Comparison EASR, FAR & CASR/MoS Part 145 (FAR Part 43 Required)

This comparison is based on feedback from current holders of foreign AMO approvals as well as CASR Part 145 who have shown support for harmonisation with the FAR Part 145 since it was modernised. EASR/CASR Part 145 is seen as too limited and restrictive to use for wider than airline operations. CASR Part 145 is not compatible with or harmonious with other Australian business requirements. In addition, the modernisation of international Part 23 airworthiness standards that started last year, changed the aircraft certification split from the current 9 seat, 5700 Kg to 18 seat, 5182 Kg.

This CASR Part 23 aeroplane split aligns with the previous AME licencing split for a specific licence rating – also recommended to be resurrected.

ICAO AMO Requirements	FAR AMO Requirements	EASR AMO requirements	CA(S)R AMO Requirements
Approved AMO Annex 6 Parts 1 & 3 Airlines & Helicopters. Optional in GA. Independent LAME elsewhere	Part 145 applicable to airlines • Includes a quality control 'Inspectorate' **FBO/SASO** can be used elsewhere Independent A&P/IA	Part 145 applicable airlines • Includes a quality control 'Inspectorate' **Part 42 F** can be used elsewhere Independent LAME	Part 145 applicable airlines & helicopters – proposed charter, etc. • No quality control 'Inspectorate' **CAR 30** applicable elsewhere Independent LAME

Assumption: AME licencing is critical to a proper review of CASR Part 145. The aeroplane new Part 23 design's (1) risk level (e.g., maximum number of passengers 1-18), and (2) performance level (e.g., low or high speed). Part 23 aeroplane designs will be assigned a "certification" level and a "performance" level. Part 66 specific aircraft ratings should include transport category and high performance level Part 23 aircraft.

The current regulatory system is not providing the expected safety standards that is required under the Convention of International Civil Aviation, (aka Chicago Convention), nor does the CA[S]R regulatory system harmonise with above international aviation safety standards. Ever since the change from ANRs/ANOs, regulatory requirements have added red tape and bureaucracy instead of improving safety and productivity.

The introduction of CASR Part 145 introduced new demarcation issues and regulatory terminology of "complex" and "specialist" maintenance that did not exist. This had been overcome in 1988 with "multi-skilling" and "qualified". Obviously, technical drafters have little experience in employer W&OHS responsibilities.

Maintenance is maintenance and all maintenance has to be done by "qualified persons". This includes some tasks that may need employee "specific" training because it is currently not part of the current AME training. Many AMEs have attained those "qualifications". The onus is on the employer under W&OHS legislation to have "qualified" employees trained for the purpose. FAR has the same approach. There is no need for regulations/standards to define complex or specialised maintenance – there are no safety issues to be addressed. Aircraft/component maintenance work might be multifaceted to the inexperienced but, it is just aircraft/component maintenance tasks carried out by skilled and qualified staff.

The main purpose for this comparison is those CASA approved AMOs that also currently hold, EASA and/or FAR 145 approvals, have all stated the FAR system has the most clarity and standardisation for business, whereas EASR approval is dependent on the interpretations of EASA inspectors. A similar comment also relates to CASR Part 145 interpretations – lack of standardisation because of lack of clarity in the regulation and MoS.

Recommendations are based on enhancing safety whilst improving productivity to meet government's policies of reducing regulation and red tape.

The following comparison between CASR/EASR/FAR Part 145 clearly supports those holding foreign approvals that the FAR wording is mature and business compatible and is written in a manner that reduces individual interpretations. FAR Part 145 also removes demarcation issues contained in CASR Part 145.

This review has one recommendation: That FAR Part 145 be the basis for amending CASR Part 145 and its MoS amendment to adopt CAR 30 concepts.

CASA must return to applying quality systems to maintenance organisations as the FAA has now implemented.

Other Legislation

In Australia, Safe Work Australia and Workplace Health and Safety (WHS) authorities in each state or territory have responsibilities for enforcing WHS/OHS legislation (acts and **regulations**). As a business owner, you must meet the WHS requirements set out in the acts and **regulations** in your state or territory. For instance, NSW WHS/OHS legislation is based, like other States, on the Federal model legislation; the State government's promulgated NSW Code of Practice demonstrates why CASR Part 145 should simply adopt FAR Part 145. State's WHS/OHS legislation requires safety management systems that meet or exceed the ICAO standard. CASA should concentrate on aircraft and component safety and not try to set conflicting requirements to other Australian business related legislation. Has CASA staff done any training in other commonwealth/state business legislation affecting safety and workplace conditions?

WHS requirement

- ***competency assessment***, means an assessment in relation to the completion of a specified VET course to carry out a class of high risk work.
- ***competent person*** means: a person who has acquired through training, qualification or experience the knowledge and skills to carry out the task.

Competition Legislation Fair Trading requirements.

Productivity Liability Legislation Includes liability, consumer rights, import/export, etc.

Environmental Legislation Covers facility, handling of Hazmat, disposal, etc.

Privacy Legislation: Covers collection, access, and storage of personal information and communication.

Employment Legislation Permanent, casual, temporary employment requirements, wages, contracts, etc.

Financial reporting Taxation, business loans, investment, etc.

Aviation legislation: Should be additional to the above and aircraft/component specific.

And many more, including local council and airport owner/operator demands.

Major Issues:

1. The current scope of CASR Part 145/MoS has the same flaw as CAR 30 in that it was written with aircraft maintenance only without including component maintenance as does EASR Part 145 and FAR Part 145.
2. EASR Part 145 includes aspects that many advanced countries include in corporation legislation, etc. as above.
3. FAR Part 145, on the other hand, is written with more focus of the work that an organisation can perform. In other words, written for the AMO.
    a. FAR Part 145 is the most modern Part 145 globally and addresses small AMOs better than EASR Part 145.
    b. FAR Part 145 is more performance based than EASR or CASR approach – places more responsibility on the organisation.
4. CASR/MoS Part 145 is over prescriptive and imposes more costs that EASR or FAR. FAR is the most cost efficient Part.
5. Definitions/processes applied by CASR/MoS have not been ICAO definitions and apply unique approach to regulatory requirements.
6. All are in excess to the ICAO standards attached at Appendix A.

Comparison EASR, FAR & CASR/MoS Part 145

EASR	FAR	CASR (MoS)	Conceptual problems
145.1 General For the purpose of this Part, the competent authority shall be: 1. for organisations having their principal place of business in a Member State, the authority designated by that Member State, or; 2. for organisations having their principal place of business located in a third country, the Agency.	**§145.1 Applicability.** This part describes how to obtain a repair station certificate. This part also contains the rules a certificated repair station must follow related to its performance of maintenance, preventive maintenance, or alterations of an aircraft, airframe, aircraft engine, propeller, appliance, or component part to which part 43 applies. It also applies to any person who holds, or is required to hold, a repair station certificate issued under this part.	**145.A.05 Applicability of this MOS** (a) This is the MOS for Part 145 of the Civil Aviation Safety Regulations 1998 (CASR 1998). (b) Unless otherwise defined in this MOS, words and phrases have the same meaning as in Part 145 of CASR 1998. (c) This MOS sets out the requirements to be met by an organisation approved under Part 145 of CASR 1998 to perform maintenance of aircraft and aeronautical products and provide training and assessment of employees of the organisation.	FAR wording is compatible with Australian business requirements under other legislation including W&OHS requirements for qualified and experienced personnel to do work (maintenance). FAR Part 43 required to make FAR Part 145 work correctly.
145.A.10 Scope This Section establishes the requirements to be met by an organisation to qualify for the issue or continuation of an approval for the maintenance of aircraft and components.		**145.A.10 Scope of the AMO** An AMO's exposition must include a clear description of its line maintenance and base maintenance capabilities at each location at which the AMO intends to provide maintenance services.	**Same mistake as 1988 CAR 30** – does not clarifies component maintenance. EASR addresses both.
	§145.3 Definition of terms. For the purposes of this part, the following definitions apply: (a) ***Accountable manager*** means the person designated by the certificated repair station who is responsible for and has the authority over all repair station operations that are conducted under part 145, including ensuring that repair station personnel follow the regulations and serving as the primary contact with the FAA. (b) ***Article*** means an aircraft, airframe, aircraft engine, propeller, appliance, or component part. (c) ***Directly in charge*** means having the responsibility for the work of a certificated repair station that performs maintenance, preventive maintenance, alterations, or other functions affecting aircraft airworthiness. A person directly in charge does not need to physically observe and direct each worker constantly but must be available for consultation on matters requiring instruction or decision from higher authority. (d) ***Line maintenance*** means— (1) Any unscheduled maintenance resulting from unforeseen events; or (2) Scheduled checks that contain servicing and/or inspections that do not require specialized training, equipment, or facilities.	**145.A.12 Definitions** In this MOS: **AEL** means an aircraft engineer licence as defined in the CASR 1998 Dictionary. **aircraft surface finishing** means creation of an appropriate presentation finish on the exterior surface of an aircraft or an aeronautical product (the surface) without interfering with any operational part of the aircraft or aeronautical product except its exterior presentation surface and includes all of the following: 1. preparation of the surface; 2. stripping off previous finishes from the surface; 3. removal of light corrosion that is present only on the surface; 4. pre-treatment of the alloy surface of the aircraft or aeronautical product for other surface finishing; 5. application of paint and other specialist surface finishes to the surface; 6. sealing aircraft and aeronautical product exterior structural seams; 7. application of aircraft registration markings, national markings, organisational logos, decals or stencils; 8. polishing the surface.	Delete most definitions. Change AEL to LAME. Aircraft surface finishing is a basic maintenance task. Can be performed as a specialised service. Most definitions are not required and only add red tape.

Comparison EASR, FAR & CASR/MoS Part 145

EASR	FAR	CASR (MoS)	Conceptual problems
		AMO means a Part 145 organisation as defined in the CASR 1998 Dictionary.	leave
		author of design data means a type certificate holder, supplementary type certificate holder or the author of any design data relating to repairs or modification of an aircraft or aeronautical product issued under Part 21 of CASR 1998.	Not interested in the "author" only interested is it approved. Delete.
		complex maintenance, for paragraph 145.A.45 (e), means maintenance by an AMO for which the competency required is held by more than 1 AMO employee.	Delete These tasks are just maintenance done by qualified maintenance personnel
		human factors principles, in relation to maintenance, means principles that deal with the interaction between human performance and maintenance system components that are applied to improve safety of air navigation.	Leave
		human performance, in relation to maintenance, means the human capabilities and limitations that have an effect on the safety of air navigation, such as fitness, health, stress, fatigue, drugs and alcohol, and work environment.	Same as WHS Part of AME training
		ICAO Annex 1 aircraft maintenance [engineer] licence means a licence of a type mentioned in Chapter 4 of Annex 1, Personnel Licensing, to the Chicago Convention.	This demonstrates CASA lack of use of ICAO terminology.
		main location, for an AMO, means each of the following locations: 1. except for the purpose of fitting a non-standard part to an aircraft in accordance with regulation 42.440 of CASR 1998 — a location that is permanently occupied by the AMO for the provision of maintenance services; 2. a location at which the AMO provides base maintenance services; 3. any other location stated by the AMO in its exposition to be a main location.	Another over complicated description that does nothing for safety. Delete.
		on-wing engine maintenance means aircraft engine maintenance (the maintenance) that meets each of the following requirements: 1. the engine remains fitted to the aircraft during the maintenance; 2. the maintenance is only carried out within the scope of the maintenance services that may be provided by an AMO with a category B rating; 3. the maintenance is not such that the AMO considers that the engine must be removed from the aircraft for the maintenance to be safely carried out; 4. the maintenance is only provided for in the maintenance data of the holder of the type certificate, foreign type certificate, supplemental type certificate or foreign supplemental type certificate.	Standard maintenance practice for over 40 years – does not need regulatory definition. It is how the maintenance is performed.

EASR	FAR	CASR (MoS)	Conceptual problems
		Note For AMO category ratings, see Appendix I. **a single maintenance event** means that maintenance required for an aircraft that has been grounded because it had an unforeseen defect. **SMS implementation plan** means an AMO's written plan: 1. for full implementation of the SMS: (i) by a specified date; and (ii) at all levels of the organisation; and (iii) in accordance with the safety policy and objectives; and 2. containing at least the following: (i) the specific goals to be met to achieve full SMS implementation by the specified date; (ii) the timetable for meeting each of the specific goals; (iii) the steps to be taken to achieve each of the specific goals; (iv) the timetable for meeting each of the steps; (v) details of the following, as agreed by CASA in writing for this subparagraph: (A) the specified date for full implementation of the SMS; (B) each specific goal, and its timetable, to achieve full SMS implementation by the specified date; (C) each step to be taken, and its timetable, to achieve each of the specific goals within its timetable. *Note Under the definition of an SMS implementation plan, adjustments to dates, goals, steps or timetables must also be the subject of CASA's written agreement to ensure that the plan as a whole is always one agreed to by CASA.* **specialist maintenance** means that maintenance which is described in paragraph 145.A.30 (f).	Delete, does nothing for safety as it can be applied to other than a grounding. This implements a paperwork system, not a SMS. Refer WHS requirements for a SMS Needs a rethink. Makes CASA responsible, not the organisation. Bad decision. Replace with "**Specialised** maintenance"
145.A.10 Scope This Section establishes the requirements to be met by an organisation to qualify for the issue or continuation of an approval for the maintenance of aircraft and components. **145.A.20 Terms of approval** The organisation shall specify the scope of work deemed to constitute approval in its exposition (Appendix II to this Part contains a table of all classes and ratings).	**§145.5 Certificate and operations specifications requirements.** (a) No person may operate as a certificated repair station without, or in violation of, a repair station certificate, ratings, or operations specifications issued under this part. (b) The certificate and operations specifications issued to a certificated repair station must be available on the premises for inspection by the public and the FAA.	**145.A.10 Scope of the AMO** An AMO's exposition must include a clear description of its line maintenance and base maintenance capabilities at each location at which the AMO intends to provide maintenance services.	FAA Ops Specs, same as CAR 30 certificate "conditions". These are reduced if FAR AMO uses a Capability List. EASA wording has better clarity
	§145.12 Repair station records: Falsification, reproduction, alteration, or omission. (a) No person may make or cause to be made:		This is a strict liability provision and probably the

