



**DRAFT**

# Advisory Circular

**AC 66-5(0)**

**SEPTEMBER 2012**

## USING A PART 66 LICENCE TO PROVIDE CERTIFICATIONS FOR COMPLETION OF MAINTENANCE UNDER THE CIVIL AVIATION REGULATIONS 1988

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### 1. REFERENCES

- Part 66 of CASR 1998 and its Manual of Standards (MOS).
- Part 4 of CAR 1988 – Airworthiness requirements.

### 2. PURPOSE

The Part 66 Licence may be utilised to meet maintenance certification airworthiness obligations set by Part 42 of the CASR 1998 (for aircraft to which Part 42 applies) or the obligations set under Part 4 of the CAR 1988.

Subpart 42.H of the CASR 1998 *Maintenance certification and certificate of release to service*, provides the detail of the requirements and the Part 42 Acceptable Means of Compliance/Guidance Material (AMC/GM) document contains the detailed explanation of that maintenance certification system.

For aircraft to which the airworthiness obligations remain under Part 4 of the CAR 1988, this Advisory Circular (AC) provides information and guidance on the requirement for the certification of the completion of maintenance. The advice describes the preferred method of complying with regulation 42ZE of the CAR 1988.

*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.*

*Where an AC is referred to in a 'Note' below the regulation, the AC remains as guidance material.*

*ACs should always be read in conjunction with the referenced regulations.*

*This AC has been approved for release by the Executive Manager Standards Division.*

### 3. STATUS OF THIS AC

**3.1** This is the first AC to be issued on this subject. The certification of completion of maintenance information previously published in CAAP 42ZE-2 is now published in this AC.

### 4. ACRONYMS

|             |  |
|-------------|--|
| <b>AC</b>   | Advisory Circular                      |
| <b>AD</b>   | Airworthiness Directive                |
| <b>AME</b>  | Aircraft Maintenance Engineer          |
| <b>AMO</b>  | Approved Maintenance Organisation      |
| <b>CASR</b> | Civil Aviation Safety Regulations 1998 |
| <b>CAR</b>  | Civil Aviation Regulations 1988        |
| <b>CRS</b>  | Certificate of Release to Service      |
| <b>EDTO</b> | Extended Diversion Time Operations     |
| <b>MEL</b>  | Minimum Equipment List                 |
| <b>MOS</b>  | Manual of Standards                    |
| <b>NDT</b>  | Non Destructive Testing                |
| <b>VFR</b>  | Visual Flight Rules                    |

### 5. DEFINITIONS

**Licensed Aircraft Maintenance Engineer (LAME)** means an individual who holds an aircraft engineer licence that is in force. Aircraft engineer licences are issued under regulation 66.025 of the CASR 1998.

**Final Certification for completion of maintenance.** The final certification for completion of maintenance is a term used and explained with Schedule 6 of CAR 1988 – *CASA system of certification for the completion of maintenance*. The term is used generically within this AC and can be read to mean any equivalent final certification made within an approved system of certification under regulation 42ZF of CAR 1988.

**CAR30 aircraft maintenance organisation (AMO).** The holder of a regulation 30 of the CAR 1988 Certificate of Approval (COA) for aircraft maintenance.

### 6. BACKGROUND

**6.1** This AC provides guidance on the scope of each Part 66 of CASR 1998 licence and covers certification matters relevant to the airworthiness obligations set under Part 4 of the CAR 1988. It describes the way in which certification for completion of maintenance can be provided for regulation 42ZE of the CAR 1988 purposes.

**6.2** The AC also provides guidance in regard to licences/ratings required by the various individuals who certify for the completion of maintenance.

**6.3** Under the CARs there were various references to the categories of the previous regulation 31 of the CAR 1988 licence system – electrical, instrument, radio, airframe and engine. The table below compares the terminology previously used under the CAR 1988 to the Part 66 of the CASR 1998 terminology. The Part 66 categories are provided in the first row with the second row detailing the privilege associated with the category. The privileges of the old licence scheme (under regulation 31 of the CAR 1988) are described in the third row of the table below.

