

# **Advisory Circular**

# AIRCRAFT TYPES ACCEPTABLE FOR ENDORSEMENT ON A SAR-66 AIRCRAFT MAINTENANCE LICENCE

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#### **GENERAL**

Pursuant to paragraph 88B of the Air Navigation Order, the Director-General of the Civil Aviation Authority of Singapore (DGCA) may, from time to time, issue advisory circulars (ACs) on any aspect of safety in civil aviation. This AC contains information about standards, practices and procedures acceptable to CAAS. The revision number of the AC is indicated in parenthesis in the suffix of the AC number.

## **PURPOSE**

This AC provides the list of aircraft type and group ratings that may be endorsed on a SAR-66 aircraft maintenance licence.

### **APPLICABILITY**

This AC is applicable to persons seeking an endorsement of an aircraft type or group rating in a SAR-66 aircraft maintenance licence (AML).

#### **RELATED REGULATIONS**

This AC relates specifically to SAR 66.45.

## **CANCELLATION**

This AC supersedes AC 66-5(2) issued on 1 April 2013. This revision 3 updates the list of aircraft types and group ratings which may be endorsed in a SAR-66 Aircraft Maintenance Licence (AML).

## **EFFECTIVE DATE**

This AC is effective from 24 February 2021.

#### 1. INTRODUCTION

SAR 66.45 (b) states that '...the holder of a category B1, B2 or C aircraft maintenance licence shall only exercise certification privileges on a specific aircraft type when the aircraft maintenance licence is endorsed with the appropriate aircraft type rating.'

### 2. AIRCRAFT TYPE/GROUP RATINGS

Appendix 1 of this AC provides a list of individual aircraft types and group ratings which may be endorsed in a SAR-66 aircraft maintenance licence. The following self-explanatory information is also appended in the headers of the listing of aircraft in the Appendix.

- (a) Information on whether the licence holder is required to hold the appropriate <u>aircraft</u> type rating or an <u>aircraft group rating</u> (full group or manufacturer group) to be able to exercise his or her licence privileges on that aircraft type; and
- (b) Information on whether the applicant is required to <u>attend and pass an aircraft type</u> <u>training course</u> or <u>to pass an aircraft type examination only</u>, in order to qualify for a rating.

## 3. RATINGS FOR AIRCRAFT TYPES NOT ON SINGAPORE REGISTER

CAAS normally endorses only aircraft types that are in the Singapore register on a SAR-66 AML. However, CAAS may endorse a type rating for an aircraft type not in the Singapore register if the employer of the licence holder, being a SAR-145 approved maintenance organisation, has the approval for the rating in the SAR-145 exposition manual to maintain that aircraft type, or is in the process of obtaining such an approval rating, or is permitted to issue certificate of release (CRS) for the maintenance works on the aircraft type under a Technical/Working Arrangement on aviation maintenance between CAAS and a foreign State

## 4. RIGHT TO NOT ACCEPT APPLICATION

CAAS reserves the right to not accept any application for type rating as it deems fit.

#### APPENDIX 1: AIRCRAFT TYPE AND GROUP RATINGS

The following lists show the individual type ratings and group ratings, which may be eligible for endorsement on SAR-66 licences.

 For aircraft other than large aircraft and not classified as complex, full group ratings or manufacturer group ratings may be endorsed on a SAR-66 Categories B1 and C licence.

## Full Group Ratings (aeroplanes):

- Group aeroplane (Excluding Engine)
- Group aeroplane
- Group aeroplane multiple piston engines composite structure (Excluding Engine)
- Group aeroplane multiple piston engines composite structure
- Group aeroplane multiple piston engines metal structure (Excluding Engine)
- Group aeroplane multiple piston engines metal structure
- Group aeroplane single piston engine composite structure (Excluding Engine)
- Group aeroplane single piston engine composite structure
- Group aeroplane single piston engine metal structure (Excluding Engine)
- Group aeroplane single piston engine metal structure
- Group aeroplane single piston engine wooden structure (Excluding Engine)
- Group aeroplane single piston engine wooden structure
- Group aeroplane single turbine engine (Excluding Engine)
- Group aeroplane single turbine engine

Note: No full group ratings will be granted for a Category B1 licence for multiple turbine engine aeroplanes, where only manufacturer group ratings apply.