EASR	FAR	CASR (MoS)	Conceptual problems
	(1) Any fraudulent or intentionally false entry in: (i) Any application for a repair station certificate or rating (including in any document used in support of that application); or (ii) Any record or report that is made, kept, or used to show compliance with any requirement under this part; (2) Any reproduction, for fraudulent purpose, of any application (including any document used in support of that application), record, or report under this part; or (3) Any alteration, for fraudulent purpose, of any application (including any document used in support of that application), record, or report under this part. (b) No person may, by omission, knowingly conceal or cause to be concealed, a material fact in: (1) Any application for a repair station certificate or rating (including in any document used in support of that application); or (2) Any record or report that is made, kept, or used to show compliance with any requirement under this part. (c) The commission by any person of an act prohibited under paragraphs (a) or (b) of this section is a basis for any one or any combination of the following: (1) Suspending or revoking the repair station certificate and any certificate, approval, or authorization issued by the FAA and held by that person. (2) A civil penalty. (3) The denial of an application under this part.		only one in FAR Part 145 relating to aircraft safety. It should be in CASR Part 145 in its entirety.
	Subpart B—Certification		
145.A.15 Application An application for the issue or variation of an approval shall be made to the competent authority in a form and manner established by such authority.	**§145.51 Application for certificate.** (a) An application for a repair station certificate and rating must be made in a format acceptable to the FAA and must include the following: (1) A repair station manual acceptable to the FAA as required by §145.207; (2) A quality control manual acceptable to the FAA as required by §145.211(c); (3) A list by type, make, or model, as appropriate, of each article for which the application is made; (4) An organizational chart of the repair station and the names and titles of managing and supervisory personnel; (5) A description of the housing and facilities, including the physical address, in accordance with §145.103;	**145.025 Applying for approval** (1) A person (the applicant) may apply to CASA for approval as a Part 145 organisation. (2) The application must: (a) be in writing; and (b) be signed by a person who is, or proposes to be, the applicant's accountable manager. (3) The application must include the following: (a) a copy of the applicant's proposed exposition; (b) the approval rating sought by the applicant for: (i) each kind of aircraft or aeronautical product for which the applicant proposes to provide maintenance services; and	FAR is an expansion of CAR 30 but includes component maintenance. FAR includes quality control manual "specialised"

Comparison EASR, FAR & CASR/MoS Part 145

EASR	FAR	CASR (MoS)	Conceptual problems
	(6) A list of the maintenance functions, for approval by the FAA, to be performed for the repair station under contract by another person in accordance with §145.217; and (7) A training program for approval by the FAA in accordance with §145.163. (b) The equipment, personnel, technical data, and housing and facilities required for the certificate and rating, or for an additional rating, must be in place for inspection at the time of certification or rating approval by the FAA. However, the requirement to have the equipment in place at the time of initial certification or rating approval may be met if the applicant has a contract acceptable to the FAA with another person to make the equipment available to the repair station at any time it is necessary when the relevant work is being performed. (c) In addition to meeting the other applicable requirements for a repair station certificate and rating, an applicant for a repair station certificate and rating located outside the United States must meet the following requirements: (1) The applicant must show that the repair station certificate and/or rating is necessary for maintaining or altering the following: (i) U.S.-registered aircraft and articles for use on U.S.-registered aircraft, or (ii) Foreign-registered aircraft operated under the provisions of part 121 or part 135, and articles for use on these aircraft. (2) The applicant must show that the fee prescribed by the FAA has been paid. (d) An application for an additional rating, amended repair station certificate, or renewal of a repair station certificate must be made in a format acceptable to the FAA. The application must include only that information necessary to substantiate the change or renewal of the certificate. (e) The FAA may deny an application for a repair station certificate if the FAA finds that: (1) The applicant holds a repair station certificate in the process of being revoked, or previously held a repair station certificate that was revoked; (2) The applicant intends to fill or fills a management position with an individual who exercised control over or who held the same or a similar position with a certificate holder whose repair station certificate was revoked, or is in the process of being revoked, and that individual materially contributed to the circumstances causing the revocation or causing the revocation process; or	(ii) each kind of specialist maintenance that the applicant proposes to provide; (c) if the applicant intends to provide permitted training for its employees — each aircraft type, aircraft system or subset of an aircraft system for which the applicant intends to provide training.	The FAR has more clarity and is similar to the CAR 30 approach. It also covers AMOs in foreign countries. Note that FAR Part 145 is only tied to Part 121 & 135 aircraft/components outside US Reasons for denying an applicant should be included

EASR	FAR	CASR (MoS)	Conceptual problems
	(3) An individual who will have control over or substantial ownership interest in the applicant had the same or similar control or interest in a certificate holder whose repair station certificate was revoked, or is in the process of being revoked, and that individual materially contributed to the circumstances causing the revocation or causing the revocation process. (f) If the FAA revokes a repair station certificate, an individual described in paragraphs (e)(2) and (3) of this section is subject to an order under the procedures set forth in 14 CFR 13.20, finding that the individual materially contributed to the circumstances causing the revocation or causing the revocation process.		
	§145.53 Issue of certificate. (a) Except as provided in §145.51(e) or paragraph (b), (c), or (d) of this section, a person who meets the requirements of subparts A through E of this part is entitled to a repair station certificate with appropriate ratings prescribing such operations specifications and limitations as are necessary in the interest of safety. (b) If the person is located in a country with which the United States has a bilateral aviation safety agreement, the FAA may find that the person meets the requirements of this part based on a certification from the civil aviation authority of that country. This certification must be made in accordance with implementation procedures signed by the Administrator or the Administrator's designee. (c) Before a repair station certificate can be issued for a repair station that is located within the United States, the applicant shall certify in writing that all "hazmat employees" (see 49 CFR 171.8) for the repair station, its contractors, or subcontractors are trained as required in 49 CFR part 172 subpart H. (d) Before a repair station certificate can be issued for a repair station that is located outside the United States, the applicant shall certify in writing that all employees for the repair station, its contractors, or subcontractors performing a job function concerning the transport of dangerous goods (hazardous material) are trained as outlined in the most current edition of the International Civil Aviation Organization Technical Instructions for the Safe Transport of Dangerous Goods by Air.	**145.030 Issuing approval** (1) Subject to regulation 11.055, CASA must approve an applicant as a Part 145 organisation if CASA is satisfied that: (a) the applicant has an exposition that complies with the requirements specified in the Part 145 Manual of Standards; and (b) the applicant has facilities, equipment, materials, maintenance data and tools that are suitable for: (i) providing maintenance services for the kinds of aircraft or aeronautical product for which the applicant proposes to provide maintenance services; and (ii) providing the **specialist maintenance** that the applicant proposes to provide; and (iii) providing the permitted training that the applicant proposes to provide for its employees; and (c) the facilities, equipment, materials, maintenance data and tools mentioned in paragraph (b) comply with the requirements specified in the Part 145 Manual of Standards; and (d) the applicant has nominated an individual for each of the following positions in the organisation: (i) accountable manager; (ii) quality manager; (iii) safety manager; and (e) the applicant has nominated an individual for each position of responsible manager in the organisation; and (f) each individual nominated for a position mentioned in paragraph (d) or (e) is appropriately qualified to hold the position; and	If CASA is satisfied means meeting individual inspector's variable interpretations. FAR system is different in that if you meet the requirements of the FAR then you are "entitled" to the certificate. Rule by the Regulator. "Specialised" is the international term.

EASR	FAR	CASR (MoS)	Conceptual problems
		(g) the audit requirements of the applicant's quality management system will be carried out by a person who is not: (i) the accountable manager; or (ii) a responsible manager. Note Under regulation 201.004, an application may be made to the Administrative Appeals Tribunal for review of: (a) a decision refusing to issue, or cancelling, suspending or varying, an approval; or (b) a decision imposing a condition on an approval. (2) If CASA decides to approve an applicant as a Part 145 organisation, CASA must determine: (a) the approval rating for each kind of aircraft or aeronautical product for which the applicant is approved to provide maintenance services; and (b) the approval rating for each kind of specialist maintenance that the applicant is approved to provide; and (c) any limitations applying to an approval rating mentioned in paragraph (a) or (b); and (d) the permitted training that the applicant is approved to provide for its employees. (3) In approving the applicant, CASA also approves the applicant's proposed exposition.	Why? Responsible manager of workshops could audit hangar and responsible manager of hangar could audit workshops OR responsible manager of a location could audit base or another location and vice versus. CASA should be determining applicant complies with standards "specialised" FAR approach is if you comply with the FAR you are entitled to the certificate.
145.A.85 Changes to the organisation The organisation shall notify the competent authority of any proposal to carry out any of the following changes before such changes take place to enable the competent authority to determine continued compliance with this Part and to amend, if necessary, the approval certificate, except that in the case of proposed changes in personnel not known to the management beforehand, these changes must be notified at the earliest opportunity: 1. the name of the organisation; 2. the main location of the organisation; 3. additional locations of the organisation; 4. the accountable manager; 5. any of the persons nominated under 145.A.30(b); 6. the facilities, equipment, tools, material, procedures, work scope or certifying staff that could affect the approval. **145.A.90 Continued validity** (a) An approval shall be issued for an unlimited duration. It shall remain valid subject to:	**§145.55 Duration and renewal of certificate.** (a) A certificate or rating issued to a repair station located in the United States is effective from the date of issue until the repair station surrenders the certificate and the FAA accepts it for cancellation, or the FAA suspends or revokes it. (b) A certificate or rating issued to a repair station located outside the United States is effective from the date of issue until the last day of the 12th month after the date of issue unless the repair station surrenders the certificate and the FAA accepts it for cancellation, or the FAA suspends or revokes it. The FAA may renew the certificate or rating for 24 months if the repair station has operated in compliance with the applicable requirements of part 145 within the preceding certificate duration period. (c) A certificated repair station located outside the United States that applies for a renewal of its repair station certificate must— (1) Submit its request for renewal no later than 30 days before the repair station's current certificate expires. If a request for renewal is not made within this period, the repair station must follow the application procedures in §145.51.		CASA needs this provision if it continues approving AMOs outside Australia

EASR	FAR	CASR (MoS)	Conceptual problems
1. the organisation remaining in compliance with this Part, in accordance with the provisions related to the handling of findings as specified under 145.B.40; and 2. the competent authority being granted access to the organisation to determine continued compliance with this Part; and 3. the certificate not being surrendered or revoked. (b) Upon surrender or revocation, the approval shall be returned to the competent authority.	(2) Send its request for renewal to the FAA office that has jurisdiction over the certificated repair station. (3) Show that the fee prescribed by the FAA has been paid. (d) The holder of an expired, surrendered, suspended, or revoked certificate must return it to the FAA.		
	§145.57 Amendment to or transfer of certificate. (a) A repair station certificate holder applying for a change to its certificate must submit a request in a format acceptable to the Administrator. A change to the certificate must include certification in compliance with §145.53(c) or (d), if not previously submitted. A certificate change is necessary if the certificate holder— (1) Changes the name or location of the repair station, or (2) Requests to add or amend a rating. (b) If the holder of a repair station certificate sells or transfers its assets and the new owner chooses to operate as a repair station, the new owner must apply for an amended or new certificate in accordance with §145.51.		Adopt
	§145.59 Ratings. The following ratings are issued under this subpart: **(a) Airframe ratings.** (1) *Class 1:* Composite construction of small aircraft. (2) *Class 2:* Composite construction of large aircraft. (3) *Class 3:* All-metal construction of small aircraft. (4) *Class 4:* All-metal construction of large aircraft. **(b) Powerplant ratings.** (1) *Class 1:* Reciprocating engines of 400 horsepower or less. (2) *Class 2:* Reciprocating engines of more than 400 horsepower. (3) *Class 3:* Turbine engines. **(c) Propeller ratings.** (1) *Class 1:* Fixed-pitch and ground-adjustable propellers of wood, metal, or composite construction. (2) *Class 2:* Other propellers, by make. **(d) Radio ratings**.		Many support the FAR certificate breakup, however AMROBA supports maintaining the adoption of the EASR Certificate format.

EASR	FAR	CASR (MoS)	Conceptual problems
	(1) *Class 1:* Communication equipment. Radio transmitting and/or receiving equipment used in an aircraft to send or receive communications in flight, regardless of carrier frequency or type of modulation used. This equipment includes auxiliary and related aircraft interphone systems, amplifier systems, electrical or electronic intercrew-signaling devices, and similar equipment. This equipment does not include equipment used for navigating or aiding navigation of aircraft, equipment used for measuring altitude or terrain clearance, other measuring equipment operated on radio or radar principles, or mechanical, electrical, gyroscopic, or electronic instruments that are a part of communications radio equipment. (2) *Class 2: Navigational equipment*. A radio system used in an aircraft for en-route or approach navigation. This does not include equipment operated on radar or pulsed radio frequency principles, or equipment used for measuring altitude or terrain clearance. (3) *Class 3: Radar equipment*. An aircraft electronic system operated on radar or pulsed radio frequency principles. **(e) Instrument ratings.** (1) *Class 1: Mechanical*. A diaphragm, bourdon tube, aneroid, optical, or mechanically driven centrifugal instrument used on aircraft or to operate aircraft, including tachometers, airspeed indicators, pressure gauges drift sights, magnetic compasses, altimeters, or similar mechanical instruments. (2) *Class 2: Electrical*. Self-synchronous and electrical-indicating instruments and systems, including remote indicating instruments, cylinder head temperature gauges, or similar electrical instruments. (3) *Class 3: Gyroscopic*. An instrument or system using gyroscopic principles and motivated by air pressure or electrical energy, including automatic pilot control units, turn and bank indicators, directional gyros, and their parts, and flux gate and gyrosyn compasses. (4) *Class 4: Electronic*. An instrument whose operation depends on electron tubes, transistors, or similar devices, including capacitance type quantity gauges, system amplifiers, and engine analyzers. **(f) Accessory ratings.** (1) *Class 1:* A mechanical accessory that depends on friction, hydraulics, mechanical linkage, or pneumatic pressure for operation, including aircraft wheel brakes, mechanically driven pumps, carburettors, aircraft wheel assemblies, shock absorber struts and hydraulic servo units.		