**Table 1 – Terminology Comparison Part 66 of the CASR 1998 to Regulation 31 of the CAR 1988**

| CASR 66 licence type  | Category A   | Category B1  |        | B1 or B2                                  | B1/B2 share equally   | Category B2  |                                     |
|---|--|--|--------|---|---|--|-------------------------------------|
| <b>CASR 66 maintenance description/terminology</b>              | Category A Tasks   | Aircraft systems designated Structural, Powerplant or Mechanical |        | Avionic Line Replaceable Unit             | Electrical or Instrument sub-systems of mechanical, powerplant or structural systems  | Electrical   | Avionics - any level of maintenance |
| <b>CAR 31 licence category/category maintenance description</b> | Aircraft pre-flight, transit, overnight checks minor scheduled line maintenance  | Airframe   | Engine | Instrument or Radio Line Replaceable Unit | Electrical or Instrument aspect of airframe or engines systems (an electrical or instrument category privilege under CAR31) | Electrical (generation, distribution and lighting) | Instrument<br>Radio                 |
| <b>CAR31 lower group ratings</b>                                | The regulation 31 of the CAR 1988 lower group ratings were converted to the relevant B1 subcategories B1.1, B1.2, B1.3 and B1.4 and to the B2 category. Conversion of the regulation 31 of the CAR 1988 licences and endorsed categories and lower group ratings resulted in differences which were managed by the use of exclusions (licence limitations). Exclusions limited the privileges of the Part 66 licence to match the privileges of the regulation 31 licence and its endorsed categories and lower group ratings. |  |        |   |   |  |                                     |

## 7. PRIVILEGES OF CATEGORY A LICENCES

**7.1** Category A licences are issued with one or more of the subcategories A1, A2, A3, A4. The holder of a subcategory A1, A2, A3 or A4 licence who has been type and task trained and then authorised by the CAR30 AMO (see CASA Instrument 180/11); may perform certification for completion of the maintenance and final certification for the maintenance, following completion of specific and limited maintenance activities mentioned in category A task list. Category A licences are not endorsed with specific aircraft type ratings.

**7.2** Category A licence holders may not supervise the work of others for maintenance certification purposes. A second person could be present during the maintenance task and simply assisting the category A licence holder but the assistant would be unable to provide any maintenance actions i.e. tasks that needed to be observed/supervised to see that they were carried out correctly.

**7.3** Category A licence holders may only issue a final certification for completion of maintenance when all of the maintenance certifications for the maintenance have been performed only by category A licence holders. If a B1 or B2 has issued maintenance certifications for maintenance they have carried out on the aircraft then the category A licence holder is not permitted to issue a final certification for maintenance.

## **8. PRIVILEGES OF CATEGORY B1 LICENCES**

**8.1** Category B1 licences are issued with one or more of the subcategories B1.1, B1.2, B1.3, B1.4. The holder of a subcategory B1.1, B1.2, B1.3, or B1.4 licence may perform maintenance certification for maintenance work within the scope of the licence and may also issue a final certification for maintenance for the aircraft following completion of all maintenance certifications. Each of the B1 subcategories cover aircraft structure, powerplant, mechanical and electrical systems including replacement of avionic line replaceable units whose correct functioning and serviceability can be demonstrated by use of an operational check, built-in test equipment, or the aircraft's central maintenance system. These licence holders may also undertake any work covered by a subcategory A1, A2, A3 or A4 included on the licence. The licence holder may supervise others for maintenance certification purposes; and if the maintenance is for a type-rated aircraft, they must hold the appropriate aircraft type rating.

## **9. PRIVILEGES OF CATEGORY B2 LICENCES**

**9.1** The holder of a category B2 licence may perform maintenance certification for completion of maintenance activities within the scope of the licence and issue final certifications for maintenance following completion of all maintenance certifications. The scope of the B2 licence includes avionic, electrical systems and the instrument and electrical subsystems of mechanical, powerplant and structural systems. The licence holder may supervise others for maintenance certification purposes and requires a rating for type-rated aircraft.

