Australian Government
Civil Aviation Safety Authority

ADVISORY CIRCULAR
AC 66-08 v1.3

Part 66 aircraft engineer licences – privileges

Date December 2022

File ref D22/487931

Advisory circulars are intended to provide advice and guidance to illustrate a means, but not necessarily the only means, of complying with the Regulations, or to explain certain regulatory requirements by providing informative, interpretative and explanatory material.

Advisory circulars should always be read in conjunction with the relevant regulations.

Audience

This advisory circular (AC) applies to:

- licensed aircraft maintenance engineers (LAMEs)
- approved maintenance organisations (AMOs) (Part 145 — of the *Civil Aviation Safety Regulations 1998* (CASR))
- certificate of approval holders for aircraft maintenance (regulation 30 of the *Civil Aviation Regulations 1988* (CAR)).

Purpose

This AC provides information and guidance to current and future holders of a Part 66 aircraft maintenance engineer licence and AMOs, on the privileges of each category of a Part 66 licence.

For further information

For further information, contact CASA's Airworthiness and Engineering Branch (telephone 131 757).

Status

This version of the AC is approved by the Branch Manager, Airworthiness and Engineering.

Note: Changes made in the current version are not annotated. The document should be read in full.

Version	Date	Details
v1.3	December 2022	Administrative review only.
v1.2	July 2022	Minor update – addition of a Note to paragraph 3.4.2.1 (Category B1 licence privileges) and paragraph 3.5.3.2 (Category B2 licence privileges).
v1.1	November 2020	Minor updates made to the category B1 and B2 licence - certification flowcharts at Appendix C.
v1.0	August 2020	Initial issue.

Unless specified otherwise, all subregulations, regulations, Divisions, Subparts and Parts referenced in this AC are references to the *Civil Aviation Safety Regulations 1998 (CASR).*

Contents

1 Reference material

1.1 Acronyms

The acronyms and abbreviations used in this AC are listed in the table below.

Acronym	Description
AC	advisory circular
AMC	acceptable means of compliance
AMO	approved maintenance organisation
ASTM	American Society for Testing and Materials
ATA	Air Transport Association
CAMO	Continuing Airworthiness Management Organisation
CAR	*Civil Aviation Regulations 1988*
CASA	Civil Aviation Safety Authority
CASR	*Civil Aviation Safety Regulations 1998*
COA	certificate of approval (issued under regulation 30 of CAR)
CRS	certificate of release to service
EASA	European Aviation Safety Agency
EDTO	Extended Diversion Time Operation
FIM	Fault Isolation Manual
GM	guidance material
GVI	general visual inspection
ICAO	International Civil Aviation Organisation
IFR	Instrument Flight Rules
LAME	licensed aircraft maintenance engineer
LRU	line replaceable unit
MEL	minimum equipment list
MOS	Manual of Standards
MTO	maintenance training organisation
NDT	non-destructive testing
RPL	recognition of prior learning
SOE	schedule of experience
TSM	Troubleshooting Manual
VFR	Visual Flight Rules

1.2 Definitions

Terms that have specific meaning within this AC are defined in the table below.

Term	Definition
aircraft type	(a) a particular type, or type and model, of large aircraft with a particular type of aircraft engine. or (b) a large aircraft with a particular type of aircraft engine. or (c) a small aircraft with a particular type of aircraft engine. **Note**: For paragraph (b), aircraft mentioned in this paragraph are known as 'non-rated aircraft'. Example 1: For paragraph (a), Airbus A310(GE CF6) Example 2: For paragraph (a), Boeing 747-400 (RR RB211) Example 3: For paragraph (b), non-rated aircraft (PWC PT6) Example 4: For paragraph (b), non-rated aircraft (Honeywell TPE331) Example 5: For paragraph (c), small aircraft (PWC PT6) Example 6: For paragraph (c), small aircraft (Honeywell TPE331)
AMO	An organisation approved by CASA under Part 145 as an approved maintenance organisation to carry out maintenance.
ATA	Air Transport Association. ATA is a publication referencing standard, commonly used for all commercial aircraft documentation.
avionic line replaceable unit (LRU)	An aircraft avionic part that satisfies all the following requirements: 1. it must have no mechanical input from, or output to, another part or mechanism 2. it must contain only electrical, electronic, instrument or radio parts, or software, or a combination of any such part or parts and software, designed to provide control, monitor or display functions, or a combination of such functions 3. it must not require any of the following in order to be installed, secured or connected to the aircraft: a. specialist knowledge or techniques b. specialised equipment c. rigging, or functional testing or adjustment, using specialised equipment external to the aircraft or brought on board the aircraft, to ensure that it is functioning properly. **Note:** Component software loading is considered an Avionic LRU when associated with a component removal/installation task, BUT the repair, rebuilding and major modification of system software is not. This remains the responsibility of the B2 LAME.
avionic system	An aircraft system that transfers, processes, displays or stores analogue or digital data using data lines, data buses, coaxial cables, wireless or other data transmission medium, and includes the system's components and connectors. Examples of avionics systems include the following: • autoflight • communication, radar and navigation • instruments • in-flight entertainment systems • integrated modular avionics (IMA) • cabin systems • on-board maintenance systems • information systems (e.g. Network server system)

Term	Definition
	• fly-by-wire systems (related to ATA27 'Flight Controls') • fibre optic control systems. **Note:** Refer to Table D under section A.1.1 of Appendix A of this AC for clarification of which systems of the aircraft are designated as avionic systems.
Base maintenance	Any task falling outside the criteria that are given in the definition for line maintenance.
CAMO	An organisation approved by CASA under Part 42 as a continuing airworthiness management organisation responsible for managing the continuing airworthiness of an aircraft.
CAR 30	An organisation approved by CASA under regulation 30 of CAR to carry out maintenance.
Certification authorisation	An authorisation that an approved maintenance organisation grants to an individual in accordance with the Part 42 MOS or the Part 145 MOS to perform maintenance certification and/or issue a certificate of release to service on behalf of the organisation.
Certificate of release to service	For an aircraft—a document that complies with subregulation 42.760(1), and for an aeronautical product—a document that complies with subregulation 42.810(1) or (2).
Composite structure	Aircraft structure (such as, but not limited to —fuselage, wings, fairings, engine and nose cowlings, flight control surfaces, fixed leading and trailing edge panels access covers/panels, cabin floorboards and other cabin furnishings etc), of fibre-reinforced plastic (FRP) composite, metal to metal or non-metal bonded, or sandwich/honeycomb construction.
Composite structure maintenance	Maintenance carried out to aircraft structure of fibre-reinforced plastic (FRP) composite, metal to metal or non-metal bonded, or sandwich/honeycomb construction.
Electrical system	The aircraft electrical power supply source, plus the distribution system to the different components contained in the aircraft and relevant connectors. Lighting systems are also included in this definition. When working on wiring and connectors which are part of these electrical systems, the following typical practices are included in the privilege: • continuity, insultation and bonding techniques and testing • crimping and testing of crimped joints • connector pin removal and insertion • wiring protection techniques. **Note:** Wiring and connector 'typical practices' privileges are limited to ATA chapters designated as mechanical, powerplant and electrical systems, and not avionics systems.
Exclusion	A limitation applied to a Part 66 aircraft maintenance engineer licence that excludes the holder of the licence from certification privileges for a particular aircraft system.
Line maintenance	Any maintenance that is carried out before flight to ensure that the aircraft is fit for the intended flight. Line maintenance may include: • troubleshooting • defect rectification • aeronautical product replacement with use of external test equipment, if required. (aeronautical product replacement may include products such as engines and propellers)

Term	Definition
	• scheduled maintenance and/or checks including visual inspections that will detect obvious unsatisfactory conditions/discrepancies but do not require extensive in-depth inspection. It may also include internal structure, systems and powerplant items which are visible through quick opening access panels/doors • minor repairs and modifications which do not require extensive disassembly and can be accomplished by simple means.
Maintenance certification	A certification performed after completion of maintenance carried out on an aircraft.
MTO	An organisation approved by CASA under Part 147 as an approved maintenance training organisation to carry out training.
Multi-generator system	A system that has two (or more) independent generating systems operating in parallel, with either system able to provide power to all aircraft systems in the event of the failure of the other system. **Notes:** 1. A multi-generator system has the ability to balance the outputs of each system (e.g. with the use of a generator control unit (GCU)) 2. A multi-generator system can load share and isolate a faulty system output, enabling the serviceable generator to provide power to all aircraft systems in the event of failure of either system.
Powerplant	An aircraft engine.
Recognition of prior learning (RPL)	Prior learning that has delivered knowledge or competency by a theoretical or practical element, which is at least equivalent to the knowledge, competency, theoretical or practical element that is otherwise required in the absence of RPL. **Note:** Under provisions of this MOS, passing examinations, holding units of competency and holding prerequisite qualifications or prerequisite units of competency may be by means of RPL.
Rating	An authorisation granted under regulation 66.080 or 66.095 of Part 66, being a permission: 1. to perform a maintenance certification, under a category B1 or B2 licence, for maintenance carried out on a particular aircraft type; or 2. to issue a certificate of release to service, under a category B1, B2, or C licence, for an aircraft of a particular aircraft type in relation to maintenance carried out on the aircraft.
Simple test	A test described in approved maintenance data and meeting **all** the following criteria: • the serviceability of the system can be verified using aircraft controls, switches, built-in test equipment (BITE), central maintenance computer (CMC) or external test equipment not involving special training • the outcome of the test is a unique go/no-go indication or parameter, which can be a single value or a value within an interval tolerance. No interpretation of the test result or interdependence of different values is allowed • the test does not involve more than 10 actions as described in the approved maintenance data (not including those required to configure the aircraft prior to the test, i.e. jacking, flaps down, etc, or to return the aircraft to its initial configuration). Pushing a control, switch or button, and reading the corresponding outcome may be considered as a single action even if the maintenance data shows them separated.

Term	Definition
	Notes: 1. Performing troubleshooting steps outlined in approved maintenance data within an avionic ATA chapter which includes a wiring check — if data does not stipulate a 'specific' result or finding (e.g. continuity, 28vdc, 500 ohms between or a range of figures or values), then any outcome of the test is open to interpretation (i.e. not a go/no-go result) and therefore does NOT meet the **simple test** criteria. 2. The total of 10 actions includes consequential actions associated with tests of other components or systems, required by the maintenance data, following the LRU change; e.g. if component A is replaced and the maintenance data includes actions to test component B and system C, the sum of all the actions for testing components A, B and system C must be no more than 10 actions.
Single generator system	A system that has one primary generating system able to provide power to all aircraft systems, typically with a backup low capacity generator or alternator able to provide power to essential flight system equipment.
Specialised test equipment	Test equipment designed to perform a specific function, and which requires operator training before use. **Note:** If training on test equipment is required and that training is not covered and practiced in the syllabus for the licence category training or aircraft type training, then that test equipment is deemed to be specialised test equipment.
Specially qualified person	A person who: • holds a category B1 licence issued under Part 66; and • is also 1 of the following: ○ a person who was trained and licenced under the CAR 31 licensing system to perform maintenance of composite structured aircraft, provided that the person's licence had not been cancelled by CASA; or ○ a person who holds at least 1 of the following: a. AQF qualification MEA405; b. a Transport Canada AME licence endorsed with an 'S' rating; c. a New Zealand AME licence endorsed with an aeroplane Group 4 rating; d. another qualification approved in writing by CASA as an appropriate qualification for performing composite maintenance; e. an authorisation issued by CASA under subregulation 42ZC (6) of CAR to perform composite maintenance.
Subsystem	A system that works within and is part of a larger system and includes: • the electrical subsystem comprised of electrical parts/components, appliances and motors, within a mechanical, powerplant and structural system or • the instrument system comprised of instrument and avionic parts/components within mechanical, powerplant and structural systems.
supervision of maintenance	In relation to maintenance that is being done by a person — is being carried out under the supervision of a person (the supervisor) who: • is physically present at the place the maintenance is being carried out; and • is observing the maintenance being carried out to the extent necessary to enable the supervisor to form an opinion as to whether the maintenance is being carried out properly; and

Term	Definition
	• is available to give advice to, and answer questions about the maintenance from, the person carrying it out.
troubleshooting	The procedures and actions taken as necessary, using approved maintenance data (e.g. following approved fault isolation procedures and data), in order to identify the root cause of a defect or malfunction. **Notes:** 1. Troubleshooting may involve avionic LRU changes, however, it does not involve repeated avionic LRU changes in pursuit of a system fault, unless the repeated changes are made in accordance with a published and approved fault isolation maintenance procedure (e.g. Troubleshooting Manual, FIM procedure). *2.* Ongoing avionic defects with a history, once a FIM procedure has been followed and exhausted, should only be certified by a category B2 LAME, given the B2 LAME has received the required level 3 knowledge training, i.e. full system knowledge, which enables judgement to be used in decisions.

1.3 References

Legislation

Legislation is available on the Federal Register of Legislation website https://www.legislation.gov.au/

Document	Title
Part 66 of CASR	Continuing airworthiness—aircraft engineer licences and ratings
Part 66 MOS	Part 66 Manual of Standards
Part 145 MOS	Part 145 Manual of Standards
Regulation 30 of CAR	Certificate of approval
Regulation 31 of CAR (CAR 31 repealed)	Aircraft maintenance engineer licences
Regulation 42ZE of CAR	Certification of completion of maintenance on aircraft in Australian territory

Advisory material

CASA's advisory materials are available at https://www.casa.gov.au/publications-and-resources/guidance-materials

Document	Title
AC 66-4	Maintenance of aircraft composite structures in a maintenance organisation
AC 66-05	Using a Part 66 licence to provide certifications for completion of maintenance under the *Civil Aviation Regulations 1988*
AMC/GM CASR Part 66	Continuing airworthiness—Aircraft engineer licences and ratings
AMC/GM CASR Part 145	Approved maintenance organisation requirements
AWB 20-002	Use of visible (red) dye liquid penetrant with inspection of safety critical components
ASTM E1417/E1417M-16	Standard practice for liquid penetrant testing

2 Part 1 — General information

2.1 Civil aviation legislation

2.1.1 CASA operates within a legislative framework made up of acts, regulations, associated legislative instruments and guidance material. The two primary pieces of legislation applicable to aircraft maintenance engineer licensing are:

- regulations under Part 66 of the *Civil Aviation Safety Regulations 1998* (CASR)
- standards under the Part 66 Manual of Standards (MOS).