EASR	FAR	CASR (MoS)	Conceptual problems
	(2) *Class 2:* An electrical accessory that depends on electrical energy for its operation, and a generator, including starters, voltage regulators, electric motors, electrically driven fuel pumps magnetos, or similar electrical accessories. (3) *Class 3:* An electronic accessory that depends on the use of an electron tube transistor, or similar device, including supercharger, temperature, air conditioning controls, or similar electronic controls.		
	§145.61 Limited ratings. (a) The FAA may issue a limited rating to a certificated repair station that maintains or alters only a particular type of airframe, powerplant, propeller, radio, instrument, or accessory, or part thereof, or performs only specialized maintenance requiring equipment and skills not ordinarily performed under other repair station ratings. Such a rating may be limited to a specific model aircraft, engine, or constituent part, or to any number of parts made by a particular manufacturer. (b) The FAA issues limited ratings for— (1) Airframes of a particular make and model; (2) Engines of a particular make and model; (3) Propellers of a particular make and model; (4) Instruments of a particular make and model; (5) Radio equipment of a particular make and model; (6) Accessories of a particular make and model; (7) Landing gear components; (8) Floats, by make; (9) Non-destructive inspection, testing, and processing; (10) Emergency equipment; (11) Rotor blades, by make and model; and (12) Aircraft fabric work. (c) For a limited rating for specialized services, the operations specifications of the repair station must contain the specification used to perform the specialized service. The specification may be— (1) A civil or military specification currently used by industry and approved by the FAA, or (2) A specification developed by the applicant and approved by the FAA.		Power to limit certificate ratings for dedicated specialised AMOs Europe does not have such approvals. This type of organisation normally works under an arrangement to a 145 AMO in Europe

Comparison EASR, FAR & CASR/MoS Part 145

EASR	FAR	CASR (MoS)	Conceptual problems
	Subpart C—Housing, Facilities, Equipment, Materials, and Data		
	§145.101 General. A certificated repair station must provide housing, facilities, equipment, materials, and data that meet the applicable requirements for the issuance of the certificate and ratings the repair station holds.		
145.A.25 Facility requirements The organisation shall ensure that: (a) Facilities are provided appropriate for all planned work, ensuring in particular, protection from the weather elements. Specialised workshops and bays are segregated as appropriate, to ensure that environmental and work area contamination is unlikely to occur. 1. For base maintenance of aircraft, aircraft hangars are both available and large enough to accommodate aircraft on planned base maintenance; 2. For component maintenance, component workshops are large enough to accommodate the components on planned maintenance. (b) Office accommodation is provided for the management of the planned work referred to in paragraph (a), and certifying staff so that they can carry out their designated tasks in a manner that contributes to good aircraft maintenance standards. (c) The working environment including aircraft hangars, component workshops and office accommodation is appropriate for the task carried out and in particular special requirements observed. Unless otherwise dictated by the particular task environment, the working environment must be such that the effectiveness of personnel is not impaired: 1. temperatures must be maintained such that personnel can carry out required tasks without undue discomfort. 2. dust and any other airborne contamination are kept to a minimum and not be permitted to reach a level in the work task area where visible aircraft/component surface contamination is evident. Where dust/other airborne contamination results in visible surface contamination, all susceptible systems are sealed until acceptable conditions are re-established. 3. lighting is such as to ensure each inspection and maintenance task can be carried out in an effective manner. 4. noise shall not distract personnel from carrying out inspection tasks. Where it is impractical to control the noise	**§145.103 Housing and facilities requirements.** (a) Each certificated repair station must provide— (1) Housing for the facilities, equipment, materials, and personnel consistent with its ratings. (2) Facilities for properly performing the maintenance, preventive maintenance, or alterations of articles or the specialized services for which it is rated. Facilities must include the following: (i) Sufficient work space and areas for the proper segregation and protection of articles during all maintenance, preventive maintenance, or alterations; (ii) Segregated work areas enabling environmentally hazardous or sensitive operations such as painting, cleaning, welding, avionics work, electronic work, and machining to be done properly and in a manner that does not adversely affect other maintenance or alteration articles or activities; (iii) Suitable racks, hoists, trays, stands, and other segregation means for the storage and protection of all articles undergoing maintenance, preventive maintenance, or alterations; (iv) Space sufficient to segregate articles and materials stocked for installation from those articles undergoing maintenance, preventive maintenance, or alterations; and (v) Ventilation, lighting, and control of temperature, humidity, and other climatic conditions sufficient to ensure personnel perform maintenance, preventive maintenance, or alterations to the standards required by this part. (b) A certificated repair station with an airframe rating must provide suitable permanent housing to enclose the largest type and model of aircraft listed on its operations specifications. (c) A certificated repair station may perform maintenance, preventive maintenance, or alterations on articles outside of its housing if it provides suitable facilities that are acceptable to the FAA and meet the requirements of §145.103(a) so that	**145.A.25 Facility requirements** (aa) In this section: ***airborne*** means: 1. present in, or carried on, the air; or 2. propelled through the air by the wind, or by propellers, exhaust systems, ventilation systems, fans, brooms or similar equipment, systems, mechanisms or devices. ***contamination*** includes any of the following foreign bodies: 1. moisture in any form; 2. dust, ash, soot and similar particulates; 3. any other matter in particulate form that could adversely affect the proper operation of an aircraft or an aeronautical product. (a) An AMO must have facilities for the provision of maintenance services that are appropriate for carrying out maintenance of the kind that is being carried out in the facilities. In particular, the facilities must be to a standard that provides an environment that: 1. is appropriate to the weather conditions that prevail at the time that the maintenance is carried out; and 2. allows maintenance to be carried out: (i) at a comfortable temperature; and (ii) with appropriate levels of lighting; and (iii) without undue noise distraction; and 3. segregates specialised workshops and bays to avoid environmental and work area contamination; and 4. keeps airborne contamination to a level that does not result in visible aircraft or aeronautical product surface contamination; and 5. for base maintenance of aircraft, provides aircraft hangars that are both available and large enough to accommodate aircraft on planned base maintenance; and 6. for aeronautical product maintenance, provides workshops that are large enough to accommodate the product on planned maintenance.	Australia has other very stringent requirements to provide a safe workplace, unlike some European countries. The FAR requirements are most appropriate. CASR wording conflicts with W&OHS requirements and are not required. US States, like Australia, have slightly different standards that apply to facilities, equipment and workplace safety practices. CASA should not impose variable standards. The concepts are quite different. CASR is about process control and not about making a business responsible. FAR is more compatible with other Australian legislation.

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source, such personnel are provided with the necessary personal equipment to stop excessive noise causing distraction during inspection tasks. 5. where a particular maintenance task requires the application of specific environmental conditions different to the foregoing, then such conditions are observed. Specific conditions are identified in the maintenance data. 6. the working environment for line maintenance is such that the particular maintenance or inspection task can be carried out without undue distraction. Therefore where the working environment deteriorates to an unacceptable level in respect of temperature, moisture, hail, ice, snow, wind, light, dust/other airborne contamination, the particular maintenance or inspection tasks must be suspended until satisfactory conditions are re-established. (d) Secure storage facilities are provided for components, equipment, tools and material. Storage conditions ensure segregation of serviceable components and material from unserviceable aircraft components, material, equipment and tools. The conditions of storage are in accordance with the manufacturer's instructions to prevent deterioration and damage of stored items. Access to storage facilities is restricted to authorised personnel.	the work can be done in accordance with the requirements of part 43 of this chapter. **§145.105 Change of location, housing, or facilities.** (a) A certificated repair station may not change the location of its housing without written approval from the FAA. (b) A certificated repair station may not make any changes to its housing or facilities required by §145.103 that could have a significant effect on its ability to perform the maintenance, preventive maintenance, or alterations under its repair station certificate and operations specifications without written approval from the FAA. (c) The FAA may prescribe the conditions, including any limitations, under which a certificated repair station must operate while it is changing its location, housing, or facilities. **§145.107 Satellite repair stations.** (a) A certificated repair station under the managerial control of another certificated repair station may operate as a satellite repair station with its own certificate issued by the FAA. A satellite repair station— (1) May not hold a rating not held by the certificated repair station with managerial control; (2) Must meet the requirements for each rating it holds; (3) Must submit a repair station manual acceptable to the FAA as required by §145.207; and (4) Must submit a quality control manual acceptable to the FAA as required by §145.211(c). (b) Unless the FAA indicates otherwise, personnel and equipment from the certificated repair station with managerial control and from each of the satellite repair stations may be shared. However, inspection personnel must be designated for each satellite repair station and available at the satellite repair station any time a determination of airworthiness or return to service is made. In other circumstances, inspection personnel may be away from the premises but must be available by telephone, radio, or other electronic means. (c) A satellite repair station may not be located in a country other than the domicile country of the certificated repair station with managerial control.	(ab) Wherever maintenance is carried out, including in the open air, if the facilities mentioned in paragraph (a) cannot provide an environment of the kind mentioned in subparagraph (a) 4 because of weather or other environmental conditions (adverse conditions), subparagraph (a) 4 does not apply provided the AMO has, and acts upon, written procedures that: 1. for subparagraph 145.A.65 (b) 3, have been specifically approved by CASA, in writing, as appropriate for adverse conditions; and 2. ensure that aircraft systems and aeronautical products whose proper operation could be affected by airborne contamination during the maintenance: (i) are sealed before the airborne contamination results in visible surface contamination; and (ii) remain sealed until there is no risk of visible surface airborne contamination. (b) An AMO must provide office accommodation for the management of planned maintenance services and for certifying employees. The facility provided must be to a standard that enables employees to perform their duties without undue noise distraction. (c) If maintenance instructions for a maintenance task require the existence of specific environmental conditions, then the AMO must ensure that such conditions exist when carrying out the maintenance. (d) An AMO must provide storage facilities for aeronautical products, equipment and tools, which: 1. segregate serviceable aeronautical products, equipment and tools from unserviceable aeronautical products, equipment and tools; and 2. comply with manufacturers' instructions for keeping the equipment, tools or products in a serviceable condition; and 3. provide an appropriate level of security to prevent unauthorised access to the storage facilities. (e) An AMO approved to carry out base maintenance on an aircraft must have aircraft hangars that are appropriate for the type of aircraft for which base maintenance is approved. The organisation must have an aircraft hangar visit plan mentioned in its exposition, which sets out the proposed usage of the facility and a process for updating the plan.	
145.A.42 Acceptance of components		**145.A.42 Acceptance of aeronautical products**	

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EASR	FAR	CASR (MoS)	Conceptual problems
(a) All components shall be classified and appropriately segregated into the following categories: 1. Components which are in a satisfactory condition, released on an EASA Form 1 or equivalent and marked in accordance with Part-21 Subpart Q. 2. Unserviceable components which shall be maintained in accordance with this section. 3. Unsalvageable components which are classified in accordance with 145.A.42(d). 4. Standard parts used on an aircraft, engine, propeller or other aircraft component when specified in the manufacturer's illustrated parts catalogue and/or the maintenance data. 5. Material both raw and consumable used in the course of maintenance when the organisation is satisfied that the material meets the required specification and has appropriate traceability. All material must be accompanied by documentation clearly relating to the particular material and containing a conformity to specification statement plus both the manufacturing and supplier source. (b) Prior to installation of a component, the organisation shall ensure that the particular component is eligible to be fitted when different modification and/or airworthiness directive standards may be applicable. (c) The organisation may fabricate a restricted range of parts to be used in the course of undergoing work within its own facilities provided procedures are identified in the exposition. (d) Components which have reached their certified life limit or contain a non-repairable defect shall be classified as unsalvageable and shall not be permitted to re-enter the component supply system unless certified life limits have been extended or a repair solution has been approved according to Part-21.		(a) An AMO must classify and segregate all aeronautical products for use or intended for use in the maintenance of aircraft or of aeronautical products in accordance with Subpart 42.E of CASR 1998. (b) The AMO must keep copies of documents that establish that the aeronautical products mentioned in paragraph (a) meet the conformity and traceability requirements of Subpart 42.E. (c) The AMO must keep documents mentioned in paragraph (b) for 2 years after the aeronautical product has been used in, or fitted to, an aircraft or another aeronautical product.	This is part of an AMO's stores procedures. Additional red tape regulation.
		145.A.43 Fabrication in the course of maintenance (a) An AMO may fabricate an aeronautical product in accordance with the procedures in its exposition if: 1. the product is fabricated and used during maintenance by the AMO; and 2. the AMO is able to comply with the design data for the product being fabricated, including: (i) the dimensions, materials, processes and any special technique for fabricating the product; and (ii) the assembly, inspection and test procedures for the product; and	Delete, Totally over the top. Makes a mountain out of normal maintenance practices. Can be covered by an AC like the FAA.

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		(iii) the identification and marking of the product; and 3. the AMO has the necessary facilities, tools, equipment and employees for fabricating, inspecting and testing the product; and 4. the completed product complies with the design data mentioned in subparagraph 145.A.43 (a) 2; and 5. unless impractical to do so because of the product's size, the product is: (i) marked with a part and serial number as required by the design data; and (ii) marked to identify the AMO. (b) An AMO must make and retain a record for each aeronautical product fabricated by it, including the following information: 1. a description of the product; 2. the part number and serial number of the product; 3. the type of aircraft or aeronautical product the product will be fitted to or used in; 4. the design data used for fabricating the product; 5. identification of the parts and materials used to fabricate the product and the results of inspections and tests carried out on the product; 6. a certification that the product has been fabricated in accordance with, and meets the requirements of, the design data for each of the following as applicable: (i) assembly of the product; (ii) inspection of the product; (iii) testing of the product; (iv) marking of the product. (c) An AMO must keep the record required by paragraph (b) for the earlier of 2 years or the aeronautical product having been permanently removed from service. (d) If an AMO uses the aeronautical product it has fabricated for, or fits it to an aircraft, it must include in the maintenance record for the aircraft: 1. a note that the product was fabricated by the AMO; and 2. a cross-reference to the record required by paragraph (b). (e) If an AMO uses the aeronautical product it has fabricated for, or fits it to a second aeronautical product, it must include on the certificate of release to service for the second product: 1. the product description and part number; and 2. a cross-reference to the record required by paragraph (b).	

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EASR	FAR	CASR (MoS)	Conceptual problems
145.A.40 Equipment, tools and material (a) The organisation shall have available and use the necessary equipment, tools and material to perform the approved scope of work. 1. Where the manufacturer specifies a particular tool or equipment, the organisation shall use that tool or equipment, unless the use of alternative tooling or equipment is agreed by the competent authority via procedures specified in the exposition. 2. Equipment and tools must be permanently available, except in the case of any tool or equipment that is so infrequently used that its permanent availability is not necessary. Such cases shall be detailed in an exposition procedure. 3. An organisation approved for base maintenance shall have sufficient aircraft access equipment and inspection platforms/docking such that the aircraft can be properly inspected. (b) The organisation 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.	**§145.109 Equipment, materials, and data requirements.** (a) Except as otherwise prescribed by the FAA, a certificated repair station must have the equipment, tools, and materials necessary to perform the maintenance, preventive maintenance, or alterations under its repair station certificate and operations specifications in accordance with part 43. The equipment, tools, and material must be located on the premises and under the repair station's control when the work is being done. (b) A certificated repair station must ensure all test and inspection equipment and tools used to make airworthiness determinations on articles are calibrated to a standard acceptable to the FAA. (c) The equipment, tools, and material must be those recommended by the manufacturer of the article or must be at least equivalent to those recommended by the manufacturer and acceptable to the FAA. (d) A certificated repair station must maintain, in a format acceptable to the FAA, the documents and data required for the performance of maintenance, preventive maintenance, or alterations under its repair station certificate and operations specifications in accordance with part 43. The following documents and data must be current and accessible when the relevant work is being done: (1) Airworthiness directives, (2) Instructions for continued airworthiness, (3) Maintenance manuals, (4) Overhaul manuals, (5) Standard practice manuals, (6) Service bulletins, and (7) Other applicable data acceptable to or approved by the FAA.	**145.A.40 Tools, equipment and material** (a) An AMO must have tools, equipment and materials to enable it to provide maintenance services for which the AMO has an approval rating and: 1. where the maintenance data specifies a particular tool or equipment must be used in the maintenance of the aircraft or aeronautical product, the AMO must use that tool or equipment, unless the use of alternative tooling or equipment is approved by alteration of maintenance data in accordance with subparagraph 145.A.45 (d) 3; and 2. the tooling and equipment must be permanently available or, where a tool or equipment is infrequently used, a method of access to that tool or equipment must be described in the AMO's exposition; and 3. sufficient aircraft access equipment and inspection platforms or docks to properly carry out its approved scope of maintenance. (b) An AMO must ensure that all tools, equipment and, particularly, test equipment that requires calibration, are controlled and calibrated at a periodicity to ensure serviceability and accuracy in accordance with the procedures set out in the AMO's exposition, and: 1. the tool or equipment manufacturer's recommendations; or 2. a nationally recognised standard. (c) An AMO must ensure that, on the day of calibration, it or the other organisation making the calibration makes and retains: 1. records of the calibrations of each item of equipment or tools that requires calibration; and 2. a record of the standard of calibration used. (d) An AMO must have a procedure in its exposition for managing an aircraft or aeronautical product released to service after maintenance has been performed using a tool or equipment that is subsequently found to have been outside of tolerances specified for the tool or equipment at the time the work was performed.	Simple outcome based requirement FAR also needs FAR Part 43 to complete standards.
	Subpart D—Personnel		
145.A.47 Production planning (a) The organisation shall have a system appropriate to the amount and complexity of work to plan the availability of all necessary personnel, tools, equipment, material,	**§145.151 Personnel requirements.** Each certificated repair station must—	**145.A.47 Production planning** (a) An AMO must have, at any time, sufficient employees to provide the maintenance services it is approved to provide and a system of production planning detailed in	FAR simply requires the business to provide