**9.2** The category A line maintenance, specified in Appendix II of the Part 145 MOS is within the scope of the B2 licence. This certification privilege is restricted to work that the licence holder has personally performed in the maintenance organisation which issued the related certification authorisation and is limited to the type ratings for a large aircraft endorsed in the B2 licence. The holder of a category B2 aircraft maintenance licence may only exercise the certification privileges after they have received the relevant category A aircraft task training; and have obtained 6 months of documented practical experience covering the scope of the authorisation that is to be issued.

**9.3** The relevant category A aircraft task training must include practical hands on training, and theoretical training, as appropriate for each task authorised. Satisfactory completion of training must be demonstrated by an examination or by workplace assessment. Task training and the examination or assessment must be carried out by the maintenance organisation issuing the certifying staff authorisation.

## **10. EXCLUSIONS**

**10.1** CASA applies '*exclusions*' to the Part 66 licence in order to match the privileges of the old and the new licences. Exclusions can also be applied for those aircraft system privileges that are optional in gaining a licence eg propellers, wood structures and fabric surfaces. An exclusion for a system means the licence holder does not have maintenance certification privileges for that system eg excluding propellers means you may not certify for maintenance on a propeller system.

**10.2** Licence scope (Table 1 of the Part 66 MOS) and many of the aircraft system exclusions are described in terms of the Air Transport Association Chapter (ATA) numbering eg E7 is: Excluding Instrument aspects of avionic systems – ATA 22, 27, 31 and 34. Exclusions may be applied to the licence or aircraft type ratings and if applied at the licence level will apply to every aircraft rating endorsed on the licence. Table 1 of the Part 66 MOS shows that ATA 22, 27, 31 and 34 are autopilot, flight control systems, indicating and recoding systems and navigation systems.

**10.3** Transitional privileges have been granted to those LAME who qualified under regulation 31 of the CAR 1988. The transitional privileges can be seen at the base of Table 1 of the Part 66 MOS and override any exclusions that limit the licence or aircraft type ratings.

**10.4** An explanation of the exclusions that may be applied to a licence and aircraft type ratings can be seen at Annex A. The explanation/comparison is in terms of the previous regulation 31 of the CAR 1988 system.

## **11. PRIVILEGES OF CATEGORY C LICENCES**

**11.1** Category C licences are not relevant to meeting the obligations set under Part 4 of the CAR 1988. Category C licences are only for large (type rated) aircraft for base maintenance purposes in a Part 145 AMO for aircraft to which Part 42 of the CASR 1998 applies.

## **12. TYPE-RATED AIRCRAFT**

**12.1** Aircraft that require the aircraft engineer licence holder to have a type rating are listed in the Part 66 AC 66-2 *List of Aircraft Type Ratings for CASR Part 66 Licences*. Type-rated aircraft include large aircraft – aeroplanes over 5,700 kg MTOW, multi-engine helicopters and aircraft (including, where appropriate, a particular engine type) that CASA has designated as requiring a type rating.

**12.2** CASA designates type ratings for small aircraft or for specific engines, if CASA considers that type training would enhance safety, taking into account issues such as complexity, new technology, ATSB recommendations or other safety issues.

**12.3** Aeroplanes below 5,700kg are generally covered by category B1 and category B2 licences within the scope of the licence, unless CASA has type rated the aircraft.

**12.4** The definition of Aircraft *Type* in Part 66 of CASR 1998 is:

- 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.

**12.5** Aircraft type examples for paragraph (a) include the Airbus A310 (GE CF6) and Boeing 747-400 (RR RB211). Examples for paragraph (b) include Non-rated aircraft (PWC PT6) and Non-rated aircraft (Honeywell TPE331). Examples for paragraph (c) include Small aircraft (PWC PT6) and Small aircraft (Honeywell TPE331).

**12.6** Permission for the B1 licence holder to provide maintenance certifications for the completion of maintenance for the *powerplant* of aircraft types (b) and (c) above is gained by holding those aircraft 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 ratings for the aircraft types (b) and (c) is not relevant to B2 and C licence holders.