2.1.2 The Part 66 regulations set out requirements for the application, granting, conditions and appropriate use of aircraft maintenance engineer licences and aircraft type ratings.

2.1.3 In addition, and among other matters, the Part 66 MOS sets out the:

- required theoretical training
- required practical maintenance experience
- examination and assessment standards for grant of an aircraft maintenance engineer licence or an aircraft type rating
- requirements for removal of an exclusion from a licence or aircraft type rating
- privileges associated with each category and subcategory of a Part 66 licence
- lists of aircraft and engines designated by CASA as being type rated aircraft or type rated engines.

2.2 Part 66 licence categories and subcategories

2.2.1 A Part 66 aircraft maintenance engineer licence may be granted in one or more of the following categories:

- Category A
- Category B1
- Category B2
- Category C.

2.2.2 Category A and B1 licences are further subdivided into subcategories relative to combinations of aeroplanes, helicopters, turbine and piston engines. These subcategories are:

- A1 and B1.1 for aeroplanes turbine
- A2 and B1.2 for aeroplanes piston
- A3 and B1.3 for helicopters turbine
- A4 and B1.4 for helicopters piston.

2.2.3 The titles shown against each licence category designator below are provided as a readily understandable indication of the job function:

- Category A: Line maintenance certifying mechanic (as detailed in Appendix II of the Part 145 MOS)
- Category B1: Maintenance certifying engineer - mechanical
- Category B2: Maintenance certifying engineer - avionics
- Category C: Base maintenance certifying engineer.

2.2.4 Individual licence holders are not restricted to a single category or subcategory. Provided that each qualification requirement is satisfied, any combination of categories may be granted.

2.3 Part 66 licence terminology

2.3.1 Under Part 66, specific aircraft systems are referred to and designated differently from the previous licensing system under regulation 31 of the *Civil Aviation Regulations 1988 (CAR).* Under Table 1 of the Part 66 MOS, aircraft systems are identified using a chapter reference of the Air Transport Association of America (ATA) numbering system (the common 'global' referencing standard for commercial aircraft documentation), with each aircraft system further designated by CASA as one of the following:

- mechanical (B1) system
- powerplant (B1) system
- structural (B1) system
- electrical (B1 and B2) system
- avionic (B2) system – (i.e. instrument and radio under previous CAR 31 licence).

Note: Table 1 of the Part 66 MOS which lists the aircraft systems and their designations, is reproduced at Appendix A of this AC.

3 Part 2 — Licence categories and privileges

3.1 Part 66 licence – certification levels

3.1.1 The privileges of a Part 66 licence are found under section 66.A.20 of the Part 66 MOS. The holder of an aircraft engineer licence exercises the privileges of the licence if:

- for a category A, B1 or B2 licence—the holder performs maintenance certifications or issues certificates of release to service under the licence
- for a category C licence—the holder issues certificates of release to service under the licence.

Note: Refer to subregulation 66.120 (3).

3.1.2 Within the Part 66 licensing system, there are two levels of certification of maintenance. They are:

- a maintenance certification
- a certificate of release to service (CRS).

3.1.3 These two levels form the basis of the 'certification privileges' the holder of a Part 66 licence may exercise.

3.1.4 Maintenance certification

3.1.4.1 Maintenance certification of aircraft maintenance may be made by the individual licence holder who carried out or supervised the carrying out of the maintenance and must be made before the issue of a CRS.

3.1.4.2 A maintenance certification may only be performed by the holder of a category A, B1 or B2 licence.

Notes:

1. The category C licence does not include the privilege to perform a maintenance certification.
2. The category A licence does not include the privilege to supervise the work of others for maintenance certification purposes.

3.1.5 Certificate of release to service

3.1.5.1 A CRS is a document issued by a licence holder to release an aircraft back to service after the completion of maintenance. The holder of an appropriate category A, B1 or B2 aircraft maintenance engineer licence may issue a CRS, except following completion of base maintenance on large aircraft in a Part 145 AMO.

Notes:

1. Only the holder of a category C licence with the appropriate aircraft type rating may issue a CRS in a Part 145 AMO following base maintenance.
2. Maintenance certification and CRS privileges of each category of licence are also specified in legislation under section 66.A.20 — Privileges, of the Part 66 MOS.

3.2 Using a Part 66 licence to certify for completion of maintenance under CAR

3.2.1 For Australian aircraft maintained by the holder of a certificate of approval (COA) for aircraft maintenance issued under regulation 30 of CAR; certification of maintenance is carried out by the holder of a Part 66 licence and must be done in a manner that is compliant with the requirements of regulation 42ZE of CAR.

3.2.2 Advisory Circular AC 66-05 v2.0 – 'Using a Part 66 licence to provide certifications for completion of maintenance under the *Civil Aviation Regulations 1988'*, provides useful guidance which describes the way in which the holder of a Part 66 licence is able to certify completion of maintenance within the scope of the licence, and issue a final certification for completion of maintenance for an aircraft maintained by a CAR 30 organisation.

3.3 Category A licence

3.3.1 The category A aircraft maintenance engineer licence permits the holder to perform maintenance certifications and issue certificates of release to service following:

- minor scheduled line maintenance or completion of simple defect rectification tasks as specified in Appendix II of the Part 145 MOS, within the limits of tasks specifically endorsed on the certification authorisation issued to the licence holder by the maintenance organisation.

3.3.2 The certification privileges are restricted to work that the licence holder has personally performed in the maintenance organisation that issued the certification authorisation.

3.3.3 Category A licences are issued with one or more of the subcategories A1, A2, A3 or A4; however, are not endorsed with specific aircraft type ratings.

Note: For the list of subcategories, refer to paragraph 2.2.2 of this AC.

3.3.4 Licence scope

3.3.4.1 The following list of tasks (found in Appendix II of the Part 145 MOS) outlines the scope of authorisations an AMO may issue to category A licensed employees to perform maintenance certifications and issue CRS, following completion of appropriate aircraft type/task training.

> 1 Minor scheduled line maintenance, including a scheduled inspection or check, up to and including a weekly check:
>
> (a) specified in the registered operator's approved aircraft maintenance program; or
>
> (b) if not specified in the registered operator's approved aircraft maintenance program, which CASA considers is equivalent to a weekly check and lists in Part 66 guidance material.

(B) external cargo provisions (for example, external hook, mirrors), excluding the hoist;

(C) quick release external cameras and search lights;

(D) emergency float bags, excluding the bottles;

(E) external doors fitted with quick release attachments;

(F) snow pads, skid wear shoes or slump protection pads; and

(ii) removal, inspection and re-installation of chip detectors, including on inspection "go" or "no go" decision on chip or fuzz or swarf; and

(iii) folding or deploying rotor blades if:

(A) handling instructions permit folding for storage; and

(B) ground support equipment is available; and

(iv) visual inspection or tap test of rotor blades; and

(v) minor repairs, including stop drilling and bonding, to acrylic or Perspex windscreens.

2 Minor maintenance, including a pre-flight, transit or overnight check, ground handling, APU running and minimum equipment list (*MEL*) implementation as allowed by paragraph 3 (p).

3 Minor scheduled line maintenance or simple defect rectification tasks:

(a) replacement of wheel assemblies; and

(b) replacement of wheel brake units; and

(c) replacement of emergency equipment; and

(d) replacement of ovens, boilers and beverage makers; and

(e) replacement of internal and external lights, filaments and flash tubes; and

(f) replacement of windscreen wiper blades; and

(g) replacement of passenger or cabin crew seats, seat belts and harnesses; and

(h) closing of cowlings and refitment of quick access inspection panels; and

(i) replacement of toilet system components, other than gate valves; and

(j) simple repair and replacement of internal compartment doors and placards, other than doors forming part of a pressure structure; and

(k) simple repair and replacement of overhead storage compartment doors and cabin furnishing items; and

(l) replacement of static wicks; and

(m) replacement of aircraft main and APU batteries; and

(n) replacement of in-flight entertainment system components, other than public address; and

(o) routine lubrication and replenishment of system fluids and gases; and

(p) implementation of a registered operator's MEL, including deactivation of subsystems and aircraft components as permitted by the MEL, if the MEL application is one that CASA approves as a simple task; and

(q) replacement of any other component for an aircraft type if the task is one that CASA approves as a simple task; and

(r) For a helicopter only:

(i) removal or installation of the following:

(A) simple medical equipment carried inside a helicopter used for emergency medical services;

3.3.5 Supervision of maintenance

3.3.5.1 A category A licence does not permit the holder to certify for the work of others, only their own maintenance. However, a second person may be present and be directed and instructed by the category A licence holder to assist them in carrying out the maintenance task.

3.3.6 Certification privileges

Maintenance certification

3.3.6.1 A category A licence permits the holder to perform a maintenance certification within the scope of the subcategory of licence held if the person carried out the maintenance. The certification privilege is limited to the category A tasks for the specific aircraft type the licence holder has been trained on (i.e. type and task training) by the maintenance organisation and has been endorsed for on his/her certification authorisation.

3.3.6.2 Type and task training must include practical hands-on training, and theoretical training, as appropriate for each task authorised. Completion of training must be demonstrated to the satisfaction of the Quality Manager of the issuing organisation by an examination or workplace assessment carried out by the organisation.

Certificate of release to service (CRS)

3.3.6.3 A category A licence permits the holder to issue a CRS for completion of maintenance to aircraft covered by the subcategory of licence held if the maintenance was carried out by the person, or the maintenance and its maintenance certification were carried out by another category A licence holder. This CRS privilege is limited to the category A tasks for the aircraft type the licence holder has specifically endorsed on the certification authorisation.

3.3.6.4 The category A licence holder may only issue a CRS when all maintenance certifications for the aircraft have been performed only by category A licence holders. If the holder of a category B1 or B2 licence has issued maintenance certifications for maintenance they have carried out on the aircraft, then the category A licence holder is not permitted to issue the CRS.

3.4 Category B1 licence

3.4.1 Subject to exclusions listed on the licence, the category B1 aircraft maintenance engineer licence permits the holder to perform maintenance certifications and issue CRS following:

- maintenance performed on aircraft structure (airframe), powerplant, mechanical and electrical systems
- **limited** work performed on avionic systems (avionic ATA chapters), including avionic line replaceable units (LRU) replacements and testing that complies with all the **simple test** and ‘troubleshooting’ definitions (as described in section 1.2) to prove their serviceability. (refer to avionic systems at subparagraph 3.4.3.3 below).

3.4.2 Category B1 licences are issued with one or more of the subcategories B1.1, B1.2, B1.3 or B1.4 and can be endorsed with specific aircraft type ratings.

Notes:

1. For the list of subcategories, refer to paragraph 2.2.2 of this AC.
2. Refer to list of aircraft type ratings in Appendix IX of the Part 66 MOS.

3.4.2.1 Where an aircraft system (and ATA chapter reference) in Table 1 of the Part 66 MOS is designated B1, the B1 licence holder has full maintenance privileges within the chapter. However, a B2 licence holder has privileges for maintenance of electrical and instrument aspects of that mechanical system. Similarly, where an aircraft system (and an ATA chapter reference) is designated B2, the B1 licence holder has privileges for any mechanical aspects of the system.

Note: Paragraph 3.4.2.1 refers to licence privileges with the specific detail provided in the Part 66 MOS. When determining licence privileges for a maintenance task, consideration must be given to the following:

– basic knowledge (i.e. subject content and knowledge level) requirements for the licence category/subcategory (ref: Appendix 1 of Part 66 MOS), and

– maintenance task – must be understood and related to the applicable underpinning knowledge requirements of the licence.

3.4.3 Licence scope

3.4.3.1 The category B1 licence holder may certify maintenance of aircraft:

- structure (airframe)
- powerplant systems
- mechanical systems
- electrical systems - (B1 and B2 equally share this system), including:
- electrical subsystems (i.e. electrical parts, appliances and motors)

  or
- instrument subsystems (i.e. transmitters, sensors etc), within mechanical and powerplant systems.

Notes:

1. Refer to the electrical system definition under section 1.2 – Definitions, of this AC for what is included in an electrical system.
2. The maintenance above is limited to the extent of scope for the licence held, i.e. within the limitations of any exclusions endorsed on the licence.

Category A licence maintenance tasks

3.4.3.2 Category B1 includes maintenance covered by the corresponding A subcategory.

Example:

Category B1.1 includes subcategory A1 tasks.

Category B1.2 includes subcategory A2 tasks.

Category B1.3 includes subcategory A3 tasks.

Category B1.4 includes subcategory A4 tasks.

Avionic systems

3.4.3.3 Subject to exclusions listed on the licence, the category B1 licence may include **limited** privilege to certify for work on aircraft avionic systems, provided the serviceability of the system can be established by a **simple test** facility, other on-board test systems/equipment or by simple ramp test equipment that requires no special training.

Note: Special test equipment training is other than that received during licence category training.

3.4.3.4 Defect rectification involving test equipment which requires an element of decision making in its application – other than a simple go/no-go decision – cannot be certified by a B1.

3.4.3.5 Avionic system privileges for the category B1 licence are **limited** to the following tasks:

a. replacement of an avionic LRU – that requires only a **simple test** to prove its serviceability

Note: There is no LRU privilege if the licence is endorsed with the E6 exclusion.

b. Updating the software in an avionic system, provided that:
   i. the system has a discrete 'self-test' facility to confirm success of the updating (e.g. software load part number)
   ii. the serviceability of any other system affected by the updating is also confirmed
   iii. only **simple tests** are necessary to verify the serviceability of the system and any other system affected by the updating.