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maintenance data and facilities in order to ensure the safe completion of the maintenance work. (b) The planning of maintenance tasks, and the organising of shifts, shall take into account human performance limitations. (c) When it is required to hand over the continuation or completion of maintenance tasks for reasons of a shift or personnel changeover, relevant information shall be adequately communicated between outgoing and incoming personnel.	(b) Provide qualified personnel to plan, supervise, perform, and approve for return to service the maintenance, preventive maintenance, or alterations performed under the repair station certificate and operations specifications;	its exposition, which is appropriate to the volume and complexity of maintenance services that it provides. (b) The production planning system must include: 1. forecasting of maintenance work to ensure availability of employees, tools, equipment, maintenance data and facilities to carry out the maintenance; and 2. consideration of human performance limitations when planning maintenance tasks and scheduling shifts or maintenance teams to ensure maintenance can be completed without undue haste and within the limitations of human performance; and 3. procedures for the communication of information to employees about the progress of maintenance when there is a shift changeover or change of individual employees performing a maintenance task.	personnel to fill their organisational chart. Remove “forecasting” concept from requirements. EASR better wording
145.A.30 Personnel requirements (a) The organisation shall appoint an accountable manager who has corporate authority for ensuring that all maintenance required by the customer can be financed and carried out to the standard required by this Part. The accountable manager shall: 1. ensure that all necessary resources are available to accomplish maintenance in accordance with 145.A.65(b) to support the organisation approval. 2. establish and promote the safety and quality policy specified in 145.A.65(a). 3. demonstrate a basic understanding of this Part. (b) The organisation shall nominate a person or group of persons, whose responsibilities include ensuring that the organisation complies with this Part. Such person(s) shall ultimately be responsible to the accountable manager. 1. The person or persons nominated shall represent the maintenance management structure of the organisation and be responsible for all functions specified in this Part. 2. The person or persons nominated shall be identified and their credentials submitted in a form and manner established by the competent authority. 3. The person or persons nominated shall be able to demonstrate relevant knowledge, background and satisfactory experience related to aircraft or component maintenance and demonstrate a working knowledge of this Part.	**§145.151 Personnel requirements.** Each certificated repair station must— (a) Designate a repair station employee as the accountable manager; (b) Provide qualified personnel to plan, supervise, perform, and approve for return to service the maintenance, preventive maintenance, or alterations performed under the repair station certificate and operations specifications; (c) Ensure it has a sufficient number of employees with the training or knowledge and experience in the performance of maintenance, preventive maintenance, or alterations authorized by the repair station certificate and operations specifications to ensure all work is performed in accordance with part 43; and (d) Determine the abilities of its non-certificated employees performing maintenance functions based on training, knowledge, experience, or practical tests. **§145.153 Supervisory personnel requirements.** (a) A certificated repair station must ensure it has a sufficient number of supervisors to direct the work performed under the repair station certificate and operations specifications. The supervisors must oversee the work performed by any individuals who are unfamiliar with the methods, techniques, practices, aids, equipment, and tools used to perform the maintenance, preventive maintenance, or alterations. (b) Each supervisor must—	**145.A.30 Personnel requirements** Accountable manager (a) An AMO must appoint an accountable manager who has corporate authority to ensure that all maintenance required by its customers can be financed and carried out to the standard required by the AMO’s approved exposition, this MOS and CASR 1998. The accountable manager must: 1. ensure that the AMO is able to finance, and has adequate resources available to enable it to provide maintenance services in accordance with its exposition, and that all necessary resources are available to carry out maintenance in accordance with paragraph 145.A.65 (b); and 2. establish and promote the safety and quality management policies required by paragraph 145.A.65 (a); and 3. have and maintain an understanding of this MOS and the AMO’s exposition; and 4. ensure that the AMO complies with its exposition, its approval rating and CASR 1998. Responsible manager (b) An AMO must nominate 1 or more individuals as a responsible manager, to be responsible to the accountable manager. The nominated individual’s qualifications must be submitted to CASA in a form and manner approved by CASA and the individual must demonstrate to CASA knowledge of, and experience relevant to, the provision of maintenance services for which they are to be responsible and a working knowledge of this MOS. A responsible manager must ensure that, for his or her area of responsibility, the AMO complies with the requirements of this MOS and its exposition.	The FAR is generic, regulatory and business compatible. The accountability and responsibility rests with the business FAR specifically addresses the “inspection” personnel responsibilities totally missing from our CAR/CASR system

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4. Procedures shall make clear who deputises for any particular person in the case of lengthy absence of the said person. (c) The accountable manager under paragraph (a) shall appoint a person with responsibility for monitoring the quality system, including the associated feedback system as required by 145.A.65(c). The appointed person shall have direct access to the accountable manager to ensure that the accountable manager is kept properly informed on quality and compliance matters. (d) The organisation shall have a maintenance man-hour plan showing that the organisation has sufficient staff to plan, perform, supervise, inspect and quality monitor the organisation in accordance with the approval. In addition the organisation shall have a procedure to reassess work intended to be carried out when actual staff availability is less than the planned staffing level for any particular work shift or period. (e) The organisation shall establish and control the competence of personnel involved in any maintenance, management and/or quality audits in accordance with a procedure and to a standard agreed by the competent authority. In addition to the necessary expertise related to the job function, competence must include an understanding of the application of human factors and human performance issues appropriate to that person's function in the organisation. 'Human factors' means principles which apply to aeronautical design, certification, training, operations and maintenance and which seek safe interface between the human and other system components by proper consideration of human performance. 'Human performance' means human capabilities and limitations which have an impact on the safety and efficiency of aeronautical operations. (f) The organisation shall ensure that personnel who carry out and/or control a continued airworthiness non-destructive test of aircraft structures and/or components are appropriately qualified for the particular non-destructive test in accordance with the European or equivalent Standard recognised by the Agency. Personnel who carry out any other specialised task shall be appropriately qualified in accordance with officially recognised Standards. By derogation to this paragraph those personnel specified in paragraphs (g) and (h)(1) and (h)(2), qualified in Part-66 category B1 may carry out and/or control colour contrast dye penetrant tests.	(1) If employed by a repair station located inside the United States, be appropriately certificated as a mechanic or repairman under part 65 of this chapter for the work being supervised. (2) If employed by a repair station located outside the United States— (i) Have a minimum of 18 months of practical experience in the work being performed; or (ii) Be trained in or thoroughly familiar with the methods, techniques, practices, aids, equipment, and tools used to perform the maintenance, preventive maintenance, or alterations. (c) A certificated repair station must ensure its supervisors understand, read, and write English. **§145.155 Inspection personnel requirements.** (a) A certificated repair station must ensure that persons performing inspections under the repair station certificate and operations specifications are— (1) Thoroughly familiar with the applicable regulations in this chapter and with the inspection methods, techniques, practices, aids, equipment, and tools used to determine the airworthiness of the article on which maintenance, preventive maintenance, or alterations are being performed; and (2) Proficient in using the various types of inspection equipment and visual inspection aids appropriate for the article being inspected. (b) A certificated repair station must ensure its inspectors understand, read, and write English. **§145.157 Personnel authorized to approve an article for return to service.** (a) A certificated repair station located inside the United States must ensure each person authorized to approve an article for return to service under the repair station certificate and operations specifications is appropriately certificated as a mechanic or repairman under part 65. (b) A certificated repair station located outside the United States must ensure each person authorized to approve an article for return to service under the repair station certificate and operations specifications is—	Quality and safety managers (c) The accountable manager must nominate an individual or individuals for the positions of: 1. Quality manager, who must: (i) have a direct line of corporate accountability to the accountable manager; and (ii) ensure that the accountable manager is kept properly informed on quality and compliance matters; and (iii) have the responsibility for monitoring the AMO's quality system as required by paragraph 145.A.65 (c); and (iv) have the responsibility and authority for issuing and revoking certification authorisations on behalf of the AMO. The quality manager may nominate other persons to carry out this function in accordance with a procedure specified in the AMO's exposition. 2. Safety manager, who must: (i) have a direct line of corporate accountability to the accountable manager; and (ii) ensure that the accountable manager is kept properly informed on safety matters; and (iii) have responsibility for the safety management system as required by paragraph 145.A.65 (d) of this MOS. Man-hour plan (d) An AMO must have a maintenance man-hour plan in its exposition, showing how the AMO has sufficient employees to plan, perform, supervise, inspect and certify for maintenance and audit the AMO for compliance in accordance with the quality system required by paragraph 145.A.65 (c) of this MOS. The plan must include a procedure to reassess work intended to be carried out when actual employee availability is less than the planned staffing level for any particular work shift or period. Employee qualifications (e) An AMO must specify standards (including, but not limited to, qualifications and experience) in its exposition for the competence of individuals involved in any maintenance, maintenance training, management or quality audit task and must ensure these individuals meet the standards for a task that they are authorised to perform. The AMO must also ensure these individuals have an understanding of the application of human factors and human performance issues appropriate to that individual's function in the AMO. Requirements for certifying employees (f) An AMO may authorise employees under subparagraph 145.A.35 (b) 3 for specialist maintenance tasks if:	

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(g) Any organisation maintaining aircraft, except where stated otherwise in paragraph (j), shall in the case of aircraft line maintenance, have appropriate aircraft type rated certifying staff qualified as category B1 and B2 in accordance with Part-66 and 145.A.35. In addition such organisations may also use appropriately task trained certifying staff qualified as category A in accordance with Part-66 and 145.A.35 to carry out minor scheduled line maintenance and simple defect rectification. The availability of such category A certifying staff shall not replace the need for Part-66 category B1 and B2 certifying staff to support the category A certifying staff. However, such Part-66 category B1 and B2 staff need not always be present at the line station during minor scheduled line maintenance or simple defect rectification. (h) Any organisation maintaining aircraft, except where stated otherwise in paragraph (j) shall: 1. in the case of base maintenance of large aircraft, have appropriate aircraft type rated certifying staff qualified as category C in accordance with Part-66 and 145.A.35. In addition the organisation shall have sufficient aircraft type rated staff qualified as category B1 and B2 in accordance with Part-66 and 145.A.35 to support the category C certifying staff. (i) B1 and B2 support staff shall ensure that all relevant tasks or inspections have been carried out to the required standard before the category C certifying staff issues the certificate of release to service. (ii) The organisation shall maintain a register of any such B1 and B2 support staff. (iii) The category C certifying staff shall ensure that compliance with paragraph (i) has been met and that all work required by the customer has been accomplished during the particular base maintenance check or work package, and shall also assess the impact of any work not carried out with a view to either requiring its accomplishment or agreeing with the operator to defer such work to another specified check or time limit. 2. in the case of base maintenance of aircraft other than large aircraft have either: (i) appropriate aircraft type rated certifying staff qualified as category B1 and B2 in accordance with Part-66 and 145.A.35 or, (ii) appropriate aircraft type rated certifying staff qualified in category C assisted by B1 and B2 support staff as specified in paragraph (1).	(1) Trained in or has 18 months practical experience with the methods, techniques, practices, aids, equipment, and tools used to perform the maintenance, preventive maintenance, or alterations; and (2) Thoroughly familiar with the applicable regulations in this chapter and proficient in the use of the various inspection methods, techniques, practices, aids, equipment, and tools appropriate for the work being performed and approved for return to service. (c) A certificated repair station must ensure each person authorized to approve an article for return to service understands, reads, and writes English. **§145.159 Recommendation of a person for certification as a repairman.** A certificated repair station that chooses to use repairmen to meet the applicable personnel requirements of this part must certify in a format acceptable to the FAA that each person recommended for certification as a repairman— (a) Is employed by the repair station, and (b) Meets the eligibility requirements of §65.101.	1. the AMO's exposition includes standards and procedures for: (i) qualifying the employee within a specialist field; and (ii) training and authorisation of the employee in accordance with the requirements of this MOS; and 2. the specialist maintenance is 1 or more of the following, and is specifically approved for the AMO in writing by CASA: (i) non-destructive testing (NDT) (other than NDT that is a colour contrast dye penetrant inspection, carried out by a person who is qualified in accordance with paragraph 145.A.30 (k) to carry out the inspection); (ii) welding; (iii) sheet metal, wood, fabric or composite repairs; (iv) aircraft surface finishing; (v) specialist software management of an in-flight entertainment system; (vi) on-wing engine maintenance; (vii) borescope inspections; (viii) general interior furnishing, trim and decor, including seat upholstery, seat cushions, seat trim, curtains, carpets, and panelling but not including: (A) any structural or electrical maintenance; or (B) any maintenance to seat mechanisms, seat floor fittings, seat tables or in-flight entertainment equipment; or (C) any maintenance or matter otherwise mentioned in this subparagraph; (ix) other maintenance approved as specialist maintenance by CASA for this sub-subparagraph. (g) Except where stated otherwise in paragraph 145.A.30 (l), an AMO must have for line maintenance: 1. a sufficient number of employees appropriately type rated and licensed, in accordance with paragraph 145.A.30 (k), as Category B licence holders, and authorised by the AMO under section 145.A.35 to perform maintenance certifications and issue certificates of release to service for aircraft maintenance; and 2. where applicable, a sufficient number of aircraft certifying employees qualified, in accordance with paragraph 145.A.30 (k), as Category A licence holders who must be trained for line maintenance of a specific aircraft type, and authorised by the AMO for that line maintenance and aircraft type under section 145.A.35 to:	specialised Totally unnecessary requirements as these are just maintenance tasks to be performed by "qualified" maintenance personnel. In Europe, many AMEs are also qualified in tasks like NDT as they are in Australia. FAR approach is more applicable to a maintenance business.