### Full Group Ratings (helicopters):

- Group helicopter single piston engine (Excluding Engine)
- Group helicopter single piston engine
- Group helicopter single turbine engine (Excluding Engine)
- Group helicopter single turbine engine

### Manufacturer group ratings:

- Cessna aeroplane multiple engines metal structure (Excluding Engine)
- Cessna aeroplane multiple engines metal structure
- Cessna aeroplane single engine metal structure (Excluding Engine)
- Cessna aeroplane single engine metal structure
- Diamond Aircraft aeroplane single piston engine composite structure (Excluding Engine)
- Diamond Aircraft aeroplane single piston engine composite structure
- Piper aeroplane multiple piston engines metal structure (Excluding Engine)
- Piper aeroplane multiple piston engines metal structure
- Piper aeroplane single piston engine metal structure (Excluding Engine)
- Piper aeroplane single piston engine metal structure
- Socata aeroplane single piston engine metal structure (Excluding Engine)
- Socata aeroplane single piston engine metal structure

## For Categories B2 and C, the following group ratings may be endorsed:

## Full Group Ratings:

- Group aeroplane
- Group helicopter
- 2. Aeroplanes with a maximum take-off mass of more than 5,700 kg, where only individual aircraft type ratings may be endorsed (Licence holder to attend and pass an aircraft type training course)
  - Airbus A300B4 (Excluding Engine)
  - Airbus A300B4 (GE CF6)
  - Airbus A310-200 (Excluding Engine)
  - Airbus A310-200 (PW JT9D)
  - Airbus A310-300 (Excluding Engine)
  - Airbus A310-300 (PW 4000)
  - Airbus A318/A319/A320/A321 (CFM56)
  - Airbus A319/A320/A321 (Excluding Engine)
  - Airbus A319/A320/A321 (IAE PW1100G)
  - Airbus A319/A320/A321 (CFM LEAP-1A)
  - Airbus A319/A320/A321 (IAE V2500)
  - Airbus A330 (Excluding Engine)
  - Airbus A330 (GE CF6)
  - Airbus A330 (PW 4000)
  - Airbus A330 (RR Trent 700)
  - Airbus A340-300 (Excluding Engine)
  - Airbus A340-300 (CFM56)
  - Airbus A340-500 (Excluding Engine)
  - Airbus A340-500 (RR Trent 500)
  - Airbus A350 (Excluding Engine)
  - Airbus A350 (RR Trent XWB)
  - Airbus A380 (Excluding Engine)
  - Airbus A380 (RR Trent 900)
  - Boeing B707 (Excluding Engine)
  - Boeing B707 (PW JT3D)
  - Boeing B727 (Excluding Engine)
  - Boeing B727 (PW JT8D)
  - Boeing B737-100/200 (Excluding Engine)
  - Boeing B737-100/200 (PW JT8D)
  - Boeing B737-300/400/500 (Excluding Engine)
  - Boeing B737-300/400/500 (CFM56)
  - Boeing B737-600/700/800/900 (Excluding Engine)
  - Boeing B737-600/700/800/900 (CFM56)
  - Boeing B737-7/8/9 (Excluding Engine)
  - Boeing B737-7/8/9 (CFM LEAP-1B)
  - Boeing B747-200/300 (Excluding Engine)
  - Boeing B747-200/300 (GE CF6)
  - Boeing B747-200/300 (PW JT9D)