Note: Updating the software does not extend to the repair, rebuilding and major modification of system software. This remains the responsibility of the B2 LAME.

c. Functional checks of an avionic system that can be conducted as a **simple test**.
d. Troubleshooting of an avionic system that can be conducted as a **simple test**. Troubleshooting must not deviate outside the instructions of the manufacturer's TSM or FIM data.

Notes:

1. For additional guidance on category B1 avionic systems privileges, refer to Appendix A and the Workflow diagram (decision tree) at Appendix C of this AC.
2. Refer to the **simple test** definition under section 1.2 – Definitions, of this AC for what is a simple test with regards to a category B1 licence holder exercising privileges.

Additional category B1 maintenance privileges

3.4.3.6 Despite any exclusions listed on a licence, the holder of a category B1 licence endorsed with a subcategory may certify:

- a daily or manufacturer's equivalent inspection (or EDTO pre-flight inspection)
- a check of the condition and security of attachment, of wiring, plumbing, parts and appliances
- inspections using an NDT Liquid Penetrant Inspection (LPI) method (limited to the visible colour contrast Type II dye penetrant technique — NOT the fluorescent dye penetrant, inspection technique).
- maintenance of electrical and instrument components which form part of a mechanical, powerplant or structural system, limited to:
  - external mechanical adjustment to facilitate correct operation of mechanical, powerplant or structural systems
  - replacement of components connected by electrical plugs, terminal connections (other than soldered connections) or pipelines—but excluding

those functional tests and adjustments that are not simple tests or requiring the use of external specialised test equipment.

Notes: (NDT inspections using the LPI method)

1. NDT inspections using the visible colour contrast LPI method, are not to be used for final inspection of safety critical components, and not to be used before an inspection using fluorescent penetrants.

   Reference:

   a. CASA Airworthiness Bulletin AWB 20-002 *Use of visible (red) dye liquid penetrant with inspection of safety critical components,* and

   b. the American Society for Testing and Materials (ASTM), ASTM E 1417/E1417M-16 – *Standard practice for liquid penetrant testing.*

2. This NDT privilege does not include inspections using the Type I - fluorescent penetrant (visible under ultraviolet light) inspection technique.
3. This NDT privilege is consistent with airframe category and engine category NDT inspection privileges under the previous CAR 31 licensing system.
4. Under Appendix IV of the Part 66 MOS, licence category training for a category B1 licence delivers the competency to carry out LPI inspections using the visible colour contrast dye penetrant technique only (refer to competency unit MEA365).
5. For additional information on what privileges are included as part of a daily, or manufacturer's equivalent inspection, refer to 66.A.20 (a) 4A**.** of the Part 66 MOS.

Schedule 8 of CAR (pilot maintenance)

3.4.3.7 The category B1 licence includes the privilege to certify for maintenance tasks specified in Part 1 of Schedule 8 of CAR (i.e. pilot maintenance) carried out on Class B aircraft.

3.4.3.8 The maintenance must be carried out in accordance with any conditions (if any) prescribed by a legislative instrument issued by CASA.

3.4.3.9 The category B1 licence holder does not require the aircraft type rating to carry out and certify maintenance specified in Part 1 of Schedule 8 even if the Class B aircraft is specified as a type rated aircraft in Appendix IX of the Part 66 MOS.

Notes:

1. Refer to additional information provided in Civil Aviation Advisory Circular – CAAP 42ZC-01 available on CASA website <https://www.casa.gov.au>
2. Refer to Part 1 of Schedule 8, of the *Civil Aviation Regulations 1988* for the list of maintenance on Class B aircraft other than balloons.

Composite structure maintenance

3.4.3.10 Not including an inspection in which specialised test equipment is used, the category B1 licence holder may carry out and certify for:

- general visual inspections (GVI) - (routine and non-routine) of non-type rated aircraft and type-rated aircraft (if type rating held), to all aircraft composite structures, including:
  - fuselage
  - wings
  - wing to body fairings
  - engine cowlings
  - nose cowlings
  - composite flight control surfaces (flaps, ailerons, elevators etc)
  - fixed leading and trailing edge panels

  - access covers/panels
  - cabin floorboards and other composite constructed cabin furnishings etc.
- a limited range of simple and non-structural composite repairs such as external patch, scarf patch, stepped repairs and bolted repairs,
  - but only if the licence holder is appropriately trained, assessed as competent and qualified to do the repair, prior to being authorised as a certifying employee.

Notes:

1. The privilege excludes inspection and certification following maintenance to those aircraft of primarily composite construction or with composite primary structures.
2. The privilege excludes inspection and certification following repairs, modifications or assembly of aircraft composite primary structures.
3. Certification of maintenance to aircraft composite primary structures may only be carried out by a specially qualified person. (refer definition in section 1.2)
4. Section 7A of Civil Aviation Order (CAO 100.5) and AC 66-04 provide additional information relating to carrying out and certifying for maintenance of aircraft composite structures in either a Part 145 AMO or a CAR 30 maintenance organisation, for aircraft of primarily composite construction or with composite primary structures.

Transitional maintenance privileges (VFR aircraft operations only)

3.4.3.11 Despite any exclusions listed on a licence, the holder of a category B1 licence who previously held a CAR 31 licence, or who qualified (during the transitional period June 2011-03 July 2020) for transition of an engine category Group 1 or Group 2 rating, or an airframe category Group 1, Group 2 or Group 19 rating, may perform maintenance certification for:

- all electrical maintenance – on an aircraft approved for VFR operations only and fitted with a single generator
- all instrument system maintenance for aircraft general instruments (excluding RMI, inertial navigation and multi-axis autopilots) – on aircraft approved for VFR operations only
- replacement of removable items of equipment of radio systems – on aircraft approved for VFR operations only
- periodic inspections for aircraft radio systems – on aircraft approved for VFR operations only.

Notes:

1. These privileges only apply provided that the old licence and its ratings applied to the maintenance, or would have applied to the maintenance, if CAR 31 were still in force.
2. A person whose Part 66 licence was endorsed with exclusions at transition, is not considered to be a 'full/unrestricted B1 LAME'. That is, those exclusions do apply and limit the scope of privilege for the respective licence, except for those transitional maintenance privileges mentioned above (and identified in Table 2 of section 66.A.21 of the Part 66 MOS), which are a privilege despite any exclusion listed on the licence.

3.4.4 Supervision of maintenance

3.4.4.1 The holder of a category B1 licence may supervise the work of others for maintenance certification purposes.

3.4.5 Certification privileges

Maintenance certification

3.4.5.1 A category B1 licence permits the holder to perform a maintenance certification within the scope of the subcategory of licence held (including accounting for any exclusion listed on the licence), following maintenance performed on:

- structures (airframe)
- powerplant systems
- mechanical systems
- electrical systems
- category A tasks for the corresponding A subcategory and aircraft type rating(s) held
- avionic systems — (see limitations for avionic privileges outlined above)
- inspections using the NDT Liquid Penetrant Inspection (LPI) method – limited to the visible colour contrast Type II dye penetrant inspection technique only (i.e. NOT the fluorescent dye penetrant inspection technique)
- composite structures — (see limitations for composite structure maintenance outlined above)
- transitional privileges (VFR aircraft operations only).

Certificate of release to service (CRS)

3.4.5.2 A category B1 licence permits the holder to issue a CRS for aircraft covered by the subcategory of licence held, following completion of all maintenance, if the maintenance was not base maintenance carried out on a large aircraft by a Part 145 AMO.

Notes:

1. Performance of maintenance certifications and issue of CRS are only permitted on a particular type-rated aircraft or type-rated engine if the aircraft type rating or engine type rating is endorsed on the licence.
2. Performance of maintenance certifications and issue of CRS are permitted on all aircraft that are not type-rated if the aircraft is covered by the subcategory of licence held.

3.5 Category B2 licence

3.5.1 Subject to exclusions listed on the licence, the category B2 aircraft maintenance engineer licence permits the holder to perform maintenance certifications and issue CRS following:

- maintenance of avionics and electrical systems
- electrical and instrument tasks within powerplant and mechanical systems.

Note: If a fluid system is broken into, certification for associated leak checks must be performed by a B1 LAME.

3.5.2 Category B2 licences can be endorsed with specific aircraft type ratings.

Note: Refer to list of aircraft type ratings in Appendix IX of the Part 66 MOS.

3.5.3 Licence scope

3.5.3.1 The category B2 licence holder may certify maintenance of aircraft:

- avionic and electrical systems

- electrical and instrument subsystem tasks within powerplant and mechanical systems.

3.5.3.2 Where an aircraft system (and ATA chapter reference) in Table 1 of the Part 66 MOS is designated B2, the B2 licence holder has full maintenance privileges within the chapter, however a B1 licence holder has privileges for maintenance of any mechanical aspects of the system. Similarly, where an aircraft system (and an ATA chapter reference) is designated B1, the B1 licence holder has full maintenance privileges within the chapter. However, the B2 licence holder has privileges for electrical and instrument aspects of that mechanical system.

Notes:

1. Refer to the electrical system and subsystem definitions under section 1.2 – Definitions, of this AC.
2. The maintenance above is limited to the extent of scope for the licence held, i.e. within the limitations of any exclusions endorsed on the licence.
3. Paragraph 3.5.3.2 refers to licence privileges with the specific detail provided in the Part 66 MOS. When determining licence privileges for a maintenance task, consideration must be given to the following:

   – basic knowledge (i.e. subject content and knowledge level) requirements for the licence category/subcategory (ref: Appendix 1 of Part 66 MOS), and

   – maintenance task – must be understood and related to the applicable underpinning knowledge requirements of the licence.

Category A licence maintenance tasks

3.5.3.3 The category B2 licence does not automatically include category A licence privileges. However, if a B2 licence holder, licensed on a particular aircraft type, has been trained by the Part 145 AMO or CAR 30 maintenance organisation on category A tasks for that aircraft type, he/she may perform maintenance certification following:

- minor scheduled line maintenance and simple defect rectification within the limits of category A licence tasks specifically endorsed on the certification authorisation issued by the employer.

Note: This certification privilege is restricted to work that the licence holder has personally performed in the maintenance organisation which issued the certification authorisation and is limited to the type ratings for a large aircraft endorsed on the B2 licence.

3.5.3.4 As is the case for the category A licence holder, all category A task training undertaken by a category B2 licence holder must include practical hands-on training, and theoretical training, as appropriate for each task authorised.

Avionic systems

3.5.3.5 Certification of maintenance to the aircraft avionic systems – any level of maintenance including replacement of avionics LRUs, (unless the licence is endorsed with the E6 exclusion).

Note: For additional guidance on category B2 certification privileges, refer to the workflow diagram (decision tree) at Appendix C of this AC.

Additional category B2 maintenance privileges

3.5.3.6 Despite any exclusions listed on a licence, the holder of a category B2 licence may certify:

- a daily or manufacturer's equivalent inspection (or EDTO pre-flight inspection)

- a check of the condition and security of attachment, of wiring, plumbing, parts and appliances.

Note: The category B2 licence includes the privilege to certify for closing of cowlings and removal/installation (screwing/unscrewing) of quick access inspection panels (ref: ATA51 of Table 1 of Part 66 MOS).

Schedule 8 of CAR (pilot maintenance)

3.5.3.7 The category B2 licence includes the privilege to certify for maintenance tasks specified in Part 1 of Schedule 8 of CAR (i.e. pilot maintenance) carried out on Class B aircraft.

3.5.3.8 The maintenance must be carried out in accordance with any conditions (if any) prescribed by a legislative instrument issued by CASA.

3.5.3.9 The category B2 licence holder does not require the aircraft type rating to carry out and certify maintenance specified in Part 1 of Schedule 8 even if the Class B aircraft is specified as a type rated aircraft in Appendix IX of the Part 66 MOS.

Notes:

1. Refer to additional information provided in Civil Aviation Advisory Circular – CAAP 42ZC-01 available on CASA website < Civil Aviation Advisory Publications (CAAP) | Civil Aviation Safety Authority (casa.gov.au) >
2. Refer to Part 1 of Schedule 8, of the *Civil Aviation Regulations 1988* for the list of maintenance on Class B aircraft other than balloons.

3.5.4 Supervision of maintenance

3.5.4.1 The category B2 licence holder may supervise the work of others for maintenance certification purposes.

3.5.5 Certification privileges

Maintenance certification

3.5.5.1 A category B2 licence permits the holder to perform a maintenance certification within the scope of the licence held (including accounting for any exclusion listed on the licence), following category B2 maintenance performed on:

- avionic systems
- electrical systems
- electrical and instrument subsystem tasks within powerplant and mechanical systems
- category A licence tasks — i.e. minor scheduled line maintenance and simple defect rectification within the limits of category A licence tasks specifically endorsed on the certification authorisation issued by the employer.

Note: The category A licence tasks certification privilege is restricted to work that the licence holder has personally performed in the maintenance organisation which issued the certification authorisation and limited to the type ratings already endorsed on the licence.

Certificate of release to service (CRS)

3.5.5.2 A category B2 licence permits the holder to issue a CRS for aircraft covered by the licence, following completion of all maintenance, if the maintenance was not base maintenance carried out on a large aircraft by a Part 145 AMO.

Notes:

1. Performance of maintenance certifications and issue of CRS are only permitted on a particular type-rated aircraft if the aircraft type rating is endorsed on the licence.
2. Performance of maintenance certifications and issue of CRS are permitted on all aircraft that are not type-rated.

3.6 Category C licence

3.6.1 The category C aircraft maintenance engineer licence permits the holder to issue CRS following base maintenance on aircraft carried out by a Part 145 AMO. Category C licences can be endorsed with specific aircraft type ratings.

Note: Refer to list of aircraft type ratings in Appendix IX of the Part 66 MOS.

3.6.2 Licence scope

3.6.2.1 A category C licence permits the holder to issue a CRS following base maintenance on aircraft, for the maintenance conducted by the AMO. The basis for this single certification is that all maintenance carried out or deferred has been certified by appropriate category B1 and B2 personnel, in accordance with applicable continuing airworthiness management organisation's (CAMO) requirements.