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EASR	FAR	CASR (MoS)	Conceptual problems
(i) Component certifying staff shall comply with Part-66. (j) By derogation to paragraphs (g) and (h), the organisation may use certifying staff qualified in accordance with the following provisions: 1. For organisation facilities located outside the Community territory certifying staff may be qualified in accordance with the national aviation regulations of the State in which the organisation facility is registered subject to the conditions specified in Appendix IV to this Part. 2. For line maintenance carried out at a line station of an organisation which is located outside the Community territory, the certifying staff may be qualified in accordance with the national aviation regulations of the State in which the line station is based, subject to the conditions specified in Appendix IV to this Part. 3. For a repetitive pre-flight airworthiness directive which specifically states that the flight crew may carry out such airworthiness directive, the organisation may issue a limited certification authorisation to the aircraft commander and/or the flight engineer on the basis of the flight crew licence held. However, the organisation shall ensure that sufficient practical training has been carried out to ensure that such aircraft commander or flight engineer can accomplish the airworthiness directive to the required standard. 4. In the case of aircraft operating away from a supported location the organisation may issue a limited certification authorisation to the commander and/or the flight engineer on the basis of the flight crew licence held subject to being satisfied that sufficient practical training has been carried out to ensure that the commander or flight engineer can accomplish the specified task to the required standard. The provisions of this paragraph shall be detailed in an exposition procedure. 5. In the following unforeseen cases, where an aircraft is grounded at a location other than the main base where no appropriate certifying staff are available, the organisation contracted to provide maintenance support may issue a one-off certification authorisation: (i) to one of its employees holding equivalent type authorisations on aircraft of similar technology, construction and systems; or (ii) to any person with not less than five years maintenance experience and holding a valid ICAO aircraft maintenance licence rated for the aircraft type requiring certification provided there is no organisation appropriately approved under this Part at that location and the contracted		(i) carry out minor scheduled line maintenance and simple defect rectification in accordance with Appendix II to this MOS; and (ii) to perform maintenance certification and issue certificates of release to service under the scope of the approval; and 3. where applicable, a sufficient number of specialist maintenance employees qualified in accordance with paragraph 145.A.30 (f) as specialist maintenance employees and authorised by the AMO under section 145.A.35 to perform maintenance certification for that maintenance before the Category B certifying employee issues the certificate of release to service; and 4. a register of certifying employees. (h) An AMO must have for base maintenance of large aircraft: 1. a sufficient number of aircraft type rated certifying employees licensed in accordance with paragraph 145.A.30 (k) as Category C licence holders, and authorised under section 145.A.35, who must: (i) ensure that compliance with subparagraphs 145.A.30 (h) 2 and (h) 3 have been met, and that all work required by the customer has been accomplished during the particular base maintenance check or work package; and (ii) assess the impact of any work that is required and that is not carried out to determine either: (A) if it is necessary to complete the work; or (B) if the work may be deferred and if the registered operator has agreed to defer the work to another specified check or time; and 2. a sufficient number of aircraft type rated certifying employees licensed in accordance with paragraph 145.A.30 (k) as Category B licence holders and authorised by the AMO under section 145.A.35 to perform maintenance certification before a Category C licence holder certifying employee issues a certificate of release to service; and 3. where applicable, a sufficient number of specialist maintenance employees qualified in accordance with paragraph 145.A.30 (f) as specialist maintenance employees and authorised by the AMO under section 145.A.35 to perform maintenance certification for that maintenance before the Category C certifying employee issues the certificate of release to service; and 4. a register of certifying employees. (i) An AMO must have for base maintenance of small aircraft:	

EASR	FAR	CASR (MoS)	Conceptual problems
organisation obtains and holds on file evidence of the experience and the licence of that person. All such cases as specified in this subparagraph shall be reported to the competent authority within seven days of the issuance of such certification authorisation. The organisation issuing the one-off authorisation shall ensure that any such maintenance that could affect flight safety is re-checked by an appropriately approved organisation.		1. a sufficient number of employees appropriately qualified and type rated, in accordance with paragraph 145.A.30 (k), as Category B licence holders authorised by the AMO under section 145.A.35 to perform maintenance certifications and issue certificates of release to service; and 2. where applicable, a sufficient number of specialist maintenance employees qualified in accordance with paragraph 145.A.30 (f) as specialist maintenance employees and authorised by the AMO under section 145.A.35 to perform maintenance certification for that maintenance before the Category B certifying employee issues the certificate of release to service; and 3. a register of certifying employees. (j) Aeronautical product certifying employees must be authorised by an AMO under section 145.A.35 before issuing an aeronautical product certificate of release to service. (k) For subparagraphs 145.A.30 (g) 1, 145.A.30 (g) 2, 145.A.30 (h) 1, 145.A.30 (h) 2 and subparagraph 145.A.30 (i) 1, and subject to Appendix III and the provisions of this MOS, an AMO may only authorise an individual to perform maintenance certification and issue certificates of release to service for aircraft maintenance under the following circumstances: 1. for a person who holds an AEL— the authorisation is limited by: (i) the licence category or subcategory; and (ii) any aircraft/engine combination specified in the licence; 2. for a person employed by an AMO in an AMO location outside Australian territory, to certify at that location: (i) the person holds an ICAO Annex 1 Aircraft Maintenance Licence that has been issued by: (A) the NAA for the location where the person is employed; or (B) if there is more than 1 NAA for the country of the location where the person is employed — any NAA of the country; or Note The Peoples' Republic of China has 3 official NAAs, including the Civil Aviation Department of the Hong Kong Special Administrative Region. (C) the NAA for the AMO's main location; and (ii) one of the following applies: (A) the licence includes the applicable aircraft/engine combination or rating; or	

EASR	FAR	CASR (MoS)	Conceptual problems
		(B) for a specific aircraft — the person has the type-specific training and experience required for the person's licence to cover a certification privilege that is equivalent to the certification privilege which, following requisite training and experience, would be added, in the form of a type rating for the specific aircraft, to a licence issued under Part 66 of CASR 1998, but which cannot be added to the person's licence in the form of an aircraft/engine combination or rating because: (1) the licence is an airframes and powerplants licence, which lists airframes and powerplants, and aircraft systems or components, under broad categories as described in Chapter 4 of Annex 1 to the Chicago Convention; or (2) the aircraft/engine combination is not listed on the National Register of licences and ratings for the country where the location is. (l) If an aircraft is grounded at a location that is not an AMO's main location, or that is an AMO's main location but one which does not normally provide maintenance services for the aircraft type, and there is no appropriately qualified certifying staff available, an AMO may authorise any of the following persons, in writing, to perform maintenance certification and issue certificates of release to service for aircraft maintenance for a single maintenance event: 1. an employee of the AMO who holds an equivalent type authorisation on aircraft of similar technology, construction and systems; 2. a person with not less than 5 years' maintenance experience who holds a valid aircraft maintenance licence issued by an ICAO Contracting State rated for the aircraft type requiring certification, provided there is no other AMO with the necessary approval at that location and the AMO obtains and retains evidence of the experience and the licence of that person. (m) Within 7 days of issuing an authorisation for any limited certification authorisations mentioned in paragraph (l), an AMO must give CASA a copy of the authorisation. (n) An AMO must, after issuing the certification authorisation for the single maintenance event, identify any maintenance required to be carried out subsequent to the single maintenance event as soon as practicable after the single maintenance event has occurred. Note For an authorisation based on Part 61 qualifications of flight crew, for the certification of repetitive pre-flight airworthiness directives, or for the certification of aircraft operating away from a supported location, refer to Part 42.G.	

EASR	FAR	CASR (MoS)	Conceptual problems
	§145.160 Employment of former FAA employees. (a) Except as specified in paragraph (c) of this section, no holder of a repair station certificate may knowingly employ or make a contractual arrangement which permits an individual to act as an agent or representative of the certificate holder in any matter before the Federal Aviation Administration if the individual, **in the preceding 2 years**— (1) Served as, or was directly responsible for the oversight of, a Flight Standards Service aviation safety inspector; and (2) Had direct responsibility to inspect, or oversee the inspection of, the operations of the certificate holder. (b) For the purpose of this section, an individual shall be considered to be acting as an agent or representative of a certificate holder in a matter before the agency if the individual makes any written or oral communication on behalf of the certificate holder to the agency (or any of its officers or employees) in connection with a particular matter, whether or not involving a specific party and without regard to whether the individual has participated in, or had responsibility for, the particular matter while serving as a Flight Standards Service aviation safety inspector. (c) The provisions of this section do not prohibit a holder of a repair station certificate from knowingly employing or making a contractual arrangement which permits an individual to act as an agent or representative of the certificate holder in any matter before the Federal Aviation Administration if the individual was employed by the certificate holder before October 21, 2011.		Unnecessary but should be discussed
	§145.161 Records of management, supervisory, and inspection personnel. (a) A certificated repair station must maintain and make available in a format acceptable to the FAA the following: (1) A roster of management and supervisory personnel that includes the names of the repair station officials who are responsible for its management and the names of its supervisors who oversee maintenance functions. (2) A roster with the names of all inspection personnel. (3) A roster of personnel authorized to sign a maintenance release for approving a maintained or altered article for return to service. (4) A summary of the employment of each individual whose name is on the personnel rosters required by paragraphs (a)(1) through (a)(3) of this section. The summary must contain enough information on each individual listed on the		Standard practice in all AMOs. FAR approach is more applicable to business than the EASR/CASR approach. Recommend adopting.

EASR	FAR	CASR (MoS)	Conceptual problems
	roster to show compliance with the experience requirements of this part and must include the following: (i) Present title, (ii) Total years of experience and the type of maintenance work performed, (iii) Past relevant employment with names of employers and periods of employment, (iv) Scope of present employment, and (v) The type of mechanic or repairman certificate held and the ratings on that certificate, if applicable. (b) Within 5 business days of the change, the rosters required by this section must reflect changes caused by termination, reassignment, change in duties or scope of assignment, or addition of personnel.		
	§145.163 Training requirements. (a) A certificated repair station must have and use an employee training program approved by the FAA that consists of initial and recurrent training. An applicant for a repair station certificate must submit a training program for approval by the FAA as required by §145.51(a)(7). (b) The training program must ensure each employee assigned to perform maintenance, preventive maintenance, or alterations, and inspection functions is capable of performing the assigned task. (c) A certificated repair station must document, in a format acceptable to the FAA, the individual employee training required under paragraph (a) of this section. These training records must be retained for a minimum of 2 years. (d) A certificated repair station must submit revisions to its training program to its certificate holding district office in accordance with the procedures required by §145.209(e).	**145.A.37 Training and assessment** Description in exposition (a) An AMO that provides training and assessment for certifying employees must describe in its exposition how it meets the relevant requirements for that training and assessment. Permitted training (b) If an employee of an AMO is the holder of an aircraft engineer licence, and: 1. that licence: (i) does not have a rating for a type rated aircraft type specified in a Manual of Standards for paragraph 66.015 (2) (e) of CASR 1998 endorsed on it; or (ii) is endorsed with a rating issued subject to an exclusion under Part 66 of CASR 1998 or Subpart 202.CG of CASR 1998; and 2. for an aircraft type, aircraft system or subset of an aircraft system specified in a Manual of Standards for paragraph 66.015 (2) (o) of CASR 1998 — CASA has decided under subparagraph 66.100 (a) (ii) of CASR 1998 that the training and assessment necessary for the removal of an exclusion is of a kind that may be provided by a AMO; and 3. the employee's AMO has an exposition that includes the provision of the particular kind of training and assessment mentioned in subparagraph 2; then the AMO may issue to the employee a certification authorisation for maintenance covered by the particular rating or exclusion once and only for a period of 6 months, if the AMO trains and assesses the employee in accordance with its exposition procedure.	Delete and adopt the FAR approach. The FAR is more compatible with W&OHS requirements. MoS is in the weeds controlling instead of placing the responsibility om the AMO to control training. Bad use of international aviation terminology that will only confuse industry and foreign NAAs Type rated aircraft are those covered by Parts 23, 25, 27, 29. The difference is between specific aircraft licence ratings and group ratings. Same mistake in Parts 66/147 concepts. CASA details should be in an AC if needed.

EASR	FAR	CASR (MoS)	Conceptual problems
		Permitted training — manufacturer's training for a rating (c) If an employee of an AMO is the holder of an aircraft engineer licence and: 1. the employee does not have a particular rating specified in a Manual of Standards for paragraph 66.015 (2) (e) of CASR 1998 endorsed on his or her licence; and 2. CASA has specified in a Manual of Standards for paragraph 66.015 (2) (p) an aircraft type, and decided that manufacturer's training and assessment may be provided by an AMO for the rating; then the AMO may issue the employee a Certification Authorisation for maintenance covered by the rating once and only for a period of 6 months, if the employee has been trained and assessed in accordance with the AMO's exposition. Note The training mentioned in paragraphs 145.A.37 (b) and (c) comes within the definition of permitted training in clause 1, Part 3 of the CASR 1998 Dictionary. Notice of completion of training and assessment (d) Subject to paragraph (da), the AMO must issue a notice of completion of training and assessment under paragraphs (b) and (c) in the form approved by CASA to the employee and provide a copy to CASA, if the employee: 1. successfully completes the training and assessment; and 2. provides maintenance services that include the performing of maintenance certifications or issuing of certificates of release to service for maintenance under his or her certification authorisation for a period of 6 months after commencement of the authorisation. Provisional notice of completion of training and assessment (da) An AMO is taken to comply with paragraph (d) if: 1. not later than 5 months after commencement of the employee's certification authorisation, the AMO gives the employee and CASA an electronic copy of the notice of completion of training and assessment under paragraphs (b) and (c) in a provisional form approved by CASA; and 2. not earlier than 3 working days before the day that is 6 months after commencement of the employee's certification authorisation, the AMO gives the employee and CASA an electronic copy of a confirmation of completion notice in a form approved by CASA. Note This procedure will give CASA time to make any appropriate changes to the employee's aircraft engineer licence, and return the licence to the employee on or before the 6 month period expires. This will allow the employee to	

EASR	FAR	CASR (MoS)	Conceptual problems
		continue to provide maintenance services that include the performing of maintenance certifications or the issuing of certificates of release to service for the same maintenance as under his or her expired certification authorisation. Category A licence training syllabus, training and assessment (e) An AMO may provide aircraft type specific training and assessment for line maintenance of an aircraft to an employee holding a Category A licence in accordance with paragraph 145.A.30 (k), for authorisation to perform maintenance certification and to issue a Certificate of release to service in accordance with section 66.A.20 of the Part 66 MOS, for maintenance described in Appendix II to this MOS, if details of the training syllabus and training and assessment procedures are set out in the AMO's exposition. Flight crew maintenance training syllabus, training and assessment (f) An AMO may provide training to a pilot or flight engineer to perform maintenance services in relation to the tasks set out in the Part 42 MOS, if details of the training syllabus and training and assessment procedures are set out in the AMO's exposition.	
	§145.165 Hazardous materials training. (a) Each repair station that meets the definition of a hazmat employer under 49 CFR 171.8 must have a hazardous materials training program that meets the training requirements of 49 CFR part 172 subpart H. (b) A repair station employee may not perform or directly supervise a job function listed in §121.1001 or §135.501 for, or on behalf of the part 121 or 135 operator including loading of items for transport on an aircraft operated by a part 121 or part 135 certificate holder unless that person has received training in accordance with the part 121 or part 135 operator's FAA approved hazardous materials training program.		MoS needs reference to current Australian environmental requirements and aviation dangerous goods. WHS covers this issue
	Subpart E—Operating Rules		
145.A.75 Privileges of the organisation In accordance with the exposition, the organisation shall be entitled to carry out the following tasks: (a) Maintain any aircraft and/or component for which it is approved at the locations identified in the approval certificate and in the exposition;	**§145.201 Privileges and limitations of certificate.** (a) A certificated repair station may— (1) Perform maintenance, preventive maintenance, or alterations in accordance with part 43 on any article for which it is rated and within the limitations in its operations specifications.	**145.A.73 Privileges of an AMO** For regulation 145.040 of CASR 1998, the privileges of an AMO include: 1. providing maintenance services for an aircraft or an aeronautical product for which the AMO is approved in	Nothing about working under an arrangement? FAR Part 145 excludes experimental aircraft