**12.7** Due to the differences in the way in which aircraft were type rated in the two regulatory systems some aircraft previously covered by lower group ratings in a category now require a type rating. The list of aircraft which have been type rated can be seen in [AC 66-2 List of Aircraft Type Ratings for CASR Part 66 Licences](#).

### 13. THE CAR 1988 CERTIFICATION AND MAINTENANCE RELEASE SYSTEMS

**13.1** Regulation 43 and Schedule 6 of the CARs 1988 describes a number of forms of certifications used to control maintenance and aircraft release from maintenance:

- **Certification for completion of maintenance.** The way in which a person who has carried out maintenance certifies that the maintenance is complete.
- **CAR 42G Certification.** A certification for completion of maintenance that is to be made after an inspection has been carried out on a flight control system following maintenance. Regulation 42G and Schedule 6 of the CAR 1988 require 2 certifications for completion of maintenance, one by the person who performed the maintenance and one by the person performing the duplicate inspection.
- **Stage of maintenance.** A certification to be made for the completion of a maintenance task or stage.
- **Co-ordination.** A certification to be made when more than one person or more than one licence category was involved in a maintenance event.
- **Final Certification.** A certification that must be made after all maintenance has been completed and all other certifications including co-ordination have been made.
- **Maintenance Release.** The issue and cancellation of maintenance releases is controlled under regulation 43 of the CAR 1988 and via two CASA appointment instruments 147 & 148/2011. The instruments detail the body corporates and individuals permitted to provide maintenance releases. A maintenance release may be issued if:
  - all maintenance in respect of the aircraft required to be carried out has been certified;
  - maintenance carried out has not adversely affected, to such an extent as to affect the safety of the aircraft, the flight characteristics of the aircraft or the operating characteristics of any aircraft component, or of any system of aircraft components, installed in the aircraft; and
  - the aircraft is free of damage and defects (that are not permissible unserviceabilities).

**13.2** Unless an approved alternative system of certification specifying different co-ordination procedures is in use, where multiple certifications are necessary for the completion of maintenance, whether an individual task, a series of tasks in a licence category or a multiple of licence categories, a further final certification for the completion and co-ordination of that maintenance is to be made by a person who has certified for part of that maintenance.

**13.3** The person certifying for the completion and co-ordination of maintenance is to also ensure that where any maintenance performed has invalidated a certification previously made, all necessary maintenance has been carried out and re-certified.

**13.4** A person certifying for completion of maintenance within an aircraft engineer licence category may accept the certification made by other aircraft engineer licence holders for subtasks within that category provided such certifications are made on a maintenance document which identifies the maintenance to which it relates and, where the maintenance was an inspection, the certification contains details of any damage or defect found and rectifications made as a result of that inspection.

#### **14. CERTIFICATION REQUIREMENTS OF REGULATION 42ZE**

**14.1** This AC guidance relates to compliance with the system of certification described within Schedule 6 of the CAR 1988. If using an alternative system, that alternative requires approval under regulation 42ZG of the CAR 1988. The completion of all maintenance for aircraft to which regulation 42 of the CASR 1998 does not apply (non RPT) is certified in accordance with the directions of subregulation 42ZE (1) and Schedule 5 of the CAR 1988, by a LAME that has performed or supervised the maintenance being certified.

**14.2** Part 66 of the CASR 1998 permits the licence holder to provide aircraft and aeronautical maintenance services under the CAR 1988 (regulation 42ZC) or CASR 1998 (Division 42.D.2 of the CASR 1998). The transitional consequential and savings provisions of the CASR 1998 allow for the gradual changeover of regular public transport operators from sourcing maintenance services from CAR30 AMO to sourcing that maintenance from only CASR approved Part 145 AMO.

**14.3** When carrying out maintenance in a CAR30 AMO or if carrying out maintenance independently (as determined by paragraph 42ZC (4) (b) and Schedule 7 of the CAR 1988) the LAME can use their Part 66 Licence to certify for the completion of maintenance. They can do this in accordance with the system of certification of completion of maintenance and may also provide maintenance releases. Certifying for completion of maintenance and the issue of maintenance releases is bounded by the licence categories and aircraft type ratings endorsed on the licence.