3.6.2.2 The principal function of the category C licence holder is to ensure that all required maintenance that has been called up, has been certified by appropriate category B1 and B2 personnel or specialist maintainers and any outstanding or incomplete maintenance has been identified and the operator notified before issue of the CRS.

3.6.3 Certification privileges

Maintenance certification

3.6.3.1 Nil privilege. For base maintenance events, certification of maintenance is the responsibility of category B1 and category B2 licence holders. No authorisation may be granted to the category category C licence holder to perform a maintenance certification following completion of base maintenance.

Certificate of release to service

3.6.3.2 The CRS privilege permits an aircraft to be released back to service (via the issue of a single CRS for the whole aircraft), following completion of all scheduled base maintenance. The basis for this certification is that the maintenance has been carried out by competent maintenance engineers and category A, B1 and B2 personnel have certified for the maintenance under their respective licence category privileges.

3.6.3.3 Only category C personnel who also hold category B1 or B2 qualifications may perform both roles in base maintenance.

Notes:

1. Issue of a CRS by the category C licence holder, is only permitted on a particular type-rated aircraft if the appropriate aircraft type rating is endorsed on the individual's licence.
2. The category C role and issue of a CRS in base maintenance is similar to the co-ordinator of maintenance (CAR 31) and issue of the maintenance release.

3.7 Type rated aircraft vs non-type rated aircraft

3.7.1 Type rated aircraft

3.7.1.1 Type rated aircraft are typically large aircraft including aeroplanes over 5700 kg maximum take-off weight (MTOW) and multi-engine helicopters. If CASA has a reason that type training would improve/assure aviation safety it assigns type ratings to other aircraft (such as particular small aircraft) or specific engines.

Notes:

1. Refer to Appendix IX of the Part 66 MOS for the lists of type rated aircraft and type rated engines.
2. All CASA approved type training provided by approved Part 147 MTOs are documented in Part 2 of Advisory Circular AC 147-02 (as amended from time to time).
3. two examples of aircraft less than 5700kgs that CASA has determined as requiring a type rating are:

   – Pilatus PC-12

   – Embraer Phenom 100.

3.7.2 Non-type rated aircraft

3.7.2.1 Non-type rated aircraft are generally those weighing not more than 5700 kg, or aircraft weighing above 5700 kg, which CASA considers a type rating is not required. Maintenance of these aircraft are covered by category B1 and category B2 aircraft maintenance engineer licences, as long as the maintenance is within the scope of the licence (including any exclusions on the licence), and do not require a specific aircraft type rating on the licence.

3.7.2.2 In addition, for some non-type rated aircraft, a type rating may be required for the gas turbine engine only (e.g. Honeywell TPE 331 engine). In such cases the type rating is endorsed on the Part 66 licence as – small/non-rated aircraft (engine rating).

Example:

A category B1 licence holder with nil airframe exclusions.

The Cessna 441 is a non-type rated aircraft, however its engine (Honeywell TPE 331) is type rated. The licence holder therefore requires a small/non-rated aircraft (TPE 331) type rating endorsement on his/her licence to maintain the engine.

Notes:

1. Refer to Appendix IX of the Part 66 MOS for lists of non-type rated aircraft that require a specific type rated engine. These are listed as a *small/non-rated aircraft (engine rating).*
2. All CASA approved type training provided by approved Part 147 MTOs are documented in Part 2 of Advisory Circular AC 147-02 (as amended from time to time).
3. Two examples of aircraft greater than 5700kgs that CASA has determined as not requiring a type rating are: AT-802 Air Tractor, and Grumman G-73T Mallard.

3.7.3 Licence privileges and type-rated aircraft

3.7.3.1 The holder of a subcategory B1.1, B1.2, B1.3, B1.4 or category B2 or C licence, must only exercise his or her certification privileges on a type rated aircraft or a type rated aircraft engine when the licence is endorsed with the appropriate aircraft type rating or aircraft engine type rating, following completion of relevant theory training and practical experience for that aircraft type or engine type.

3.7.3.2 Permission for the B1 licence holder to provide maintenance certifications for the completion of maintenance for the powerplant of an aircraft with a type rated engine is gained by holding those aircraft or engine type ratings. A B1 licence holder (assuming no E3 – Excluding powerplant systems limits the licence or aircraft type ratings) is permitted to work on the mechanical, electrical and structural systems of those aircraft via the holding of the appropriate licence e.g. sub-category B1.1. Holding engine type ratings is not relevant to B2 and C licence holders.

4 Part 3 — Background—transition from CAR 31 to Part 66

4.1 The change from CAR 31 to Part 66

4.1.1 The move to the Part 66 licensing system on 27 June 2011, replaced the previous licensing system under regulation 31 of CAR (CAR 31) and introduced the A, B1, B2 and C categories and type ratings used by the European Aviation Safety Agency (EASA). With introduction of this EASA based licensing system, Part 66 of CASR also introduced new terminologies, some changes in licence privileges and licence categories. The following information provides an explanation and clarification on some of the differences between the CAR 31 and Part 66 licensing systems and conversion of a CAR 31 licence to a Part 66 licence.

4.2 Comparison of licence privileges — CAR 31 to Part 66

4.2.1 The following table provides a general comparison of CAR 31 licence privileges to Part 66 licence privileges.

Note: Actual privileges depicted on a licence may be subject to exclusions.

Table A — Comparison of licence privileges – CAR 31 to Part 66

CAR 31 licence terminology	Simple aircraft transit maintenance	Airframe	Engine	Instrument or Radio LRU	Electrical or instrument aspects of airframe or engines systems (currently a CAR 31 electrical or instrument category privilege)	Electrical (generation, distribution and lighting)	Instrument	Radio
CASR Part 66 terminology	Category A licence tasks	Aircraft systems designated structural, powerplant or mechanical		Avionic LRU	Electrical or instrument sub-systems of mechanical, powerplant or structural systems	Electrical	Avionics - any level of maintenance	
CASR Part 66 licence category	A	B1			B1 or B2	B1/B2 share equally	B2	

4.3 Licence exclusions

4.3.1 What is an exclusion?

4.3.1.1 An exclusion on an aircraft maintenance engineer licence or aircraft type rating, indicates that a limitation has been applied to the licence or aircraft type rating.

4.3.1.2 Exclusions may be applied to your licence category or to an aircraft type rating endorsed on your licence, or both.

4.3.1.3 An exclusion prohibits the licence holder from certifying for maintenance carried out on the aircraft system identified by the specific exclusion number. (e.g. E41 - excluding oxygen systems would prohibit the licence holder from certifying maintenance carried out to the aircraft's oxygen system).

Notes:

1. On your aircraft engineer licence, the exclusions, limitations and additional privileges that apply to you are printed adjacent to the licence category or applicable aircraft type rating. To find out what they mean, refer to the explanatory list on the last page of your licence and the additional information provided here under section 2.6.
2. For reference, the list of licence exclusions applicable to the Part 66 licensing system is provided at Appendix B of this AC.

4.3.2 How did exclusions come to be?

4.3.2.1 In May-June 2011 (the licence conversion period), all aircraft maintenance engineer licences previously issued under the CAR 31 licensing system were re-issued by CASA as a Part 66 licence. Due to differences between the two licensing systems (i.e. the five category licence system under CAR 31 and the two category licence system under Part 66 of CASR), and CASA's assurance that no existing CAR 31 licence holder would lose any of his/her existing licence privileges, a licence 'exclusions' system was created and was applied to all CAR 31 licences at transition to ensure the privileges of the old and new licences matched.

4.3.3 Explanation of the conversion process from CAR 31 to Part 66

4.3.3.1 Under the CAR 31 licensing system, licences were classified into five separate licence categories. Each of those licence categories (i.e. airframe, engine, electrical, instrument and radio) had their associated aircraft systems further classified into group ratings (previously known as lower groups). As training was completed for a group rating (CASA Basics/SOE), licence privilege was granted for a particular system or subsystem on the aircraft e.g. the airframe category licence had group ratings for air-conditioning systems, pressurisation systems, wooden airframe structures etc and the radio category licence had group ratings for VHF radio systems, HF radio systems etc.

4.3.3.2 As each CAR 31 licence and its group rating endorsements were transitioned to a Part 66 licence, an exclusion may or may not have been applied to the Part 66 licence to ensure the privileges of the old and new licences matched.

4.3.3.3 During that same time (the licence conversion period), a few licence 'inclusions' were introduced to identify certain privileges some CAR 31 licence holders had on their licences and when re-issued as a Part 66 licence, ensured the privileges of the old and new licences matched.

4.3.3.4 The following tables provide some very basic examples of how exclusions were applied to a converted licence during the licence conversion period.

Table B — Basic example 1: licence conversion – adding an E3 exclusion

CAR 31 licence	converted to	Part 66 licence
airframe category licence (groups 1, 5, 6 and 10, or a group 20 airframe)	=	B1 (mechanical) licence endorsed with (at minimum) an E3 exclusion
E3 – excluding powerplant systems		

4.3.3.5 The category B1 licence is a (mechanical) licence that covers maintenance performed on aircraft structural (airframe), powerplant (engines), mechanical and electrical

(generation, distribution and lighting) systems and electrical or instrument subsystems of mechanical, powerplant or structural systems.

In example 1 above, the CAR 31 licence was an airframe category licence only.

- because the licence holder did not have the privilege to certify for engines on their CAR 31 airframe licence (as it was airframe only), the E3 exclusion was applied to their Part 66 B1.1 licence at conversion, to restrict the licence holder from certification of maintenance to powerplants (engines).

Table C — Basic example 2: licence conversion – adding E1, E4 and E5 exclusions

CAR 31 licence	converted to	Part 66 licence
airframe and engine category licence (groups 1, 5, 6 and 10, or a group 20 airframe, and engine groups 1, 3 and 21)	=	B1 (mechanical) licence endorsed with (at minimum) E1, E4 and E5 exclusions
E1 – excluding electrical systems E4 – excluding electrical sub-system of mechanical, powerplant or structural systems E5 – excluding instrument sub-systems of mechanical, powerplant or structural systems		

4.3.3.6 The category B1 licence is a (mechanical) licence that covers maintenance performed on aircraft structural (airframe), powerplant (engines), mechanical and electrical (generation, distribution and lighting) systems and electrical or instrument subsystems of mechanical, powerplant or structural systems.

In example 2 above, the CAR 31 licence was an airframe and engine category licence only because the licence holder did not have the privilege to certify for:

- electrical systems, (as the CAR 31 licence was airframe and engine only), the E1 exclusion was applied to the Part 66 B1 licence at conversion, to restrict the licence holder from certification of maintenance to aircraft electrical systems
- electrical aspects of airframe or engine systems (previously a CAR 31 electrical category privilege) as the CAR 31 licence was airframe and engine only, the E4 exclusion was applied to the Part 66 B1 licence at conversion, to restrict the licence holder from certification of maintenance to aircraft electrical sub-systems
- instrument aspects of airframe or engine systems (previously a CAR 31 instrument category privilege) as the CAR 31 licence was airframe and engine only, the E5 exclusion was applied to the Part 66 B1 licence at conversion, to restrict the licence holder from certification of maintenance to aircraft instrument sub-systems.

4.3.3.7 During the licence transition period, exclusions were also applied to a Part 66 licence if the CAR 31 licence holder did not have other maintenance privileges under their CAR 31 licence for specific aircraft sub-systems such as but not limited to: pressurisation (E16 or E31), radar (E21), air-conditioning (E14 and/or E15), hydraulics systems (E13) etc.

4.3.4 CASA policy — application of exclusions on a licence and/or rating

4.3.4.1 CASA's policy at the time of the conversion period (May/June 2011) was that exclusions that applied to the category or subcategory of licence would also be applied to any aircraft type rating or engine type rating endorsed on the licence.

4.3.4.2 Depending on the CAR 31 licence categories and ratings held at the time of transition from CAR 31 to Part 66, exclusions were applied at both the category and rating levels. When an exclusion was applied at the category level, its effects extended to any of the type ratings granted in the category.

Example:

An exclusion for powerplant (engine) systems (E3) applied to the category B1.1 licence also extended to any aircraft type ratings granted in that category. The licence holder could not certify for maintenance of turbine engines in relation to any aircraft type rating held.

4.3.4.3 The reason behind this policy (and applied to the example above) was:

- if the CAR 31 licence holder had no evidence of having previously completed training (theory and practical) on turbine engines, then he/she never had the privilege to certify for turbine engines under their CAR 31 licence
- that being the case, he/she would also not be granted (at transition) any turbine engine privileges under their Part 66 licence, and so for this example, the E3 (excluding powerplant systems) exclusion was applied to the category B1.1 licence and therefore would have also applied to any aircraft type ratings held under that licence.

4.3.4.4 Under this policy, any exclusion applied to the licence would first need to be removed from the category, then from the applicable rating:

- to remove the powerplant (engine) systems exclusion from the licence category would require completion of turbine engine training (theory and practical) – so gain knowledge and experience of turbine engines at category level,

  and then:
- to remove the powerplant (engine) systems exclusion from any aircraft type rating held on the licence would require completion of turbine engine (theory and practical) on the particular engine type covered by the rating – so gain knowledge and experience for the particular turbine engine type.

4.3.5 Requirements for removal of an exclusion from a category or subcategory of licence

4.3.5.1 To remove an exclusion from a category or subcategory of licence, an individual must satisfy the following theory and practical requirements:

- theory – completion of the Part 66 module exam(s) relevant to the subject/aircraft system of the particular exclusion
- practical – completion of the unit(s) of competency applicable to a particular exclusion, as listed in Appendix VIII of the Part 66 MOS.

Notes:

1. A list of the units of competency (for the practical experience component) taken from the Aeroskills training package required for removal of each exclusion from a category or subcategory of licence can be found at Appendix VIII of the Part 66 Manual of Standards.
2. This is usually completed by a CASA approved Part 147 Maintenance Training Organisation (MTO) via a Recognition of Prior Learning (RPL) process.