Comparison EASR, FAR & CASR/MoS Part 145

EASR	FAR	CASR (MoS)	Conceptual problems
(b) Arrange for maintenance of any aircraft or component for which it is approved at another organisation that is working under the quality system of the organisation. This refers to work being carried out by an organisation not itself appropriately approved to carry out such maintenance under this Part and is limited to the work scope permitted under 145.A.65(b) procedures. This work scope shall not include a base maintenance check of an aircraft or a complete workshop maintenance check or overhaul of an engine or engine module; (c) Maintain any aircraft or any component for which it is approved at any location subject to the need for such maintenance arising either from the unserviceability of the aircraft or from the necessity of supporting occasional line maintenance, subject to the conditions specified in the exposition; (d) Maintain any aircraft and/or component for which it is approved at a location identified as a line maintenance location capable of supporting minor maintenance and only if the organisation exposition both permits such activity and lists such locations; (e) Issue certificates of release to service in respect of completion of maintenance in accordance with 145.A.50.	(2) Arrange for another person to perform the maintenance, preventive maintenance, or alterations of any article for which the certificated repair station is rated. If that person is not certificated under part 145, the certificated repair station must ensure that the non-certificated person follows a quality control system equivalent to the system followed by the certificated repair station. (3) Approve for return to service any article for which it is rated after it has performed maintenance, preventive maintenance, or an alteration in accordance with part 43. (b) A certificated repair station may not maintain or alter any article for which it is not rated, and may not maintain or alter any article for which it is rated if it requires special technical data, equipment, or facilities that are not available to it. (c) A certificated repair station may not approve for return to service' (1) Any article unless the maintenance, preventive maintenance, or alteration was performed in accordance with the applicable approved technical data or data acceptable to the FAA. (2) Any article after a major repair or major alteration unless the major repair or major alteration was performed in accordance with applicable approved technical data; and (3) Any experimental aircraft after a major repair or major alteration performed under §43.1(b) unless the major repair or major alteration was performed in accordance with methods and applicable technical data acceptable to the FAA.	accordance with Appendix I, at a location described in its exposition; and 2. for an aircraft or an aeronautical product mentioned in subparagraph 1 — issuing a certificate of release to service for completion of maintenance in accordance with section 145.A.50. **145.A.75 Additional privileges of an AMO** In addition to the privileges of an AMO set out in regulation 145.040 of CASR 1998, an AMO may do the following things: 1. arrange for maintenance services to be carried out on behalf of the AMO by a Maintenance Services Subcontractor approved under Part 145 of CASR 1998 as an AMO for the maintenance services (approved); and 1A. for maintenance services for which the AMO is approved — arrange for the maintenance services to be carried out by a Maintenance Services Subcontractor that is not approved under the control of the quality system of the AMO, provided: (i) the Maintenance Services Subcontractor's facilities, personnel and procedures, meet the relevant requirements of Part 145 and this MOS for the contracted work; and (ii) the arrangement is in accordance with procedures set out in the AMO's exposition designed to ensure that: (A) the AMO confirms that the Maintenance Services Subcontractor meets the necessary standards for the maintenance; and (B) any maintenance is carried out in accordance with Instructions for Continuing Airworthiness; and (C) the AMO's procedures apply to the Maintenance Services Subcontractor; and (D) any limitations on the kind of work that the Maintenance Services Subcontractor may perform are complied with; and (iii) the maintenance services provided by the Maintenance Services Subcontractor do not include: (A) a base maintenance check as set out in the maintenance program for an aircraft; or (B) a complete workshop maintenance check or overhaul of an engine, engine module, or propeller. 2. at a location, other than a line station described in the AMO's exposition, provide maintenance services for an aircraft that is unserviceable or requires line maintenance, but only if:	unless major repair to approved data. CASR CRS: This is not ICAO compliant and is different to the EASR requirements **ICAO AW Manual**: A maintenance release is a certification which includes: a) details of the maintenance carried out including detailed reference of the approved data used. Where appropriate, a statement that all items required to be inspected was inspected by a qualified person who determined that the work was satisfactorily completed; b) the date such maintenance was completed and the total flight hours and cycles; c) when applicable, the identity of the AMO; and d) the identity and authorization of the person signing the release. The FAR system has adopted the global direction of including quality control as used under CAR 30. Even the EASR wording is superior to CASR/MoS

EASR	FAR	CASR (MoS)	Conceptual problems
		(i) the maintenance services are services for which the AMO is approved in accordance with Appendix I; and (ii) the location is capable of supporting the required maintenance; and (iii) the location has been identified and approved by the AMO as an appropriate temporary location for the maintenance in accordance with procedures set out in the AMO's exposition. 3. provide maintenance services for line maintenance of an aircraft for which the AMO is approved in accordance with Appendix I, at any location identified under subparagraph 145.A.70 (a) 10 as capable of supporting line maintenance and the AMO's exposition both authorises the activity and lists the location. 4. for maintenance services mentioned in this section — issue a certificate of release to service for completion of maintenance in accordance with section 145.A.50.	
	§145.203 Work performed at another location. A certificated repair station may temporarily transport material, equipment, and personnel needed to perform maintenance, preventive maintenance, alterations, or certain specialized services on an article for which it is rated to a place other than the repair station's fixed location if the following requirements are met: (a) The work is necessary due to a special circumstance, as determined by the FAA; or (b) It is necessary to perform such work on a recurring basis, and the repair station's manual includes the procedures for accomplishing maintenance, preventive maintenance, alterations, or specialized services at a place other than the repair station's fixed location.		FAR provides clarity
145.A.45 Maintenance data (a) The organisation shall hold and use applicable current maintenance data in the performance of maintenance, including modifications and repairs. 'Applicable' means relevant to any aircraft, component or process specified in the organisation's approval class rating schedule and in any associated capability list. In the case of maintenance data provided by an operator or customer, the organisation shall hold such data when the work is in progress, with the exception of the need to comply with 145.A.55(c).	**§145.205 Maintenance, preventive maintenance, and alterations performed for certificate holders under parts 121, 125, and 135, and for foreign air carriers or foreign persons operating a U.S.-registered aircraft in common carriage under part 129.** (a) A certificated repair station that performs maintenance, preventive maintenance, or alterations for an air carrier or commercial operator that has a continuous airworthiness maintenance program under part 121 or part 135 must follow the air carrier's or commercial operator's program and applicable sections of its maintenance manual.	**145.A.45. Instructions for continuing airworthiness, including maintenance data** (a) An AMO must: 1. subject to subparagraph (a) 4, hold current maintenance data applicable to any specific aircraft, aeronautical product or process listed on the AMO's approval class rating schedule for the performance of maintenance; and 2. ensure current applicable maintenance data is used when performing any maintenance, including modifications and repairs; and 3. if the AMO arranges for another person to provide the applicable maintenance data, ensure that procedures for	Under the FARs, the Part 121, 135 operators can do their own maintenance. This is when such operators contract some maintenance to Part 145 AMOs.

Comparison EASR, FAR & CASR/MoS Part 145

EASR	FAR	CASR (MoS)	Conceptual problems
(b) For the purposes of this Part, applicable maintenance data shall be any of the following: 1. Any applicable requirement, procedure, operational directive or information issued by the authority responsible for the oversight of the aircraft or component; 2. Any applicable airworthiness directive issued by the authority responsible for the oversight of the aircraft or component; 3. Instructions for continuing airworthiness, issued by type certificate holders, supplementary type certificate holders, any other organisation required to publish such data by Part-21 and in the case of aircraft or components from third countries the airworthiness data mandated by the authority responsible for the oversight of the aircraft or component; 4. Any applicable standard, such as but not limited to, maintenance standard practices recognised by the Agency as a good standard for maintenance; 5. Any applicable data issued in accordance with paragraph (d). (c) The organisation shall establish procedures to ensure that if found, any inaccurate, incomplete or ambiguous procedure, practice, information or maintenance instruction contained in the maintenance data used by maintenance personnel is recorded and notified to the author of the maintenance data. (d) The organisation may only modify maintenance instructions in accordance with a procedure specified in the maintenance organisation's exposition. With respect to those changes, the organisation shall demonstrate that they result in equivalent or improved maintenance standards and shall inform the type-certificate holder of such changes. Maintenance instructions for the purposes of this paragraph means instructions on how to carry out the particular maintenance task: they exclude the engineering design of repairs and modifications. (e) The organisation shall provide a common work card or worksheet system to be used throughout relevant parts of the organisation. In addition, the organisation shall either transcribe accurately the maintenance data contained in paragraphs (b) and (d) onto such work cards or worksheets or make precise reference to the particular maintenance task or tasks contained in such maintenance data. Work cards and worksheets may be computer generated and held on an electronic database subject to both adequate safeguards against unauthorised alteration and a back-up electronic database which shall be updated within 24 hours of any entry made to the main electronic database. Complex	(b) A certificated repair station that performs inspections for a certificate holder conducting operations under part 125 must follow the operator's FAA-approved inspection program. (c) A certificated repair station that performs maintenance, preventive maintenance, or alterations for a foreign air carrier or foreign person operating a U.S.-registered aircraft under part 129 must follow the operator's FAA-approved maintenance program. (d) Notwithstanding the housing requirement of §145.103(b), the FAA may grant approval for a certificated repair station to perform line maintenance for an air carrier certificated under part 121 or part 135, or a foreign air carrier or foreign person operating a U.S.-registered aircraft in common carriage under part 129 on any aircraft of that air carrier or person, provided— (1) The certificated repair station performs such line maintenance in accordance with the operator's manual, if applicable, and approved maintenance program; (2) The certificated repair station has the necessary equipment, trained personnel, and technical data to perform such line maintenance; and (3) The certificated repair station's operations specifications include an authorization to perform line maintenance.	maintaining the currency and appropriateness of the maintenance data are included in the AMO's exposition; and 4. where another person provides the applicable maintenance data, hold and use the data for the entire duration of the performance of the maintenance and in accordance with the records provisions in paragraph 145.A.55 (c). (b) An AMO may generate maintenance data for its own use, if: 1. there is no existing maintenance data covering the particular maintenance; and 2. the generation of a new maintenance data does not involve the creation of wear limits; and 3. the generation of the maintenance data is made in accordance with a procedure specified in the AMO's exposition that: (i) includes a process for approval of the data by the AMO's quality manager or a person nominated by the quality manager after the new procedure has been assessed and found to result in a safe standard of maintenance; and (ii) ensures that the person responsible for continuing airworthiness of the aircraft or aeronautical product is notified and agrees, in writing, with the use of the generated maintenance data for the aircraft or aeronautical product; and (iii) includes a process for notification of the details of the new maintenance data to a manufacturer, TC holder, STC holder or holder of the design or repair approval where applicable; and (iv) includes the provision for a paper, or an electronic traceability of the complete process of the data generation; and (v) ensures that the new maintenance data clearly identifies: (1) the source of the data; and (2) the approval process used for the data; and (3) currency or revision status of the data; and (vi) the exposition procedure describes the provision for retention and control of the maintenance data. (c) An AMO must have procedures in its exposition to ensure that: 1. if any procedure, practice, information, or maintenance instruction for an aircraft or an aeronautical product, as contained in the Instructions for Continuing Airworthiness (relevant ICA content) for use by the AMO, is identified as,	Adopt the FAR, it provides proper regulatory requirements CASR/MoS is more procedures than placing regulatory responsibility on the organisation.

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maintenance tasks shall be transcribed onto the work cards or worksheets and subdivided into clear stages to ensure a record of the accomplishment of the complete maintenance task. Where the organisation provides a maintenance service to an aircraft operator who requires their work card or worksheet system to be used then such work card or worksheet system may be used. In this case, the organisation shall establish a procedure to ensure correct completion of the aircraft operators' work cards or worksheets. (f) The organisation shall ensure that all applicable maintenance data is readily available for use when required by maintenance personnel. (g) The organisation shall establish a procedure to ensure that maintenance data it controls is kept up to date. In the case of operator/customer controlled and provided maintenance data, the organisation shall be able to show that either it has written confirmation from the operator/customer that all such maintenance data is up to date or it has work orders specifying the amendment status of the maintenance data to be used or it can show that it is on the operator/customer maintenance data amendment list.		or is reasonably believed to be, inaccurate, incomplete or ambiguous, then: (i) the relevant ICA content is not used for maintenance until it is corrected or clarified through communications under this paragraph; and (ii) the relevant ICA content is recorded, and communicated for correction or clarification to: (A) the person identified in the ICA as the author of the relevant ICA content; or (B) the continuing airworthiness management organisation (CAMO) responsible for the continuing airworthiness of the aircraft; and 2. the AMO keeps a record of all communications under sub-sub-subparagraph 1 (ii) (A) or 1 (ii) (B) until the person or CAMO has corrected or clarified the relevant ICA content. Note Instructions for Continuing Airworthiness is defined in clause 10 of Part 3 of the CASR 1998 Dictionary. (d) An AMO may only alter maintenance data for its own use, if: 1. the maintenance can be carried out in a more practical or efficient manner; or 2. the maintenance data cannot be complied with by following the existing maintenance instructions; or 3. the alteration of the maintenance data is for the use of tools or equipment not specified in the data; and the alteration of the maintenance data is made in accordance with a procedure specified in the AMO's exposition that: 4. includes a process for approval of the alteration by the AMO's quality manager or a person nominated by the quality manager after assessment establishes that the alteration provides an equivalent or improved maintenance standard; and 5. ensures that the person responsible for continuing airworthiness of the aircraft or aeronautical product is notified and agrees with the use of the altered maintenance data for the aircraft; and 6. includes a process for notification of the details of the alteration to the person identified in the maintenance data as author of the maintenance data; and 7. includes provision for a paper or an electronic traceability of the complete process of the alteration; and 8. ensures that the altered maintenance data clearly identifies: (i) the source of the altered data; and (ii) the approval process used for the alteration; and	