**14.4** Except where otherwise approved or directed by CASA, a certification for the completion of maintenance will be made by:

- the holder of a valid appropriate aircraft engineer licence employed by a CAR 30 COA;
- the holder of a valid appropriate aircraft engineer licence carrying out maintenance other than the maintenance listed in Schedule 7 of the CAR 1988 on a class B aircraft [independent LAME];
- the holder of a valid appropriate airworthiness or welding authority (maintenance, welding or NDT) under regulations 33B and 33C of the CAR 1988;
- a pilot (paragraph 42ZC (3) (c) of CAR 1988 [as per approved system of maintenance] or paragraph 42ZC (4) (d) [Schedule 8 of the CAR 1988]; and

- a person authorised by the holder of the COA under paragraph 42ZC (4) (b) of the CAR 1988 to certify for completion of maintenance, to the extent of that authorisation.

## 15. OTHER CERTIFICATION MATTERS AND CONSIDERATIONS

**15.1 Assessment Flights.** If the maintainer considers an assessment flight is necessary; following the certification of any maintenance that may have an adverse effect on the flight or operating characteristics of the aircraft; then notification procedures need to be in place for the aircraft operator.

**15.2 Defects.** A person is not to certify a defect as acceptable within the provisions of the system of maintenance or the MEL for an aircraft unless:

- the defect has no adverse effect on the aircraft, other than as allowed by the system of maintenance or the MEL; and
- the maintenance procedures required by the system of maintenance or the MEL have been satisfied.

**15.3 NDT Certifications.** A certification, within a licence category, for completion of an inspection involving the use of a non destructive testing (NDT) method is to be made by the holder of a valid appropriate aircraft engineer licence ensuring:

- the NDT method has been performed and certified to have been completed to approved maintenance data by:
  - the holder of a valid appropriate NDT authority; or
  - the holder of a valid appropriate AME licence, limited to liquid penetrant inspections utilising aerosol packed materials; and
- that any defects indicated are assessed for further maintenance and recorded as appropriate.

**15.4** Where a certification is to be made for the completion of an NDT inspection and the procedure to be observed is not specified, a procedure approved for the purpose by CASA or an authorised person will be observed for the inspection.

**15.5 Welding.** A certification, within a licence category, for the completion of a repair or modification of an aircraft or an aircraft component involving manual welding, including braze welding, must be made by the holder of a valid appropriate aircraft engineer licence ensuring that the welding has been performed and certified, to have been completed to approved data, by the holder of a valid appropriate welding authority issued by CASA.

**15.6 Certification of Australian aircraft outside of Australian Territory.** In accordance with regulation 42ZN, the Certificate of Registration holder of the aircraft is responsible for ensuring that all maintenance performed on the aircraft outside of Australian Territory is certified in accordance with the system for certification of the maintenance organisation performing the maintenance or; alternatively, in accordance with Schedule 6 of the CAR's by:

- the pilot-in-command, for maintenance they have been authorised to perform;
- the holder of a valid appropriate Australian aircraft engineer licence;
- the holder of a valid appropriate Australian maintenance or welding authority;
- the holder of a valid appropriate aircraft maintenance licence issued by the appropriate authority in the Contracting State in which the maintenance is being performed; or



- an employee appropriately authorised by an organisation to perform maintenance on the aircraft, engine or system type as approved by the appropriate authority in the Contracting State in which the maintenance is being performed; and that the maintenance has been performed in accordance with the Certificate of Registration holder's System of Maintenance.

**15.7** The Certificate of Registration holder or the pilot-in-command is responsible for ensuring that certification for the completion of maintenance has been correctly made in the appropriate log book, maintenance release or alternative document prior to flight.

**15.8 Release of an IFR capable aircraft for VFR operations only.** Under the previous CAR31 licencing system it was understood by industry that it was permissible for airframe or engine category licence holder to carry out and certify for all maintenance – irrespective of maintenance category or task – as long as the aircraft was released from maintenance only for VFR operations.

**15.9** That permission has been retained using the transitional privileges section of Table 1 of the Part 66 MOS – Aircraft systems, designations and conditions for category B1 and B2 licences.