4.3.6 Requirement for removal of an exclusion from a rating

4.3.6.1 To remove an exclusion from an aircraft type rating endorsed on the licence, an individual must satisfy the following theory and practical requirements:

- theory – completion of theory training (i.e. exclusion removal training) on the particular aircraft type for the particular aircraft system
- practical – completion of specific practical maintenance experience on the particular aircraft type for the particular aircraft system.

Note: For additional information on CASA's policy for removal of an exclusion from an aircraft type rating, refer to Appendix II of the Part 66 Acceptable Means of Compliance/Guidance Material (AMC/GM) document.

4.3.7 Use of CASA Basics/SOE to remove the exclusion

4.3.7.1 Alternatively, if you already hold an aircraft maintenance engineer licence, you can use CASA Basics and a recognised schedule of experience (SOE) (including aircraft theory type training where applicable) to:

- remove exclusions from a category or subcategory of licence already held
- remove exclusions from an aircraft type rating that is already held on your licence.

Note: This option is only available until 30 June 2021.

4.4 Licence inclusions

4.4.1 What is an inclusion?

4.4.1.1 An inclusion on an aircraft maintenance engineer licence indicates that the licence includes an additional privilege. There are two licence inclusions, they are:

- I-1 including compensation of direct reading magnetic compasses
- I-2 including oxygen systems.

4.4.1.2 An I-1 inclusion was applied to individuals who previously held a CAR 31 airframe or engine category licence at transition, and who also had instrument cross-category privileges.

4.4.1.3 An I-2 inclusion was applied to individuals who previously held a CAR 31 instrument category licence at transition.

Note: The I-3 'including pressurisation control' additional privilege endorsed on some category B2 licences at transition from CAR 31 to Part 66 in June 2011, was repealed from legislation in April 2012. Since that date, pressurisation control systems, is a privilege granted to all category B2 licences.
(Ref: Column 3 – conditions or limitations, of ATA chapter 21, under Table 1 of the Part 66 MOS).

Appendix A

Part 66 — general licensing information

A.1 Aircraft systems, designations and conditions for Category B1 and Category B2 licences

A.1.1 The following table (taken directly from the Part 66 MOS) lists particular aircraft systems identified by their relevant Air Transport Association of America (ATA) chapter reference, with each aircraft system further designated as one of the following systems, with conditions or limitations applied to particular aircraft systems (as stated):

- mechanical (B1) system
- powerplant (B1) system
- structural (B1) system
- electrical (B1/B2) system

  or
- avionic (B2) system.

Note: Where an ATA chapter in Table 1 of the Part 66 MOS is designated B1, the B1 licence holder has full maintenance privileges within the chapter, however a B2 licence holder has privileges for maintenance of electrical and instrument aspects of that mechanical system. Similarly, where an ATA chapter is designated B2, the B1 licence holder has privileges for any mechanical aspects of the system.

Table D — List of aircraft systems, designations and conditions for Category B1 and Category B2 licences

Aircraft system (and ATA chapter reference)	Designation of system	Conditions or limitations
Pressurisation, air-conditioning and equipment cooling systems (ATA21)	Mechanical (B1)	For a Category B2 licence, pressurisation control systems.
Autopilot (ATA22)	Avionic (B2)	For a Category B1 licence — avionic LRU tasks.
Communications (ATA23), including ELT and underwater locating beacon (ATA25-60)	Avionic (B2)	For a Category B1 licence — avionic LRU tasks.
Generator and/or constant speed drive/IDG systems (ATA24)	Electrical (B1/B2) and Powerplant (B1)	
Electrical power supply systems, including a ram air turbine, if electrical (ATA24)	Electrical (B1 and B2)	
Equipment, furnishings and emergency equipment (ATA25)	Mechanical (B1)	Except ELT and underwater locating beacon (ATA 25-60) — see (ATA23).
Fire, smoke, overheat detecting and extinguishing systems (ATA26)	Mechanical (B1)	
Flight control systems (ATA27)	Mechanical (B1)	For a category B1 licence — except system operation - fly-by-wire.
Flight control systems – system operation – fly-by-wire (ATA27)	Avionic (B2)	For a Category B2 licence — limited to the avionic subsystem of the flight control system. For a Category B1 licence — avionic

Aircraft system (and ATA chapter reference)	Designation of system	Conditions or limitations
		LRU tasks.
Fuel systems (ATA28)	Mechanical (B1)	
Hydraulic power systems, including ram air turbine (ATA29)	Mechanical (B1)	
Ice and rain protection systems (ATA30)	Mechanical (B1)	
Ice and rain protection systems (ATA30-20)	Mechanical and Powerplant (B1)	Powerplant — for powerplant cowling anti-icing.
Indicating and recording systems (ATA31)	Avionic (B2)	For a Category B1 licence — avionic LRU tasks.
Landing gear (ATA32)	Mechanical (B1)	
Wheels and brakes (ATA32-40)	Mechanical (B1)	
Lighting (ATA33)	Electrical (B1 and B2)	
Navigation systems: • General • Radio interface • ACARS, SELCAL, INS/IRS • Compass • Flight management system • Doppler systems (ATA34)	Avionic (B2)	For a Category B1 licence — compass swings, if endorsed on the licence. For a Category B1 licence — avionic LRU tasks.
Oxygen system (ATA35)	Mechanical (B1)	For a Category B2 licence, if endorsed on the licence.
Pneumatic system (ATA36)	Mechanical (B1)	
Vacuum (ATA37)	Mechanical (B1)	
Waste water (ATA38)	Mechanical (B1)	
Integrated modular avionics (ATA42)	Avionic (B2)	For a Category B1 licence — avionic LRU tasks.
Cabin systems (ATA44)	Avionic (B2)	For a Category B1 licence — avionic LRU tasks.
Central maintenance system (ATA45)	Avionic (B2)	For a Category B1 licence — avionic LRU tasks.
Information systems ATIMS Network server (ATA46)	Avionic (B2)	For a Category B1 licence — avionic LRU tasks.
Nitrogen generation system or inert gas system (ATA47)	Mechanical (B1)	
APU (ATA49)	Powerplant (B1)	
Cargo and accessory	Mechanical (B1)	

Aircraft system (and ATA chapter reference)	Designation of system	Conditions or limitations
compartments (ATA50)		
Structures — General (ATA51)	Structural (B1)	Structures — general, but excluding wooden structures and fabric surfaces unless: (a) for wooden structures — the holder has obtained the relevant optional units of competency mentioned in section 66.A.25 of the Part 66 MOS; or Note: These optional units of competency are marked W in Appendix IV of the Part 66 MOS. (b) for fabric surfaces — the holder has obtained the relevant optional units of competency mentioned in section 66.A.25 of the Part 66 MOS. Note: These optional units of competency are marked Z in Appendix IV of the Part 66 MOS. Structures — general (c) for a category B2 licence — closing of cowlings and refitment of quick access inspection panels.
Doors (ATA52)	Structural (B1)	
Fuselage (ATA53)	Structural (B1)	
Nacelles and pylons (ATA54)	Structural (B1)	
Stabilisers (ATA55)	Structural (B1)	
Windows (ATA56)	Structural (B1)	
Wings (ATA57)	Structural (B1)	
Propeller — rotor (ATA60)	Mechanical (B1)	
Propeller — propulsion (ATA61)	Powerplant (B1)	For a Category B1 licence, only if the holder has obtained the relevant optional units of competency mentioned in section 66.A.25 of the Part 66 MOS. **Note:** These optional units of competency are marked P in Appendix IV of the Part 66 MOS.
Rotor (ATA62)	Mechanical (B1)	
Rotor drives (ATA63)	Mechanical (B1)	
Tail rotor (ATA64)	Mechanical (B1)	
Tail rotor drive (ATA65)	Mechanical (B1)	
Folding blades and pylon (ATA66)	Mechanical (B1)	

Aircraft system (and ATA chapter reference)	Designation of system	Conditions or limitations
Rotor flight control (ATA67)	Mechanical (B1)	
Powerplant (ATA71)	Powerplant (B1)	
Engine turbine/ turbo-prop and fans (ATA72)	Powerplant (B1)	
Engine-mounted accessories: gear boxes, gears, pumps and attached engine-mounted and driven components (ATA72-60)	Powerplant (B1)	
Engine fuel and control — carburation/injection system (ATA73)	Powerplant (B1)	
Fuel electronic engine control (e.g. FADEC) (ATA73A)	Avionic (B2) and Electrical (B1 and B2)	For Category B1 licence — avionic LRU tasks.
Ignition system (ATA74)	Powerplant (B1)	
Air systems and control (ATA75)	Powerplant (B1)	
Engine control system (ATA76)	Powerplant (B1)	
Engine indicating system (ATA77)	Powerplant (B1) and Avionic (B2)	
Exhaust — thrust reverser (ATA78)	Powerplant (B1)	
Lubrication system (ATA79)	Powerplant (B1)	
Starting system (ATA80)	Powerplant (B1)	
Supercharging system (ATA81)	Powerplant (B1)	
Power augmentation (ATA82)	Powerplant (B1)	
Accessory drives (ATA83)	Powerplant (B1)	

A.2 Additional guidance – avionics systems

A.2.1 Background

A.2.2 The move to the EASA style Part 66 maintenance engineer licensing regulations in June 2011, resulted in the removal of the previous Extensions and Line Maintenance Authorities (LMA's) which existed under the previous CAR 31 licensing system. These had previously enabled appropriately trained mechanical LAMEs some limited scope to certify for electrical, instrument and radio systems in a Line Maintenance environment.

A.2.3 Within the Part 66 regulations adopted, the loss of this facility has been compensated for by granting full B1 LAMEs electrical privileges and limited certification privileges on aircraft avionic systems, provided the serviceability of the system can be established by a **simple test**. The intent of these limited B1 privileges is not to replace the B2 licence.

A.2.4 Replacement of an avionic LRU

A.2.5 An avionic LRU:

- must not require complex removal procedures (typically, an LRU is removed and a replacement installed with minimum or no tools)
- must be replaced without extensive testing, ideally there should be a simple 'self-test' facility and the **simple test** 10 or less actions apply.

A.2.6 An avionic LRU includes wiring harnesses that are prefabricated and fully terminated only. Certification of their replacement is allowed, as long as the level of testing meets the **simple test** criteria.

A.2.7 If an avionic LRU is replaced that interfaces with multiple systems, certification is allowed as long as the serviceability of each associated system is established via the **simple test** criteria.

Note: A B1 licence holder's simple test privilege for establishing avionic system serviceability may be carried out even if an avionic LRU change has not been made.

A.2.8 Updating the software in an avionic system

A.2.9 Software in an avionic system is considered an avionic LRU. The category B1 licence holder may certify for updates carried out to the software in an avionic system within the limits prescribed in paragraph 3.2.1.2.b of this AC.

A.2.10 The process of updating/transferring software data, using data loaders (whether portable or on board), falls under the scope of an avionic LRU replacement, as long as serviceability can be established via the **simple test** criteria.

A.2.11 Software transfer is not to be treated as an LRU replacement if the software installation does not have a discrete test outcome/result or if all the affected systems cannot be verified as serviceable.

A.2.12 Software variations, customisation or modification (usually by means such as an Engineering Authority or Service Bulletin), is not to be treated as an avionic LRU. These require interpretation and application of full avionics system knowledge to assess continued serviceability of all disturbed systems. Certification in these instances must be made by the B2 licence holder.

Note: Updating the software does not extend to the repair, rebuilding and major modification of system software. This remains the responsibility of the B2 LAME.

A.2.13 Functional checks of an avionic system

A.2.14 The category B1 licence holder may certify for a functional check of an avionic system within the limits of the definition of a **simple test**[1].

A.2.15 Avionic system testing that performs a detailed examination of the calibration and accuracy of the avionic system is considered outside the scope of the B1 licence privilege.

A.2.16 Inspections within avionic systems require interpretation and evaluation, they are not go/no-go decisions. They are beyond the scope of the B1 licence privilege and must be certified by a B2 licence holder.

[1] Refer to chapter 1.2 – Definitions, of this AC.

A.2.17 The intent of this limited privilege is to allow a category B1 licence holder to certify for a basic functional check of an avionic system that is conducted using:

- the aircraft's controls or switches

  or
- built-in-test equipment (BITE)

  or
- central maintenance computer (CMC)

  or
- basic external test equipment e.g. such as multi-meters or pressure gauges– (the training for which is normally received during licence category training)
- no more than 10 actions.

A.2.18 The outcome of the functional check must result in a unique go/no-go indication or parameter (e.g. a single value or a value falling within a defined range of values) to confirm serviceability, and there can be no interpretation of the results of any step prescribed within the test procedure. Each step within the functional check must be straight forward and simplistic in nature requiring the B1 licence holder to only have a 'general knowledge' level of understanding (both in the theoretical and practical aspects of the avionic system).

A.2.19 If the steps prescribed within the test procedure go beyond the limitations for what is described as a **simple test** or require greater than a 'general knowledge' level of understanding of the avionic system to successfully carry out the test procedure, then certification for the functional test is no longer the privilege of the category B1 licence and must be certified by a category B2 licence.

Notes:

1. Avionic systems theory and practical (licence category and aircraft type) training requirements for a category B1 licence are not taught to the same knowledge level of understanding as that required for the category B2 licence.
2. Aircraft systems designated in Table 1 of section 66.A.20 of the Part 66 MOS as avionic systems are predominately the domain of the category B2 licence, with very limited privilege granted to the category B1 licence (only for those privileges described above, and all are reliant on the simple test obligation).

A.2.20 Troubleshooting of an avionic system

A.2.21 The category B1 licence holder may only certify for troubleshooting of an avionic system when a specific defect entry point is available. This would include a specific message or fault code that can drive the troubleshooting to a documented Troubleshooting Manual (TSM) of Fault Isolation Manual (FIM) procedure. This troubleshooting procedure must still comply with the **simple test** criteria.