EASR	FAR	CASR (MoS)	Conceptual problems
		(iii) currency or revision status of the data; and 9. the exposition procedure describes the provision for retention and control of the altered data. (e) An AMO must comply with the following requirements: 1. the AMO must have an appropriate means of recording maintenance tasks, for example, on work sheets, work cards, or otherwise (maintenance records); 2. if the AMO provides maintenance services to a registered operator who requires records of maintenance to be made on the registered operator's own maintenance records — the AMO must ensure correct completion of the operator's maintenance records; 3. the AMO must ensure that maintenance data applicable to maintenance tasks is accurately recorded in the AMO's maintenance records, or the maintenance records must provide precise reference to maintenance tasks detailed in the maintenance data; 4. if the AMO's maintenance records involve use of a system of computer-generated work cards or work sheets — the AMO must ensure that the system includes a back-up electronic database that is updated within 24 hours after any entry is made to the original electronic database; 5. the AMO must ensure that: (i) complex maintenance tasks are divided into stages; and (ii) the maintenance records separately record the maintenance that is carried out in relation to each stage; and (iii) each stage is covered by an appropriate maintenance certification by the person who is competent for the stage, whether the certification is for the stage, for groups of stages or for all stages; 6. for subparagraph 145.A.35 (b) 4 — the AMO must ensure that maintenance tasks involving specialist maintenance, for which the competency required is held by more than 1 employee, are divided into separate stages, and that: (i) the maintenance records separately record the maintenance that is carried out in relation to each stage; and (ii) the maintenance certification of each stage is by the person who is competent for the stage; 7. the AMO's exposition must set out procedures to ensure compliance with each of the requirements in subparagraphs 1 to 6. (f) An AMO must ensure that all applicable Instructions for Continuing Airworthiness are readily available for use when required by maintenance personnel.	specialised

Comparison EASR, FAR & CASR/MoS Part 145

EASR	FAR	CASR (MoS)	Conceptual problems
		(g) An AMO must have a procedure in its exposition to ensure that Instructions for Continuing Airworthiness that it controls are kept up-to-date and for data provided by another person under subparagraph 145.A.45 (a) 3, the AMO must: 1. have written confirmation from the other person that all the Instructions for Continuing Airworthiness that it provides and controls are up-to-date; or 2. have work orders specifying the amendment status of the Instructions for Continuing Airworthiness to be used for that work; or 3. be able to show that the data is on the operator or customer's Instructions for Continuing Airworthiness amendment list.	
	§145.206 Notification of hazardous materials authorizations. (a) Each repair station must acknowledge receipt of the part 121 or part 135 operator notification required under §§121.1005(e) and 135.505(e) of this chapter prior to performing work for, or on behalf of that certificate holder. (b) Prior to performing work for or on behalf of a part 121 or part 135 operator, each repair station must notify its employees, contractors, or subcontractors that handle or replace aircraft components or other items regulated by 49 CFR parts 171 through 180 of each certificate holder's operations specifications authorization permitting, or prohibition against, carrying hazardous materials. This notification must be provided subsequent to the notification by the part 121 or part 135 operator of such operations specifications authorization/designation.		
145.A.70 Maintenance organisation exposition (a) 'Maintenance organisation exposition' means the document or documents that contain the material specifying the scope of work deemed to constitute approval and showing how the organisation intends to comply with this Part. The organisation shall provide the competent authority with a maintenance organisation exposition, containing the following information: 1. A statement signed by the accountable manager confirming that the maintenance organisation exposition and any referenced associated manuals define the organisation's compliance with this Part and will be complied with at all times. When the accountable manager is not the	**§145.207 Repair station manual.** (a) A certificated repair station must prepare and follow a repair station manual acceptable to the FAA. (b) A certificated repair station must maintain a current repair station manual. (c) A certificated repair station's current repair station manual must be accessible for use by repair station personnel required by subpart D of this part. (d) A certificated repair station must provide to its certificate holding district office the current repair station manual in a format acceptable to the FAA. (e) A certificated repair station must notify its certificate holding district office of each revision of its repair station	**145.A.70 AMO exposition** (a) An AMO must have an exposition that includes all of the following: 1. a statement signed by the accountable manager confirming that the exposition and any referenced associated documents demonstrate how the AMO will comply with this MOS; 2. the titles and names of individuals specified in paragraph 145.A.30 (b); 3. the duties and responsibilities of individuals nominated under paragraph 145.A.30 (b), including matters for which they may deal directly with CASA;	FAR manual contents make more sense in Australia. Less specific but addresses safety. CASA is trying to control work, not placing responsibility on organisation The real purpose of a company

EASR	FAR	CASR (MoS)	Conceptual problems
chief executive officer of the organisation then such chief executive officer shall countersign the statement; 2. the organisation's safety and quality policy as specified by 145.A.65; 3. the title(s) and name(s) of the persons nominated under 145.A.30(b); 4. the duties and responsibilities of the persons nominated under 145.A.30(b), including matters on which they may deal directly with the competent authority on behalf of the organisation; 5. an organisation chart showing associated chains of responsibility between the persons nominated under 145.A.30(b); 6. a list of certifying staff and B1 and B2 support staff; 7. a general description of manpower resources; 8. a general description of the facilities located at each address specified in the organisation's approval certificate; 9. a specification of the organisation's scope of work relevant to the extent of approval; 10. the notification procedure of 145.A.85 for organisation changes; 11. the maintenance organisation exposition amendment procedure; 12. the procedures and quality system established by the organisation under 145.A.25 to 145.A.90; 13. a list of commercial operators, where applicable, to which the organisation provides an aircraft maintenance service; 14. a list of subcontracted organisations, where applicable, as specified in 145.A.75(b); 15. a list of line stations, where applicable, as specified in 145.A.75(d); 16. a list of contracted organisations, where applicable. (b) The exposition shall be amended as necessary to remain an up-to-date description of the organisation The exposition and any subsequent amendment shall be approved by the competent authority. (c) Notwithstanding paragraph (b) minor amendments to the exposition may be approved through an exposition procedure (hereinafter called indirect approval).	manual in accordance with the procedures required by §145.209(j). **§145.209 Repair station manual contents.** A certificated repair station's manual must include the following: (a) An organizational chart identifying— (1) Each management position with authority to act on behalf of the repair station, (2) The area of responsibility assigned to each management position, and (3) The duties, responsibilities, and authority of each management position; (b) Procedures for maintaining and revising the rosters required by §145.161; (c) A description of the certificated repair station's operations, including the housing, facilities, equipment, and materials as required by subpart C of this part; (d) Procedures for— (1) Revising the capability list provided for in §145.215 and notifying the certificate holding district office of revisions to the list, including how often the certificate holding district office will be notified of revisions; and (2) The self-evaluation required under §145.215(c) for revising the capability list, including methods and frequency of such evaluations, and procedures for reporting the results to the appropriate manager for review and action; (e) Procedures for revising the training program required by §145.163 and submitting revisions to the certificate holding district office for approval; (f) Procedures to govern work performed at another location in accordance with §145.203; (g) Procedures for maintenance, preventive maintenance, or alterations performed under §145.205; (h) Procedures for— (1) Maintaining and revising the contract maintenance information required by §145.217(a)(2)(i), including submitting revisions to the certificate holding district office for approval; and (2) Maintaining and revising the contract maintenance information required by §145.217(a)(2)(ii) and notifying the certificate holding district office of revisions to this	4. an organisation chart showing chains of responsibility of managers under paragraph 145.A.30 (b); 5. a procedure to show, when and who can deputise for any responsible manager under paragraph 145.A.30 (b) in the case of a lengthy absence of that responsible manager; 6. a list of certifying employees; 7. a description of available human resources; 8. the address of each location that is a main location, and a description of the facilities at the location; Note See the definition of main location in section 145.A.12. 9. a description of maintenance on an aircraft that is line or base maintenance for the AMO; 10. a statement of the capability of the AMO to perform a maintenance service for which it is approved under Appendix I and the main and other locations at which it can perform those services; 11. the AMO's procedure for seeking CASA approval of significant changes to the AMO mentioned in Part 145 of CASR 1998; 12. the AMO's procedure for making changes to the exposition; 13. the AMO's: (i) quality and safety management systems; and (ii) procedures established to meet all the requirements of this MOS; 14. names of registered operators of passenger transport aircraft to whom the AMO will provide maintenance services; 15. addresses and descriptions of line stations as specified in paragraph 145.A.75 (c); 16. names of contracted organisations, including those engaged under section 145.A.75; 17. procedures as to how the AMO will comply with any requirement in this MOS that is not set out above. (b) An AMO must ensure its exposition is amended to remain up-to-date.	manual/exposition is to provide guidance to the employees on how the business meets regulatory requirements. CASA couldn't even adopt the EASR words without adding additional red tape and prescriptive requirements. The FAR approach is more ICAO compliant and meets standard business practices than the CASR/MoS approach.

EASR	FAR	CASR (MoS)	Conceptual problems
	information, including how often the certificate holding district office will be notified of revisions; (i) A description of the required records and the recordkeeping system used to obtain, store, and retrieve the required records; (j) Procedures for revising the repair station's manual and notifying its certificate holding district office of revisions to the manual, including how often the certificate holding district office will be notified of revisions; and (k) A description of the system used to identify and control sections of the repair station manual.		
145.A.65 Safety and quality policy, maintenance procedures and quality system (a) The organisation shall establish a safety and quality policy for the organisation to be included in the exposition under 145.A.70. (b) The organisation shall establish procedures agreed by the competent authority taking into account human factors and human performance to ensure good maintenance practices and compliance with this Part which shall include a clear work order or contract such that aircraft and components may be released to service in accordance with 145.A.50. 1. The maintenance procedures under this paragraph apply to 145.A.25 to 145.A.95. 2. The maintenance procedures established or to be established by the organisation under this paragraph shall cover all aspects of carrying out the maintenance activity, including the provision and control of specialised services and lay down the standards to which the organisation intends to work. 3. With regard to aircraft line and base maintenance, the organisation shall establish procedures to minimise the risk of multiple errors and capture errors on critical systems, and to ensure that no person is required to carry out and inspect in relation to a maintenance task involving some element of disassembly/reassembly of several components of the same type fitted to more than one system on the same aircraft during a particular maintenance check. However, when only one person is available to carry out these tasks then the organisation's work card or worksheet shall include an additional stage for re-inspection of the work by this person after completion of all the same tasks. 4. Maintenance procedures shall be established to ensure that damage is assessed and modifications and repairs are	**§145.211 Quality control system.** (a) A certificated repair station must establish and maintain a quality control system acceptable to the FAA that ensures the airworthiness of the articles on which the repair station or any of its contractors performs maintenance, preventive maintenance, or alterations. (b) Repair station personnel must follow the quality control system when performing maintenance, preventive maintenance, or alterations under the repair station certificate and operations specifications. (c) A certificated repair station must prepare and keep current a quality control manual in a format acceptable to the FAA that includes the following: (1) A description of the system and procedures used for— (i) Inspecting incoming raw materials to ensure acceptable quality; (ii) Performing preliminary inspection of all articles that are maintained; (iii) Inspecting all articles that have been involved in an accident for hidden damage before maintenance, preventive maintenance, or alteration is performed; (iv) Establishing and maintaining proficiency of inspection personnel; (v) Establishing and maintaining current technical data for maintaining articles; (vi) Qualifying and surveilling non-certificated persons who perform maintenance, prevention maintenance, or alterations for the repair station; (vii) Performing final inspection and return to service of maintained articles; (viii) Calibrating measuring and test equipment used in maintaining articles, including the intervals at which the equipment will be calibrated; and	**145.A.65 Safety and quality policy, maintenance procedures and management systems** (a) An AMO's exposition must contain safety and quality policies which: 1. show safety as the overriding consideration at all times; and 2. encourage employees to report to the AMO maintenance-related incidents and errors; and 3. require all employees to: (i) comply with quality and safety standards and procedures; and (ii) co-operate with requests from independent quality auditors relating to maintenance services the employees provide. (b) An AMO must have procedures in its exposition that ensure good maintenance practices and compliance with this MOS, including procedures for the following: 1. taking into account human factors principles and human performance limitations; and 2. maintaining documents and forms that ensure aircraft and aeronautical products are released to service in accordance with section 145.A.50; and 3. ensuring compliance to the requirements of section 145.A.25; and 4. covering all aspects of the provision of maintenance services; and 5. setting out the standards, including process standards and employee competency standards to which the AMO will work; and 5A. the training and assessment of an employee who is to receive any training and assessment mentioned in section 145.A.37, including training and assessment that is not provided by the AMO itself;	FAA has now adopted Quality Systems just like CAR30. This is in line with world's best business practice FAR approach should be adopted.

EASR	FAR	CASR (MoS)	Conceptual problems
carried out using data approved by the Agency or by an approved Part-21 design organisation, as appropriate. (c) The organisation shall establish a quality system that includes the following: 1. Independent audits in order to monitor compliance with required aircraft/aircraft component standards and adequacy of the procedures to ensure that such procedures invoke good maintenance practices and airworthy aircraft/aircraft components. In the smallest organisations the independent audit part of the quality system may be contracted to another organisation approved under this Part or a person with appropriate technical knowledge and proven satisfactory audit experience; and 2. A quality feedback reporting system to the person or group of persons specified in 145.A.30(b) and ultimately to the accountable manager that ensures proper and timely corrective action is taken in response to reports resulting from the independent audits established to meet paragraph (1).	(ix) Taking corrective action on deficiencies; (2) References, where applicable, to the manufacturer's inspection standards for a particular article, including reference to any data specified by that manufacturer; (3) A sample of the inspection and maintenance forms and instructions for completing such forms or a reference to a separate forms manual; and (4) Procedures for revising the quality control manual required under this section and notifying the certificate holding district office of the revisions, including how often the certificate holding district office will be notified of revisions. (d) A certificated repair station must notify its certificate holding district office of revisions to its quality control manual.	6. ensuring that any employee does not perform any work in relation to maintenance of an aircraft or aeronautical product, if that employee's capacity to perform the work is significantly impaired; and 7. ensuring that any damage is assessed and modifications and repairs are carried out using a design approval approved, or deemed approved, under Subpart 21M of CASR 1998; and 8. for aircraft maintenance: (i) capturing maintenance errors; and (ii) ensuring that maintenance is appropriately allocated to employees to avoid 1 employee simultaneously performing similar tasks on more than 1 system on the same aircraft; and (iii) where the requirements in sub-subparagraph (ii) cannot be met because only 1 individual is available, ensuring an additional inspection stage by the individual after he or she has completed the maintenance. (c) An AMO must have in its exposition, and comply with, a written quality management system that includes: 1. the requirement for independent surveillance and quality audits to be conducted at intervals of not more than every 12 months after the issue of a Part 145 approval under the control of an individual that is not a responsible manager of the AMO, to ensure that: (i) all aspects of regulatory compliance are checked; and (ii) required aircraft or aeronautical product maintenance standards are met; and (iii) the AMO's procedures are adequate to meet the requirement of sub-subparagraph 145.A.65 (c) 1 (ii); and 2. a system of remedial corrective and preventative action and feedback that: (i) communicates audit findings to individuals mentioned in paragraph 145.A.30 (b) and to the accountable manager; and (ii) ensures timely corrective action is taken in response to reports resulting from the independent audits required by subparagraph 145.A.65 (c) 1; and 3. control processes for identification, legibility, storage, protection, archiving, retrieval and retention of all records associated with the requirements of this MOS; and 4. a system for regular review of the quality management system to ensure its continuing suitability, adequacy and effectiveness, including assessment of opportunities for improvement and the need for changes to the system; and	