- Boeing B747-200/300 (RR RB211)
- Boeing B747-400 (Excluding Engine)
- Boeing B747-400 (GE CF6)
- Boeing B747-400 (PW 4000)
- Boeing B747-400 (RR RB211)
- Boeing B757-200/300 (Excluding Engine)
- Boeing B757-200/300 (PW 2000)
- Boeing B757-200/300 (RR RB211)
- Boeing B767-200/300 (Excluding Engine)
- Boeing B767-200/300 (GE CF6)
- Boeing B767-200/300 (PW 4000)
- Boeing B767-200/300 (PW JT9D)
- Boeing B767-200/300 (RR RB211)
- Boeing B777-200/300 (Excluding Engine)
- Boeing B777-200/300 (GE 90)
- Boeing B777-200/300 (PW 4000)
- Boeing B777-200/300 (RR Trent 800)
- Boeing B787-8/9/10 (Excluding Engine)
- Boeing B787-8/9/10 (GE GEnx)
- Boeing B787-8/9/10 (RR Trent 1000)
- Bombardier DHC-8-100/200/300 (Excluding Engine)
- Bombardier DHC-8-100/200/300 (PWC PW120)
- Cessna 525C (Excluding Engine)
- Cessna 525C (Williams FJ44)
- Cessna 560 XL/XLS (Excluding Engine)
- Cessna 560 XL/XLS (PWC PW545)
- Cessna 680 (Excluding Engine)
- Cessna 680 (PWC PW306)
- De Havilland Comet 4 (RR Avon)
- Douglas Dakota C47 (PW R1830)
- Embraer EMB 135/145 (Excluding Engine)
- Embraer EMB 135/145 (RR Corp AE 3007A)
- Embraer EMB 505 (Excluding Engine)
- Embraer EMB 505 (PWC 535)
- Embraer ERJ 190 Series (Excluding Engine)
- Embraer ERJ 190 Series (GE CF34)
- Fokker F27 (Excluding Engine)
- Fokker F27 (RRD Dart)
- Fokker F70 (Excluding Engine)
- Fokker F70 (RRD Tay)
- Gulfstream G150 (Honeywell TFE731)
- Gulfstream G-IV Series (Excluding Engine)
- Gulfstream G-IV Series (RRD Tay)
- Gulfstream GIV-X Series (Excluding Engine)
- Gulfstream GIV-X Series (RRD Tay)
- Gulfstream GV basic model (Excluding Engine)
- Gulfstream GV basic model (RRD BR710)
- Gulfstream GVI (Excluding Engine)
- Gulfstream GVI (RRD BR725)

- Gulfstream GV-SP Series (Excluding Engine)
- Gulfstream GV-SP Series (RRD BR710)
- Learjet 31 (Excluding Engine)
- Learjet 31 (Honeywell TFE731)
- Learjet 35 (Excluding Engine)
- Learjet 35 (Honeywell TFE731)
- Learjet 45 (Excluding Engine)
- Learjet 45 (Honeywell TFE731)
- Learjet 60 (Excluding Engine)
- Learjet 60 (PWC PW305)
- McD DC-10 (Excluding Engine)
- McD DC-10 (GE CF6)
- McD MD-11 (Excluding Engine)
- McD MD-11 (GE CF6)
- McD MD-11 (PW 4000)
- 3. Aeroplanes with a maximum take-off mass of 5,700 kg and below, where only individual aircraft type ratings may be endorsed (Licence holder to attend and pass an aircraft type training course)

[nil]

4. Aeroplanes with multiple turbine engines (AMTE), with a maximum take-off mass of 5,700 kg and below, that may be eligible for a manufacturer group rating (Licence holder must pass an aircraft type examination)

Note: No full group ratings will be granted for multiple turbine engine aeroplanes.

- Skyvan SC-7 Series 3 (Excluding Engine)
- Skyvan SC-7 Series 3 (Garrett TPE 331)
- 5. Aeroplanes single turbine engine (ASTE), that may be eligible for a group rating (Licence holder must pass an aircraft type examination)
  - Cessna 208 Series (Excluding Engine)
  - Cessna 208 Series (PWC PT6)
- 6. Aeroplane multiple piston engines metal structure (AMPE-MS), that may be eligible for a group rating

(Licence holder must pass an aircraft type examination)

- Britten Norman BN2A Trislander (Excluding Engine)
- Britten Norman BN2A Trislander (Lycoming)
- Cessna 310/320 Series (Excluding Engine)
- Cessna 310/320 Series (Continental)
- Piper PA 23 (Excluding Engine)
- Piper PA 23 (Lycoming)
- Piper PA 34 Series (Excluding Engine)
- Piper PA 34 Series (Continental)
- Piper PA 34 Series (Lycoming)