A.2.22 Only wiring checks detailed in documented troubleshooting procedures that stipulate a specific result or finding (such as continuity, 28vdc, 500 ohms between or a range of figures or values) may be certified by a full B1 LAME. If nothing specific is detailed, interpretation is required and a B2 LAME must certify.

A.2.23 Troubleshooting is not to involve repeated replacement of the same LRU in pursuit of the cause of a system fault.

A.2.24 Ongoing avionic defects with a history, once documented troubleshooting procedures have been exhausted, should only be certified by a B2 LAME. The B2 LAME has

received training to the full level 3 system knowledge level, which allows a level of judgement to be used in decision making.

A.3 The intent of the full category B1 licence simple test and LRU replacement privilege

A.3.1 The intent of the simple test privilege is to enable the category B1 licence holder limited certification privileges for maintenance carried out on the following aircraft systems designated under Table 1 of the 66 MOS as an ‘avionic (B2)' system:

- autopilot (ATA22)
- communications (ATA23)
- flight control systems – systems operation – fly-by-wire (ATA27)
- indicating and recording systems (ATA 31)
- navigation systems, (ATA34) including
  - general
  - radio interface
  - ACARS
  - SELCAL, INS/IRS
  - compass
  - flight management systems
  - doppler systems
- integrated modular avionics (ATA42)
- cabin systems (ATA44)
- central maintenance system (ATA45)
- information systems (ATA46)
  - ATIMS
  - Network server
- FADEC system (ATA73A)
- Engine indicating (ATA77).

A.3.2 Certification within the Avionic ATA chapters remains the prime responsibility of the B2 LAME. If the B1 LAME has any doubt over the scope of his/her avionic privilege or does not believe they have the required knowledge or competency required, then certification should be carried out by a B2 LAME.

A.3.3 The **simple test**: If the maintenance data requires interpretation and application of specific avionics knowledge as part of the functional check (beyond following instructions that are a set of steps typically found in e.g. a functional check of a CMC or a BITE check) then the functional check must be certified by a category B2 licence.

A.3.4 The 'no more than 10 actions' rule: In support of the intent of this category B1 limited avionics system privilege, a criteria in the definition of a simple test (ref: section 1.2 – Definitions of this AC.) restricts the category B1 licence holder from certifying for a test of an avionics system that involves more than 10 actions as described in the approved maintenance data. This restriction ensures the category B1 licence holder’s privilege in the avionics systems does not exceed his/her level of knowledge achieved on that system.

A.4 ICAO compliance of the Part 66 licence

A.4.1 The format/design of a Part 66 licence conforms to the specifications for personnel licences set out in *Chapter 5 – Specifications for personnel licensing*, of Annex 1 of the International Civil Aviation Organisation's (ICAO) Convention on International Civil Aviation (*The Chicago Convention*).

A.4.2 Under ICAO Annex 1, Chapter 5, personnel licences issued by an ICAO Member State/country (e.g. Australia) in accordance with the requirements of Annex 1 are required to conform to the following specifications and to ensure that other States (countries) can easily determine the licence privileges and validity of ratings. The following details must appear on the licence:

I) Name of State (country)
II) Title of licence
III) Serial number of the licence, given by the authority issuing the licence
IV) Name of holder in full
IVa) Date of birth
V) Address of holder if desired by the State
VI) Nationality of holder
VII) Signature of holder
VIII) Authority and, where necessary, conditions under which the licence is issued
IX) Certification concerning validity and authorisation for holder to exercise privileges appropriate to licence
X) Signature of officer issuing the licence and the date of such issue
XI) Seal or stamp of authority issuing the licence
XII) Ratings, e.g. category, class, type of aircraft, airframe, aerodrome control etc
XIII) Remarks, i.e. special endorsements relating to limitations and endorsements for privileges, including from 5 March 2008 an endorsement of language proficiency, and other information required in pursuance to Article 39 of the Chicago Convention
XIV) Any other details desired by the State issuing the licence.

A.5 How to read a Part 66 licence

A.5.1 As presented in the following 'sample' Part 66 licence at subsection A.5.7 of Appendix A of this AC, all details provided are displayed on the licence in accordance with the ICAO Annex 1, Chapter 5 specifications, as itemised in I) through XIV) above.

A.5.2 **Page 1** of the licence provides the following information:

- I) the ICAO State (Commonwealth of Australia) that issued the licence
- II) the title of licence
- III) licence number
- IV), IVa), V), VI), VII), VIII) personal identifying details, signature of the licence holder and Authority and conditions under which the licence is issued
- X) signature of the CASA officer who issued the licence and date of issue, and
- XI) the stamp/seal of the issuing authority (CASA).

A.5.3 **Page 2** of the licence provides the following information:

- IX) a statement that confirms the certification privileges the licence holder is authorised to exercise appropriate to the category and subcategory licences listed on the licence, as well as requirements to be met for continuing validity of the licence
- XIII) remarks advising that any additional privileges, limitations or exclusions that apply to the category or subcategory, or rating on the holder's licence, are shown as code references adjacent to each listed category or subcategory, or rating.

Note: Explanations for these codes are further listed in section XIV on the licence.

A.5.4 **Pages 3 and 4**, section XII of the licence, provides the following information:

- the category and subcategory licences granted to the holder of the licence and the exclusions applicable to each category/subcategory
- the aircraft type rating endorsements applicable to and listed under each category/subcategory licence and the exclusions applicable to and listed against each aircraft type rating.

Example 1: section XII – understanding the endorsements applied to the licence

XII Licence categories, subcategories, ratings and endorsements

***Category A1 Licence*: issue date -** *08 Jun 2011*

***Category A2 Licence*: issue date** - *08 Jun 2011*

***Category B1.1 Licence*: issue date** - *08 Jun 2011:*
E1, E4, E5, E9, I-1
Type Ratings:
ATR42-200/300 series (PWC PW 120): E2
Beech 1900 (PWC PT6)
Beech 300 Series (PWC PT6)
Bombardier DHC-8-100/200/300 (PWC PW120): E2
Casa C-212 (Honeywell TPE 331): E2
Dornier 328-100 (PWC PW119): E2
Embraer EMB-120 (PWC PW110)
Embraer ERJ-170/190 (GE CF34)
Fairchild 227 Series (Honeywell TPE331)
Fairchild SA226 (Honeywell TPE331)
Fokker 50/60 Series (PWC PW 125/127): E2
Grumman G73 (PWC PT6)
Jetstream 31/32 (Honeywell TPE 331)
MD-717-200 (RRD BR700-715)
Pilatus PC-12 (PWC PT6)
Shorts SD3 Series30/SD3-60 (PWC PT6)
Small/non rated Aircraft (Honeywell TPE331)
Small/non rated Aircraft (PWC PT6)
***Category B1.2 Licence*: issue date** - *08 Jun 2011:*
E1, E3, E4, E5, E9, E10, I-1

***Category C Licence*: issue date** - *08 Jun 2011*
Type Ratings:
ATR42-200/300 series (PWC PW 120)
Beech 1900 (PWC PT6)

(No further entries on this page)

The E1, E4 and E5 exclusions endorsed on the category B1.1 licence, means the licence holder is excluded from electrical privileges on all aircraft type ratings and non-type ratings.

The I-1 inclusion endorsed on the category B1.1 licence, means the licence holder's privileges includes 'compass swings'.

The E2 exclusion endorsed against each aircraft type rating listed below the category B1.1 licence, means the licence holder is excluded from the mechanical and structural systems (i.e. previous category airframe) of each type rated aircraft.

The small/non-rated aircraft (engine) ratings listed below the category B1.1 licence, means the licence holder holds engine type rating privileges on all non-type rated aircraft fitted with PT6 and TPE331 engines.

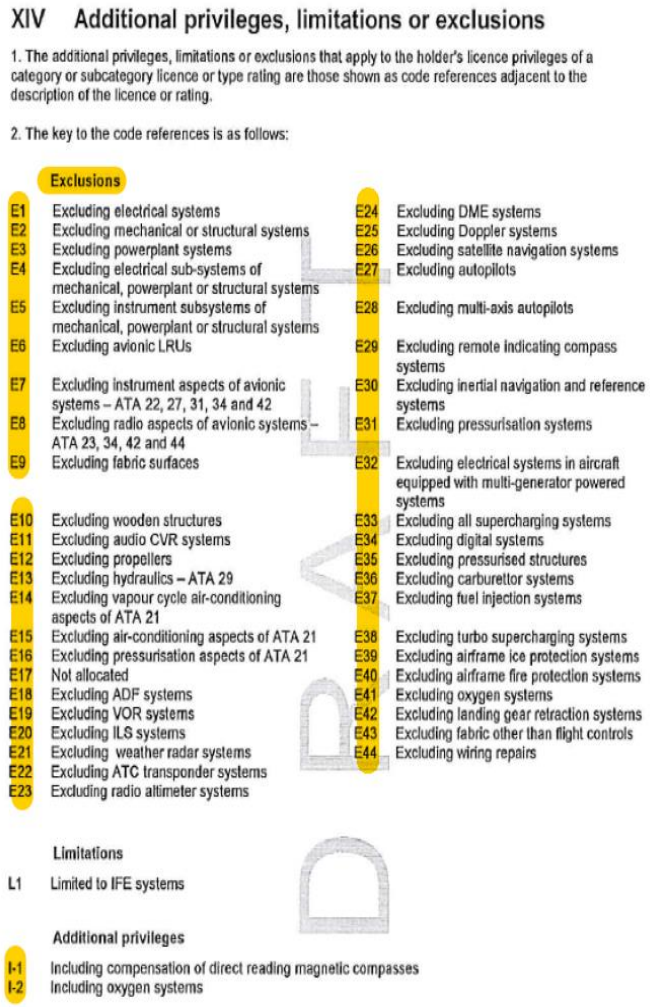
The E3 exclusion endorsed on the category B1.2 licence, means the licence holder is excluded from all powerplant systems (i.e. all piston engines).

The aircraft type ratings listed below the category C licence, means the licence holder can issue a CRS (post maintenance) for those type rated aircraft.

A.5.5 **Page 5,** section XIV of the licence, provides the following information:

- the list of code references for additional privileges, limitations or exclusions that apply to the licence holder.

Example 2: section XIV – understanding the additional privileges and exclusions applied to the licence



XIV Additional privileges, limitations or exclusions

1. The additional privileges, limitations or exclusions that apply to the holder's licence privileges of a category or subcategory licence or type rating are those shown as code references adjacent to the description of the licence or rating.

2. The key to the code references is as follows:

Exclusions

E1	Excluding electrical systems	E24	Excluding DME systems
E2	Excluding mechanical or structural systems	E25	Excluding Doppler systems
E3	Excluding powerplant systems	E26	Excluding satellite navigation systems
E4	Excluding electrical sub-systems of mechanical, powerplant or structural systems	E27	Excluding autopilots
E5	Excluding instrument subsystems of mechanical, powerplant or structural systems	E28	Excluding multi-axis autopilots
E6	Excluding avionic LRUs	E29	Excluding remote indicating compass systems
E7	Excluding instrument aspects of avionic systems – ATA 22, 27, 31, 34 and 42	E30	Excluding inertial navigation and reference systems
E8	Excluding radio aspects of avionic systems – ATA 23, 34, 42 and 44	E31	Excluding pressurisation systems
E9	Excluding fabric surfaces	E32	Excluding electrical systems in aircraft equipped with multi-generator powered systems
E10	Excluding wooden structures	E33	Excluding all supercharging systems
E11	Excluding audio CVR systems	E34	Excluding digital systems
E12	Excluding propellers	E35	Excluding pressurised structures
E13	Excluding hydraulics – ATA 29	E36	Excluding carburettor systems
E14	Excluding vapour cycle air-conditioning aspects of ATA 21	E37	Excluding fuel injection systems
E15	Excluding air-conditioning aspects of ATA 21	E38	Excluding turbo supercharging systems
E16	Excluding pressurisation aspects of ATA 21	E39	Excluding airframe ice protection systems
E17	Not allocated	E40	Excluding airframe fire protection systems
E18	Excluding ADF systems	E41	Excluding oxygen systems
E19	Excluding VOR systems	E42	Excluding landing gear retraction systems
E20	Excluding ILS systems	E43	Excluding fabric other than flight controls
E21	Excluding weather radar systems	E44	Excluding wiring repairs
E22	Excluding ATC transponder systems		
E23	Excluding radio altimeter systems		

Limitations

L1 Limited to IFE systems

Additional privileges

I-1 Including compensation of direct reading magnetic compasses

I-2 Including oxygen systems

Each exclusion applied to the licence category or aircraft type rating is identified by its unique exclusion 'code reference' (e.g. E4, E5 etc), and annotated against the licence category or type rating.