EASR	FAR	CASR (MoS)	Conceptual problems
		5. if an AMO uses a Maintenance Services Subcontractor under the provisions of paragraph 145.A.75 (a), the AMO's quality system, or subcontract control procedures, also includes: (i) procedures for performance of pre-contract auditing of the Maintenance Services Subcontractor's work to determine whether the Maintenance Services Subcontractor is able to provide services to a standard that will enable the AMO to meet its obligations under this MOS; and (ii) performance and recording of sample audits of services provided by the Maintenance Services Subcontractor for the AMO and a record of when the Maintenance Services Subcontractor is used; and (iii) a corrective action follow-up plan that includes termination of the arrangements with the Maintenance Services Subcontractor if services provided by the Maintenance Services Subcontractor do not meet the AMO's standards. (d) An AMO must have in its exposition, and comply with, a written safety management system (SMS) for the AMO, which must, as a minimum, include: 1. a statement of the AMO's safety policy and objectives, including documented details of the following: (i) the management commitment to, and responsibility for, safety risk management; (ii) the safety accountabilities of managers; (iii) the appointment of key safety personnel; (iv) an SMS implementation plan; Note See the definition in section 145.A.12. (v) the relevant third party relationships and interactions; (vi) the coordination of the emergency response plan; and 2. a safety risk management plan, including documented details of the following: (i) hazard identification processes; (ii) risk assessment and mitigation processes, including procedures for the remedial, corrective and preventative actions for the mitigation of risk associated with identified hazards; and 3. a safety assurance system, including documented procedures for: (i) safety performance monitoring and measurement; and (ii) the management of change; and	

EASR	FAR	CASR (MoS)	Conceptual problems
		(iii) communication of safety findings to individuals mentioned in paragraph 145.A.30 (b), to the accountable manager and to authors of safety reports; and (iv) continuous improvement, including regular reviews, of the SMS; and 4. a safety promotion system, including documented details of the following: (i) training and education; (ii) safety communication to all employees of the AMO; and 5. an internal reporting system and associated investigation process which must: (i) regularly record and analyse safety data received from the AMO's internal reporting system required under section 145.A.60 and from operators or third parties mentioned in sub-subparagraph 145.A.65 (d) 1 (v) and from the hazard identification and reporting processes mentioned in sub-subparagraph 145.A.65 (d) 2 (i); and (ii) be integrated into the safety assurance system mentioned in subparagraph 145.A.65 (d) 3.	
	§145.213 Inspection of maintenance, preventive maintenance, or alterations. (a) A certificated repair station must inspect each article upon which it has performed maintenance, preventive maintenance, or alterations as described in paragraphs (b) and (c) of this section before approving that article for return to service. (b) A certificated repair station must certify on an article's maintenance release that the article is airworthy with respect to the maintenance, preventive maintenance, or alterations performed after— (1) The repair station performs work on the article; and (2) An inspector inspects the article on which the repair station has performed work and determines it to be airworthy with respect to the work performed. (c) For the purposes of paragraphs (a) and (b) of this section, an inspector must meet the requirements of §145.155. (d) Except for individuals employed by a repair station located outside the United States, only an employee appropriately certificated as a mechanic or repairman under part 65 is authorized to sign off on final inspections and maintenance releases for the repair station.		The FAR has a higher maintenance governance level than we currently apply. Aircraft/components must be airworthy prior to release to service.

Comparison EASR, FAR & CASR/MoS Part 145

EASR	FAR	CASR (MoS)	Conceptual problems
145.A.80 Limitations on the organisation The organisation shall only maintain an aircraft or component for which it is approved when all the necessary facilities, equipment, tooling, material, maintenance data and certifying staff are available.	**§145.215 Capability list.** (a) A certificated repair station with a limited rating may perform maintenance, preventive maintenance, or alterations on an article if the article is listed on a current capability list acceptable to the FAA or on the repair station's operations specifications. (b) The capability list must identify each article by make and model or other nomenclature designated by the article's manufacturer and be available in a format acceptable to the FAA. (c) An article may be listed on the capability list only if the article is within the scope of the ratings of the repair station's certificate, and only after the repair station has performed a self-evaluation in accordance with the procedures under §145.209(d)(2). The repair station must perform this self-evaluation to determine that the repair station has all of the housing, facilities, equipment, material, technical data, processes, and trained personnel in place to perform the work on the article as required by part 145. The repair station must retain on file documentation of the evaluation. (d) Upon listing an additional article on its capability list, the repair station must provide its certificate holding district office with a copy of the revised list in accordance with the procedures required in §145.209(d)(1).		FAR Capability List is reducing Operation Specifications This should be adopted simply for the clarity it brings.
	§145.217 Contract maintenance. (a) A certificated repair station may contract a maintenance function pertaining to an article to an outside source provided— (1) The FAA approves the maintenance function to be contracted to the outside source; and (2) The repair station maintains and makes available to its certificate holding district office, in a format acceptable to the FAA, the following information: (i) The maintenance functions contracted to each outside facility; and (ii) The name of each outside facility to whom the repair station contracts maintenance functions and the type of certificate and ratings, if any, held by each facility. (b) A certificated repair station may contract a maintenance function pertaining to an article to a non-certificated person provided—		Contract Maintenance Adopt FAR

EASR	FAR	CASR (MoS)	Conceptual problems
	(1) The non-certificated person follows a quality control system equivalent to the system followed by the certificated repair station; (2) The certificated repair station remains directly in charge of the work performed by the non-certificated person; and (3) The certificated repair station verifies, by test and/or inspection, that the work has been performed satisfactorily by the non-certificated person and that the article is airworthy before approving it for return to service. (c) A certificated repair station may not provide only approval for return to service of a complete type-certificated product following contract maintenance, preventive maintenance, or alterations.		
	§145.219 Recordkeeping. (a) A certificated repair station must retain records in English that demonstrate compliance with the requirements of part 43. The records must be retained in a format acceptable to the FAA. (b) A certificated repair station must provide a copy of the maintenance release to the owner or operator of the article on which the maintenance, preventive maintenance, or alteration was performed. (c) A certificated repair station must retain the records required by this section for at least 2 years from the date the article was approved for return to service. (d) A certificated repair station must make all required records available for inspection by the FAA and the National Transportation Safety Board.		Crucial that FAR Part 43 be adopted at the same time.
145.A.60 Occurrence reporting (a) The organisation shall report to the competent authority, the state of registry and the organisation responsible for the design of the aircraft or component any condition of the aircraft or component identified by the organisation that has resulted or may result in an unsafe condition that hazards seriously the flight safety. (b) The organisation shall establish an internal occurrence reporting system as detailed in the exposition to enable the collection and evaluation of such reports, including the assessment and extraction of those occurrences to be reported under paragraph (a). This procedure shall identify adverse trends, corrective actions taken or to be taken by the organisation to address deficiencies and include evaluation of all known relevant information relating to such occurrences and a method to circulate the information as necessary.	**§145.221 Service difficulty reports.** (a) A certificated repair station must report to the FAA within 96 hours after it discovers any serious failure, malfunction, or defect of an article. The report must be in a format acceptable to the FAA. (b) The report required under paragraph (a) of this section must include as much of the following information as is available: (1) Aircraft registration number; (2) Type, make, and model of the article; (3) Date of the discovery of the failure, malfunction, or defect; (4) Nature of the failure, malfunction, or defect; (5) Time since last overhaul, if applicable; (6) Apparent cause of the failure, malfunction, or defect; and	**145.A.60 Occurrence and major defect reporting** (a) An AMO must have an internal occurrence reporting, investigation and feedback system set out in its exposition, which utilises fair, open and effective reporting principles and which it will follow for reporting and following up on maintenance and safety issues that are found during the carrying out of maintenance on an aircraft or aeronautical product. The procedures must include procedures for: 1. collecting and evaluating individual maintenance difficulty and safety reports; and 2. identifying adverse trends in all of the AMO's occurrence reports; and 3. identifying systemic deficiencies; and 4. taking corrective action to address systemic deficiencies; and	FAR & EASR has the right interpretation. It is not the AMO role to evaluate – it is to report manufacturer/NAA CASA has mixed the Annex 8 requirements for service difficulty reporting and the AMO's SMS responsibility. Adopting a QS does the same thing.

EASR	FAR	CASR (MoS)	Conceptual problems
(c) The organisation shall make such reports in a form and manner established by the Agency and ensure that they contain all pertinent information about the condition and evaluation results known to the organisation. (d) Where the organisation is contracted by a commercial operator to carry out maintenance, the organisation shall also report to the operator any such condition affecting the operator's aircraft or component. (e) The organisation shall produce and submit such reports as soon as practicable but in any case within 72 hours of the organisation identifying the condition to which the report relates.	(7) Other pertinent information that is necessary for more complete identification, determination of seriousness, or corrective action. (c) The holder of a repair station certificate that is also the holder of a part 121, 125, or 135 certificate; type certificate (including a supplemental type certificate); parts manufacturer approval; or technical standard order authorization, or that is the licensee of a type certificate holder, does not need to report a failure, malfunction, or defect under this section if the failure, malfunction, or defect has been reported under parts 21, 121, 125, or 135 of this chapter. (d) A certificated repair station may submit a service difficulty report for the following: (1) A part 121 certificate holder, provided the report meets the requirements of part 121 of this chapter, as appropriate. (2) A part 125 certificate holder, provided the report meets the requirements of part 125 of this chapter, as appropriate. (3) A part 135 certificate holder, provided the report meets the requirements of part 135 of the chapter, as appropriate. (e) A certificated repair station authorized to report a failure, malfunction, or defect under paragraph (d) of this section must not report the same failure, malfunction, or defect under paragraph (a) of this section. A copy of the report submitted under paragraph (d) of this section must be forwarded to the certificate holder.	5. following up and monitoring corrective action to ensure maintenance and safety issues have been adequately addressed; and 6. distributing information about the occurrence reports, their evaluation and follow-up action. (b) An AMO may use the internal occurrence reporting system to identify and report any major defect of an aircraft or aeronautical product maintained by the AMO in accordance with regulations 42.380 and 42.385 of CASR 1998. (c) An AMO must submit major defect reports referred to in paragraph (b) within 2 days of identifying the condition to which the report relates in accordance with regulation 42.390 of CASR 1998. (d) For paragraph (a), utilising fair, open and effective reporting principles means that the AMO has a formal written policy (the policy) and an invariable practice that, subject to paragraph (e), a person who reports an internal occurrence which arose directly or indirectly from the person's behaviour will not be punished or otherwise treated adversely because of the internal occurrence or the person's reporting of it. (e) for paragraph (d): 1. behaviour means any action, omission or decision of the person that: (i) is commensurate with his or her experience and training; and (ii) does not involve gross negligence, wilful violation of any rule, requirement or practice of the AMO, or a destructive act; and 2. the report must be made as soon as required under the policy, and to the appropriate person in accordance with the policy; and 3. a requirement by the AMO that the person undergo training in relation to the internal occurrence is not adverse treatment.	
	§145.223 FAA inspections. (a) A certificated repair station must allow the FAA to inspect that repair station at any time to determine compliance with this chapter. (b) A certificated repair station may not contract for the performance of a maintenance function on an article with a non-certificated person unless it provides in its contract with the non-certificated person that the FAA may make an		Same as CAR 30 Should be in CASR Part145

EASR	FAR	CASR (MoS)	Conceptual problems
	inspection and observe the performance of the non-certificated person's work on the article. (c) A certificated repair station may not return to service any article on which a maintenance function was performed by a non-certificated person if the non-certificated person does not permit the FAA to make the inspection described in paragraph (b) of this section.		

As can be seen above, the modernisation of the FAR system which took the FAA 20 years to complete, is written more for aircraft line and base maintenance as is the EASR Part 145.

Adopting the FAR or EASR could disenfranchise many current component workshops approved under CAR 30.

Appendix A

ICAO: An manual/exposition, to be effective, needs to "provide for the use and guidance of maintenance personnel" as specified in ICAO Annex 6, Part 1, paragraph 8.7.2.

Annex 6. 8.7.2 Maintenance organization's procedures manual

8.7.2.1 The maintenance organization shall provide for the use and guidance of maintenance personnel concerned a procedures manual which may be issued in separate parts containing the following information:

a) a general description of the scope of work authorized under the organization's terms of approval;

b) a description of the organization's procedures and quality or inspection system in accordance with 8.7.4;

c) a general description of the organization's facilities;

d) names and duties of the person or persons required by **8.7.6.1**;

e) a description of the procedures used to establish the competence of maintenance personnel as required by **8.7.6.3;**

f) a description of the method used for the completion and retention of the maintenance records required by **8.7.7**;

g) a description of the procedures for preparing the maintenance release and the circumstances under which the release is to be signed;

h) the personnel authorized to sign the maintenance release and the scope of their authorization;

i) a description, when applicable, of the additional procedures for complying with an operator's maintenance procedures and requirements;

j) a description of the procedures for complying with the service information reporting requirements of **Annex 8, Part II, 4.3.5 and 4.3.8**; and

k) a description of the procedure for receiving, assessing, amending and distributing within the maintenance organization all necessary airworthiness data from the type certificate holder or type design organization.

8.7.2.2 The maintenance organization shall ensure that the procedures manual is amended as necessary to keep the information contained therein up to date.

8.7.2.3 Copies of all amendments to the procedures manual shall be furnished promptly to all organizations or persons to whom the manual has been issued.

8.7.4 Maintenance procedures and quality assurance system

8.7.4.1 The maintenance organization shall establish procedures, acceptable to the State granting the approval, which ensure good maintenance practices and compliance with all relevant requirements of this chapter.

8.7.4.2 The maintenance organization shall ensure compliance with 8.7.4.1 by either establishing an independent quality assurance system to monitor compliance with an adequacy of the procedures, or by providing a system of inspection to ensure that all maintenance is properly performed.

8.7.6 Personnel

8.7.6.1 The maintenance organization shall nominate a person or group of persons whose responsibilities include ensuring that the maintenance organization is in compliance with the requirements of 8.7 for an approved maintenance organization.

8.7.6.2 The maintenance organization shall employ the necessary personnel to plan, perform, supervise, inspect and release the work to be performed.

8.7.6.3 The competence of maintenance personnel shall be established in accordance with a procedure and to a level acceptable to the State granting the approval. The person signing a maintenance release shall be qualified in accordance with Annex 1.

8.7.6.4 The maintenance organization shall ensure that all maintenance personnel receive initial and continuation training appropriate to their assigned tasks and responsibilities. The training programme established by the maintenance organization shall include training in knowledge and skills related to human performance, including coordination with other maintenance personnel and flight crew.

Note.— Guidance material to design training programmes to develop knowledge and skills in human performance can be found in the Human Factors Training Manual *(Doc 9683)*.