7. Aeroplane single piston engine – metal structure (ASPE-MS), that may be eligible for a group rating

(Licence holder must pass an aircraft type examination)

- Cessna 150 Series (Excluding Engine)
- Cessna 150 Series (Continental)
- Cessna 150 Series (Lycoming)
- Cessna 152 Series (Excluding Engine)
- Cessna 152 Series (Continental)
- Cessna 152 Series (Lycoming)
- Cessna 172 Series (Excluding Engine)
- Cessna 172 Series (Continental)
- Cessna 172 Series (Lycoming)
- PAC CT/4E (Excluding Engine)
- PAC CT/4E (Lycoming)
- Piper PA 28 Series (Excluding Engine)
- Piper PA 28 Series (Lycoming)
- Piper PA 38 Series (Excluding Engine)
- Piper PA 38 Series (Lycoming)
- Socata TB Series (Excluding Engine)
- Socata TB Series (Lycoming)
- 8. Aeroplane multiple piston engine wooden structure (AMPE-WS), that may be eligible for a group rating

(Licence holder must pass an aircraft type examination)

[nil]

9. Aeroplane single piston engine – wooden structure (ASPE-WS), that may be eligible for a group rating

(Licence holder must pass an aircraft type examination)

[nil]

10. Aeroplane multiple piston engines – composite structure (AMPE-CS), that may be eligible for a group rating

(Licence holder must pass an aircraft type examination)

[nil]

11. Aeroplane single piston engine – composite structure (ASPE-CS), that may be eligible for a group rating

(Licence holder must pass an aircraft type examination)

- Diamond DA 40 (Excluding Engine)
- Diamond DA 40 (Lycoming)

# 12. Multi-engine helicopters (MEH), where only individual aircraft type ratings may be endorsed

(Licence holder to attend and pass an aircraft type training course)

- Bell 212 (Excluding Engine)
- Bell 212 (PWC PT6)
- Eurocopter AS 355 (Excluding Engine)
- Eurocopter AS 355 (RR Corp 250)
- Eurocopter AS 355 (Turbomeca Arrius)
- Eurocopter AS 365 (Excluding Engine)
- Eurocopter AS 365 (Turbomeca Arriel)
- Eurocopter BO 105 Series (Excluding Engine)
- Eurocopter BO 105 Series (RR Corp 250)
- Eurocopter EC 135 (Excluding Engine)
- Eurocopter EC 135 (PWC PW206)
- Eurocopter EC 135 (Turbomeca Arrius)
- Eurocopter EC 155 (Excluding Engine)
- Eurocopter EC 155 (Turbomeca Arriel)
- Eurocopter MBB-BK 117 (Excluding Engine)
- Eurocopter MBB-BK 117 (Turbomeca Arriel)

# 13. Helicopters with turbine engine (HTE), that may be eligible for a group rating (Licence holder must pass an aircraft type examination)

- Bell 206 (Excluding Engine)
- Bell 206 (RR Corp 250)
- Eurocopter AS 350 (Excluding Engine)
- Eurocopter AS 350 (Turbomeca Arriel)
- Eurocopter EC 120 (Excluding Engine)
- Eurocopter EC 120 (Turbomeca Arrius)
- Eurocopter EC 130 (Excluding Engine)
- Eurocopter EC 130 (Turbomeca Arriel)

# 14. Helicopters with piston engine (HPE), that may be eligible for a group rating (Licence holder must pass an aircraft type examination)

[nil]

B2 Avionic ratings are entered as per individual ratings 2 to 14 above, under the individual aircraft types for B1.1, B1.2, B1.3 and B1.4.

## **Group Ratings and Complex Aircraft**

Under SAR-66.45(g), holders of group ratings can certify all aircraft within the specified group, except for aircraft listed as large aircraft or those aircraft where CAAS has determined that the complexity of the aircraft requires a type rating.