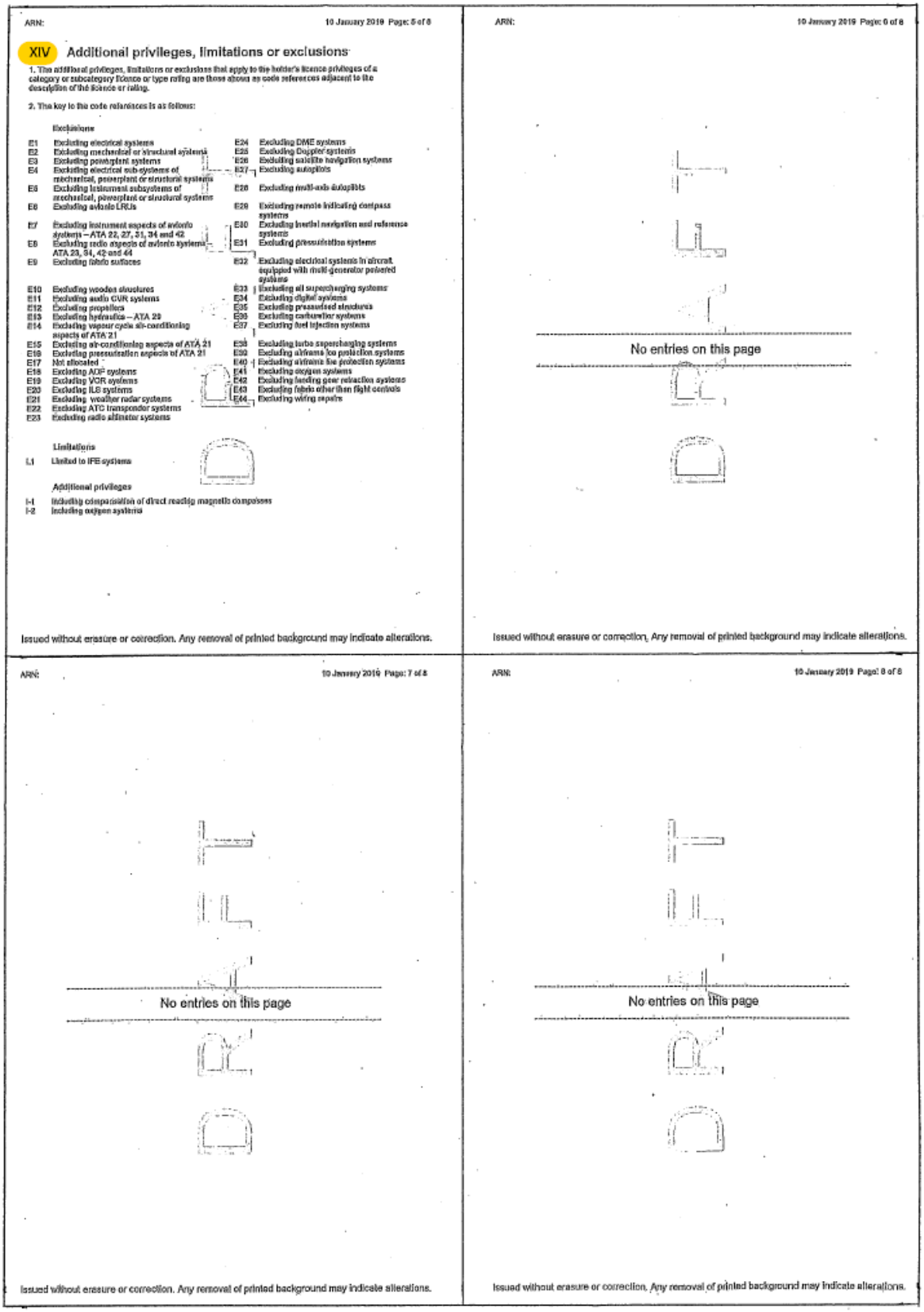
(Ref information under section XII on pages 3 and 4 of the licence).

Note: The same list of exclusions can be found at Appendix B in this AC.

The I-1 or I-2 codes listed under 'additional privileges', means the licence holder has the specific privilege, if annotated directly below the licence category.

An example of this can be seen under section XII in the sample licence provided, where the I-1 inclusion has been annotated directly below the category B1.1 and the B1.2 licence to mean the licence holder's privileges includes 'compass swings'.

A.5.6 **Pages 6, 7 and 8** of the licence are intentionally left blank with no further entries on these pages.



ARN: 10 January 2019 Page: 5 of 8

XIV Additional privileges, limitations or exclusions

1. The additional privileges, limitations or exclusions that apply to the holder's licence privileges of a category or subcategory licence or type rating are those above as code references adjacent to the description of the licence or rating.

2. The key to the code references is as follows:

Exclusions

E1 Excluding electrical systems
E2 Excluding mechanical or structural systems
E3 Excluding powerplant systems
E4 Excluding electrical sub-systems of mechanical, powerplant or structural systems
E5 Excluding instrument subsystems of mechanical, powerplant or structural systems
E6 Excluding avionic LRUs
E7 Excluding instrument aspects of avionic systems – ATA 22, 27, 31, 34 and 42
E8 Excluding radio aspects of avionic systems – ATA 23, 34, 42 and 44
E9 Excluding fabric surfaces
E10 Excluding wooden structures
E11 Excluding audio CVR systems
E12 Excluding propellers
E13 Excluding hydraulics – ATA 29
E14 Excluding vapour cycle air-conditioning aspects of ATA 21
E15 Excluding air-conditioning aspects of ATA 21
E16 Excluding pressurisation aspects of ATA 21
E17 Not allocated
E18 Excluding ADF systems
E19 Excluding VOR systems
E20 Excluding ILS systems
E21 Excluding weather radar systems
E22 Excluding ATC transponder systems
E23 Excluding radio altimeter systems
E24 Excluding DME systems
E25 Excluding Doppler systems
E26 Excluding satellite navigation systems
E27 Excluding autopilots
E28 Excluding multi-axis autopilots
E29 Excluding remote indicating compass systems
E30 Excluding inertial navigation and reference systems
E31 Excluding pressurisation systems
E32 Excluding electrical systems in aircraft equipped with multi-generator powered systems
E33 Excluding oil supercharging systems
E34 Excluding digital systems
E35 Excluding pressurised structures
E36 Excluding carburettor systems
E37 Excluding fuel injection systems
E38 Excluding turbo supercharging systems
E39 Excluding airframe ice protection systems
E40 Excluding airframe fire protection systems
E41 Excluding oxygen systems
E42 Excluding landing gear retraction systems
E43 Excluding fabric other than flight controls
E44 Excluding wiring repairs

Limitations

L1 Limited to IFE systems

Additional privileges

I-1 Including compensation of direct reading magnetic compasses
I-2 Including oxygen systems

Issued without erasure or correction. Any removal of printed background may indicate alterations.

ARN: 10 January 2019 Page: 6 of 8

No entries on this page

Issued without erasure or correction. Any removal of printed background may indicate alterations.

ARN: 10 January 2019 Page: 7 of 8

No entries on this page

Issued without erasure or correction. Any removal of printed background may indicate alterations.

ARN: 10 January 2019 Page: 8 of 8

No entries on this page

Issued without erasure or correction. Any removal of printed background may indicate alterations.

A.6 Sample 1 — a Part 66 licence

ARN: 10 January 2019 Page: 1 of 8

I COMMONWEALTH OF AUSTRALIA
CIVIL AVIATION SAFETY AUTHORITY

II **Aircraft Engineer Licence**

III Licence No:

IV Name:

IVa Date of Birth:

V Address:

VI Nationality: Australian

VII Signature of holder: .....

VIII The issue of this licence conformed with the minimum standards of Annex 1 to the Chicago Convention and is issued in accordance with regulation 66.025 or 66.026 of the Civil Aviation Safety Regulations 1998.

X Delegate of the Civil Aviation Safety Authority 10 January 2019

XI Stamp:

Issued without erasure or correction. Any removal of printed background may indicate alterations.

ARN: 10 January 2019 Page: 2 of 8

IX **Certification and validity**

This licence:

a) authorises the holder to perform maintenance certification and issue certificates of release to service to the extent covered by the privileges of:
   i) the category and subcategory licences listed in this licence;
   ii) the ratings or endorsements endorsed on each licence;
   iii) the additional privileges (if any) associated with the licence or rating; and

b) is subject to the holder's compliance with any applicable conditions, exclusions and limitations on the licence.

Notes:

1. Where the licence or rating records both an exclusion (E) of an aircraft system and modified additional privileges (I), the holder may exercise the limited privileges described in the additional privilege (I).
2. For continuing validity, the licence holder must comply with the recent qualification or experience requirement specified in subregulation 66.120(2) of the *Civil Aviation Safety Regulations 1998*.

XIII **Remarks**

Additional privileges, limitations or exclusions that apply to the holder's licence privileges of a category or subcategory or type rating are shown as code references adjacent to the description of the licence or rating. A list of additional privileges, exclusions and limitations and their descriptions are in section XIV of this licence.

General Conditions applicable to a category or subcategory licence, type ratings, or endorsements:
Nil
General Licence Remarks
Nil

(No further entries on this page)

Issued without erasure or correction. Any removal of printed background may indicate alterations.

ARN: 10 January 2019 Page: 3 of 8

XII **Licence categories, subcategories, ratings and endorsements**

Category A1 Licence: Issue date - *08 Jun 2011*

Category A2 Licence: Issue date - *08 Jun 2011*

Category B1.1 Licence: Issue date - *08 Jun 2011*:
E1, E4, E5, E9, I-1
Type Ratings:
ATR42-200/300 series (PWC PW 120): E2
Beech 1900 (PWC PT6)
Beech 300 Series (PWC PT6)
Bombardier DHC-8-100/200/300 (PWC PW120): E2
Casa C-212 (Honeywell TPE 331): E2
Dornier 328-100 (PWC PW119): E2
Embraer EMB-120 (PWC PW110)
Embraer ERJ-170/190 (GE CF34)
Fairchild 227 Series (Honeywell TPE331)
Fairchild SA226 (Honeywell TPE331)
Fokker 50/60 Series (PWC PW 125/127): E2
Grumman G73 (PWC PT6)
Jetstream 31/32 (Honeywell TPE 331)
MD-717-200 (RRD BR700-715)
Pilatus PC-12 (PWC PT6)
Shorts SD3 Series30/SD3-60 (PWC PT6)
Small/non rated Aircraft (Honeywell TPE331)
Small/non rated Aircraft (PWC PT6)

Category B1.2 Licence: Issue date - *08 Jun 2011*:
E1, E3, E4, E5, E9, E10, I-1

Category C Licence: Issue date - *08 Jun 2011*
Type Ratings:
ATR42-200/300 series (PWC PW 120)
Beech 1900 (PWC PT6)

(No further entries on this page)

Issued without erasure or correction. Any removal of printed background may indicate alterations.

ARN: 10 January 2019 Page: 4 of 8

XII **Licence categories, subcategories, ratings and endorsements (cont'd)**

Beech 300 Series (PWC PT6)
Bombardier DHC-8-100/200/300 (PWC PW120)
Casa C-212 (Honeywell TPE 331)
Dornier 328-100 (PWC PW119)
Embraer EMB-120 (PWC PW110)
Embraer ERJ-170/190 (GE CF34)
Fairchild 227 Series (Honeywell TPE331)
Fairchild SA226 (Honeywell TPE331)
Fokker 50/60 Series (PWC PW 125/127)
Grumman G73 (PWC PT6)
Jetstream 31/32 (Honeywell TPE 331)
MD-717-200 (RRD BR700-715)
Pilatus PC-12 (PWC PT6)
Shorts SD3 Series30/SD3-60 (PWC PT6)

(No further entries on this page)

Issued without erasure or correction. Any removal of printed background may indicate alterations.

Appendix B

Part 66 — licence exclusions

B.1 Transitioning from regulation 31 of CAR (CAR 31) to Part 66 – exclusions

B.1.1 Due to the difference between the two licensing systems (i.e. the five category licence system under CAR 31 and the two category licence system under Part 66), and CASA's assurance that no existing CAR 31 licence holder would lose any of his/her existing licence privileges, a licence 'exclusions' system was created and applied to all CAR 31 licences at transition so that the privileges of the old and new licences matched.

B.1.2 Under the CAR 31 licence system, licence privileges were defined and endorsed on the licence as 'group ratings'. Each licence category (i.e. airframe, engine, electrical, instrument and radio) was divided into group ratings which, as training was completed for a group rating, gave licence privilege for a particular system or subsystem on the aircraft e.g. the airframe licence category had group ratings for air-conditioning systems, pressurisation systems, wooden airframe structures etc and the radio category licence had group ratings for VHF radio systems, HF radio systems etc.

B.1.3 As each CAR 31 licence and its group rating endorsements were transitioned over to a Part 66 licence, an exclusion may or may not have been applied to the Part 66 licence to ensure licence privilege remained the same.

B.1.4 At the same time (the licence transitional period), a few licence 'inclusions' were also used for certain privileges some CAR 31 licence holders had on their licence and when re-issued as a Part 66 licence, ensured a person's licence privileges remained the same.

B.1.5 The following table shows the various licence category/group and type ratings under the CAR 31 licensing system and illustrates the licence categories/ratings that resulted on conversion to a Part 66 licence, and the exclusion that was applied on the licence if a particular CAR 31 category/rating was not held at the time of conversion.

B.1.5.1 The Table compares the terminology previously used under the CAR to the Part 66 terminology:

- the first column of the Table shows the CAR 31 category/group and type ratings held
- the second column shows the Part 66 category/subcategory/type ratings that would be applied at the time of conversion
- the third column shows the exclusions that would be applied to the Part 66 licence if the particular CAR 31 category/group and type ratings were not held.