**15.10 Inspection After Maintenance on EDTO Approved Aircraft.** Special guidelines and requirements apply to aircraft approved for EDTO flights. To maximise safety margins, maintenance tasks on multiple identical systems should not be performed by the same individual - refer to Subparagraph 9 (2) (c) of CAO 82.0. Independent inspections are not a mandatory requirement of the CAO but wherever it is not possible to avoid a person performing multiple identical maintenance tasks on an aircraft, an equivalent level of safety assurance may be achieved by the use of independent inspections by one or more appropriately qualified individuals.

## **16. CONTENTS OF CERTIFICATIONS**

**16.1** This section specifies the general requirements for the content of certifications in the appropriate log book or alternative document following the completion of maintenance. If an alternative approved system of certification is in use then consult that system for the content of certifications which can be expected to be similar to the details listed below.

**16.2** Certifications require a description of the maintenance performed and need to include, as appropriate, the following details:

- the date the certification was made;
- the registration mark of the aircraft to which it applies;
- the total time-in-service of the aircraft or component at which the maintenance was completed;
- the signature and licence or authority number, whether issued by the CASA or COA holder under CAR 42ZC, of the person making the certification;
- where the above person is, or is employed by, the holder of an appropriate COA or other appropriate person covering the maintenance, the certification will include:
  - the name of the organisation performing the maintenance; and
  - the certificate or licence number of that organisation;
- where the maintenance is, or includes, a repair or modification:
  - the current approved maintenance data used;
  - any exemption or variation granted against a requirement; and

- if applicable, a record of any weight and balance changes;
- the results obtained where the maintenance is, or includes, an inspection that specifies limits and the damage or defect is within those limits; and where the maintenance is, or includes, an inspection using an NDT method, the:
  - NDT method used;
  - approved procedure used; and
  - results obtained.

**16.3** Where the maintenance performed includes the fitting of a replacement or repaired component, the following additional details are required to be on record, as appropriate:

- part name;
- model;
- part number;
- serial number;
- AD compliance;
- Authorised Release Certificate Approval Tag number and details;
- where the component is subject to an overhaul life, the:
  - total time-in-service;
  - total cycles-in-service;
  - time-since-new; or
  - time-since-overhaul;
- where the component is subject to a retirement life, the total time in-service or cycles of the component; and for an engine, the test performance figures.

**16.4** Where a component is replaced with one of a different AD status, a certification will need to be made to reflect that change in status.

**16.5** Where damage or a defect is found when complying with an AD, a certification that such damage or defect is not major, will only be made in those cases where the AD specifies limits, and the damage or defect is within those limits.

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Executive Manager  
Standards Division  
September 2012

## APPENDIX A

**EXPLANATION/COMPARISON OF REGULATION 31 OF THE CAR 1988 SYSTEM  
TO PART 66 OF THE CASR 1998 EXCLUSIONS/LIMITATIONS**

| <b>CAR31 category/group &amp; type rating held</b>  | <b>CASA licence conversions result</b>        | <b>Exclusion on Part 66 licence if CAR31 category/group/ type rating not held</b> | <b>E#</b> |
|---|---|---|-----------|
| 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 airframe group 20 fitted with pressurisation control                                   | Subcategory B1.x                              | Excluding pressurisation aspects of ATA 21  | E16       |
| Radio group 3 or radio group 20   | Category B2                                   | Excluding ADF systems   | E18       |

| <b>CAR31 category/group &amp; type rating held</b>            | <b>CASA licence conversions result</b> | <b>Exclusion on Part 66 licence if CAR31 category/group/ type rating not held</b>    | <b>E#</b> |
|---|--|--|-----------|
| 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 supercharging  | E33       |
| CAR 31 licence with a digital limitation                      | Subcategory B1.x, category B2          | Excluding digital systems  | E34       |
| 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       |

| <b>CAR31 category/group &amp; type rating held</b> | <b>CASA licence conversions result</b> | <b>Exclusion on Part 66 licence if CAR31 category/group/type rating not held</b> | <b>E#</b> |
|--|--|--|-----------|
| 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       |

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