiness Directive (AD). • See Section 4.7 of <u>AC 39-01</u>
5.	 See: <u>Subpart 21.M</u> – Designs of modifications of, and repairs to, aircraft, aircraft engines, propellers and appliances, of CASR <u>Part 42</u> of CASR r.42.125 r.42.325 Part 145 MOS 145.A.65 (b) 7.
(b)	See: • Part 21 of CASR • r.21.008 – meaning of technical data • Part 42 of CASR • r.42.130 • r.42.150 • Part 145 MOS • 145.A.45 – ICA, including maintenance data • 145.A.47 • Part 3 – definitions, of Parts 42, 66, 145 and 147 of CASR • Clause 10 – meaning of instructions of continuing airworthiness (ICA) • Clause 15 – meaning of maintenance data





 <u>Part 42</u> – Continuing airworthiness requirements for aircraft and aeronautical products, of CASR Civil Aviation Order (<u>CAO 100.5</u> – General requirements in respect of maintenance of Australian aircraft).
 2. See: Subpart 21.B (r.21.035, r.21.039) of <u>Part 21</u> of CASR Subpart 21.F (r. 21.127) of Part 21 of CASR <u>AC 21-47</u> Flight test safety
 3. See: Division 121.C.1 of Subpart 121.C of Part 121 of CASR (r.121.030, r.121.035) Part 121 MOS
 4. See: CAT II, III operations <u>AC 139-19</u> – All weather operations at aerodromes Definition - instrument approach classifications (AIP) – CAT I, CAT II, CAT IIIA, CAT IIIB & CAT IIIC CASA's CNS-ATM resource kit <u>Chapter 5</u> – aircraft equipment GPS receiver/navigational avionics equipment i.e. GNSS, ADS-B, etc Receiver standards –certified to technical standards i.e. TSO, ETSO, ATSO