Table E: Regulation 31 of CAR (CAR 31) to Part 66—licence transition table

CAR 31 category/group & type rating held	CASA licence conversions result	Exclusion on Part 66 licence if CAR 31 category/ group/type rating not held	E#
Electrical category and type rating	Subcategory B1.x, category B2 and type rating	Excluding electrical systems	E1
Airframe category and type rating	Subcategory B1.x and type rating	Excluding mechanical or structural	E2
Engine category and engine type rating	Subcategory B1.x and type rating	Excluding powerplant systems	E3
Electrical category and type rating	Subcategory B1.x and type rating	Excluding electrical sub-system of mechanical, powerplant or structural systems	E4
Instruments category rating	Subcategory B1.x	Excluding instrument sub-system of mechanical, powerplant or structural systems.	E5
CAR 31 cross category privilege for engine/airframe; or CAR 31 licence with radio or instruments categories	Subcategory B1.x, category B2, type rating	Excluding avionic LRUs	E6
CAR 31 licence with instruments category rating	category B2, type rating	Excluding instrument aspect of avionics systems - ATA 22, 27, 31 and 34	E7
CAR 31 licence with radio category rating	category B2, type rating	Excluding radio aspect of avionics systems - ATA 23, 34 and 44	E8
Airframe group 4	Subcategory B1.2	Excluding fabric surfaces	E9
Airframe group 3	Subcategory B1.2	Excluding wooden structures	E10
Radio group 2 or radio group 20	Subcategory B1.x or category B2	Excluding audio CVR systems	E11
Engine group 1 or holds Airframe group 20 aircraft with propellers	Subcategory B1.1 or B1.2	Excluding propellers	E12
Airframe group 5, 19 or 20	Subcategory B1.x	Excluding hydraulics - ATA 29	E13
Airframe group 6 or airframe group 20 fitted with air-conditioning systems	Subcategory B1.x	Excluding vapour cycle air-conditioning aspects of ATA 21	E14
Airframe group 6 or airframe group 20 type rating for aircraft fitted with air-conditioning	Subcategory B1.x	Excluding air-conditioning aspects of ATA 21	E15
Airframe group 10 or	Subcategory B1.x	Excluding pressurisation	E16

CAR 31 category/group & type rating held	CASA licence conversions result	Exclusion on Part 66 licence if CAR 31 category/ group/type rating not held	E#
airframe group 20 fitted with pressurisation control		aspects of ATA 21	
Radio group 3 or radio group 20	Category B2	Excluding ADF systems	E18
Radio group 4 or radio group 20	Category B2	Excluding VOR systems	E19
Radio group 5 or radio group 20	Category B2	Excluding ILS systems	E20
Radio group 6 or radio group 20	Category B2	Excluding weather radar systems	E21
Radio group 7 or radio group 20	Category B2	Excluding ATC transponder systems	E22
Radio group 9 or radio group 20	Category B2	Excluding radio altimeter systems	E23
Radio group 10 or radio group 20	Category B2	Excluding DME systems	E24
Radio group 11 or radio group 20 (where applicable)	Category B2	Excluding Doppler systems	E25
Radio group 12 or radio group 20	Category B2	Excluding satellite navigation systems	E26
Instruments (group 3, 5 or 7) or relevant instrument group 20	Category B2	Excluding autopilots	E27
Instruments (group 5 or 7) or relevant instrument group 20	Category B2	Excluding multi-axis autopilots	E28
Instruments group 8 or instrument group 20	Category B2	Excluding remote indicating compass systems	E29
Instruments group 9 or relevant instrument group 20	Category B2	Excluding inertial navigation and reference systems	E30
Instruments group 10 or relevant instrument group 20	Category B2	Excluding pressurisation systems	E31
Electrical group 2 or electrical group 20	Category B2	Excluding electrical systems in aircraft equipped with multi-generator power systems	E32
Engine group 3 or piston engine group 21	Subcategory B1.2 or B1.4	Excluding all supercharging systems	E33
CAR 31 licence with a digital limitation	Subcategory B1.x, category B2	Excluding digital systems	E34

CAR 31 category/group & type rating held	CASA licence conversions result	Exclusion on Part 66 licence if CAR 31 category/ group/type rating not held	E#
Airframe group 1	Subcategory B1.x	Excluding pressurised structures	E35
Engine group 1	Subcategory B1.x	Excluding carburettor systems	E36
Engine group 1	Subcategory B1.x	Excluding fuel injection systems	E37
Engine group 1	Subcategory B1.x	Excluding turbo supercharging systems	E38
Airframe group 1	Subcategory B1.x	Excluding airframe ice protection systems	E39
Airframe group 1	Subcategory B1.x	Excluding airframe fire protection systems	E40
Instrument or airframe group 1	Subcategory B1.x, category B2	Excluding oxygen systems	E41
Airframe group 1	Subcategory B1.x	Excluding landing gear retraction systems	E42
Airframe group 4	Subcategory B1.x	Excluding fabric other than flight controls	E43
Electrical group 1 or 2	Subcategory B1.x	Excluding wiring repairs	E44

Appendix C

Part 66 — B1 and B2 certification flowcharts

C.1 Can I certify for this task?

C.1.1 The following flowchart is a simplified guide to finding and understanding a broad range of Part 66 licence privileges and is not intended as a complete solution.

C.1.2 Refer to the relevant Part 66 regulations, Manual of Standards (MOS) and supporting documentation when reviewing certification privilege applicability for a maintenance task.

Notes:

1. In keeping this flowchart simple, category A and category C licence privileges are intentionally not covered (Part 145 internal training will cover this requirement).
2. Should you require additional explanation or assistance with understanding this flowchart or Part 66 privileges, contact your local Aviation Safety Advisor, their mobile and email contacts are listed on the CASA website <https://www.casa.gov.au/education/aviation-safety-advisors-asa>

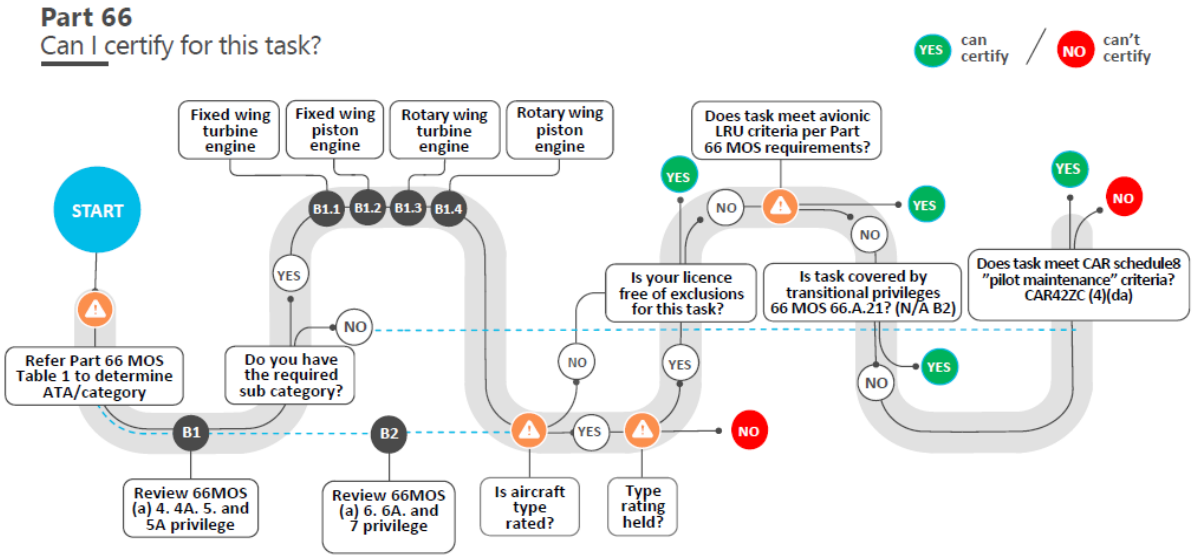


Figure 1: Category B1/B2 licence - certification flowchart

C.2 Category B1 licence – avionic LRU flowchart (decision tree)

C.2.1 The following workflow diagram illustrates a category B1 licence holder's certification privilege for maintenance to aircraft avionics LRUs. The diagram presents the licence holder with some common questions and decisions, to determine the depth of the category B1 LAME's certification privilege for avionic LRU tasks and where certification is required by the B2 licence holder.

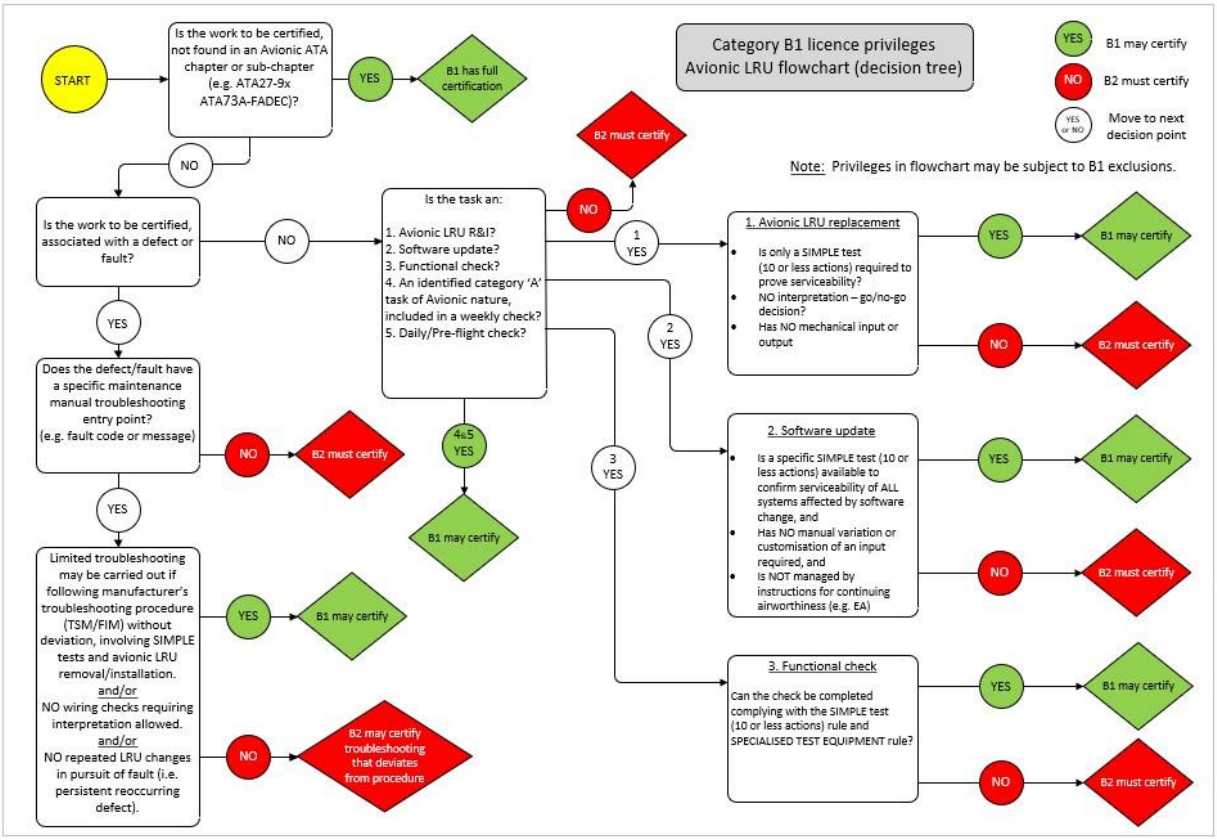


Figure 2: Category B1 licence - avionic LRU flowchart

C.3 Category B2 licence – certification flowchart (decision tree)

C.3.1 The following workflow diagram illustrates a category B2 licence holder's certification privilege for electrical and avionics maintenance tasks and system faults within the aircraft's avionics, electrical and mechanical/powerplant systems. The diagram presents the licence holder with some common questions and decisions, to assist in determining the extent of the B2 LAME's certification privilege within those aircraft systems.

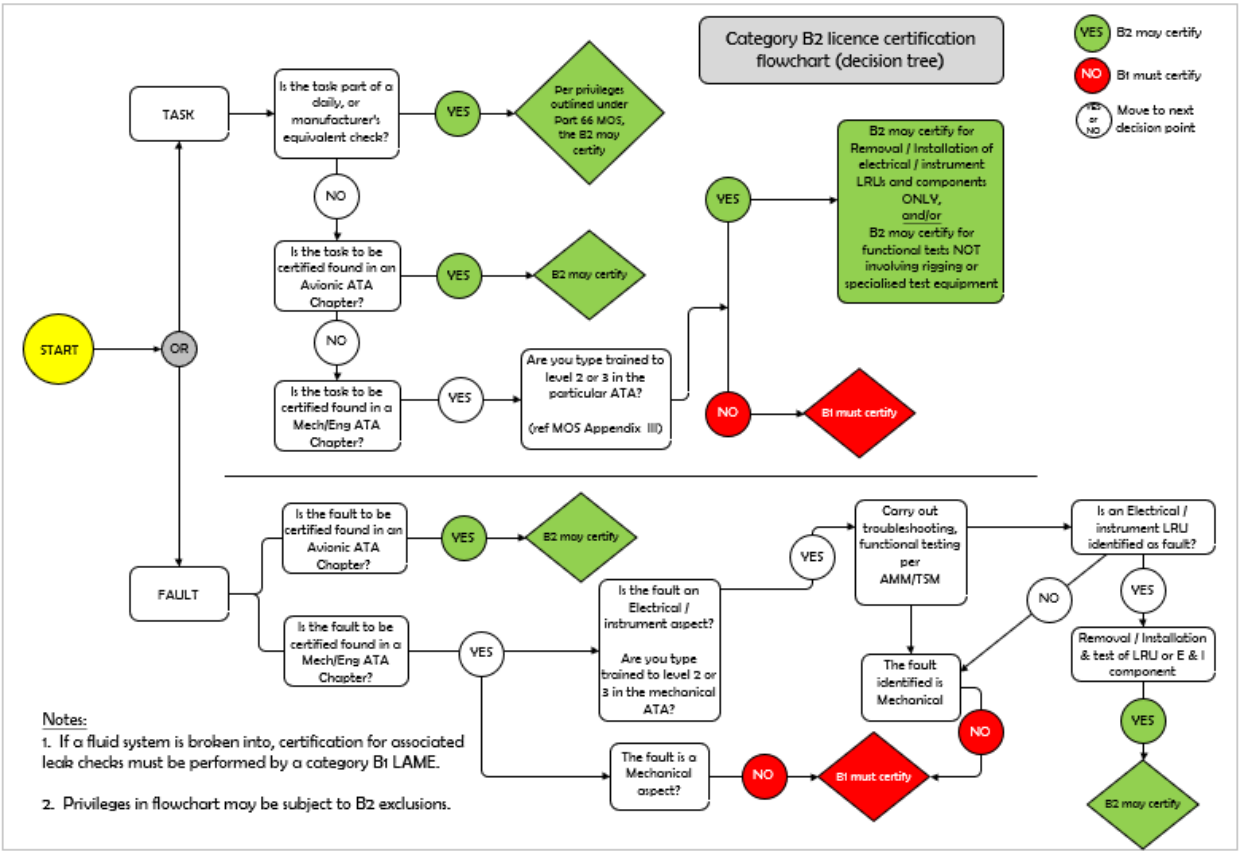


Figure 3: Category B2 licence - certification flowchart