



Australian Government

Civil Aviation Safety Authority

I, WILLIAM BRUCE BYRON, Director of Aviation Safety, on behalf of CASA, make this instrument under regulation 207 of the *Civil Aviation Regulations 1988*.

[Signed Bruce Byron]

Bruce Byron
Director of Aviation Safety and
Chief Executive Officer

27 February 2009

Civil Aviation Order 20.18 Amendment Order (No. 1) 2009

1 Name of instrument

This instrument is the *Civil Aviation Order 20.18 Amendment Order (No. 1) 2009*.

2 Commencement

This instrument commences on the day after it is registered.

3 Amendment of Civil Aviation Order 20.18

Schedule 1 amends Civil Aviation Order 20.18.

Schedule 1 Amendment

[1] Subsection 9B

substitute

9B Directions relating to carriage and use of automatic dependent surveillance – broadcast equipment

9B.1 This subsection applies to aircraft engaged in private, aerial work, charter or regular public transport operations.

9B.2 In this subsection and Appendix XI:

ADS-B means automatic dependent surveillance – broadcast.

ADS-B test flight means a flight to prove ADS-B transmitting equipment that is newly installed on the aircraft undertaking the flight.

aircraft address means a unique combination of 24 bits assigned to an aircraft by CASA or by a relevant RAAO for the purpose of air to ground communications, navigation and surveillance.

approved equipment configuration means an equipment configuration that:

- (a) meets the conditions for approval set out in Appendix XI; or
- (b) is approved in writing by CASA.

Note Equipment configurations approved by CASA are published in Appendix D of Advisory Circular 21-45.

ATSO means Australian Technical Standard Order of CASA.

EASA means the European Aviation Safety Agency.

ETSO means European Technical Standard Order of the EASA.

FAA means the Federal Aviation Administration of the United States.

FL 290 means flight level 290.

Note Flight level 290 is defined in subregulation 2 (1) of CAR 1988.

RAAO means a recreational aviation administration organisation that is recognised by CASA.

TSO means Technical Standard Order of the FAA.

- 9B.3 If an aircraft carries ADS-B transmitting equipment for operational use in Australian territory, the equipment must comply with an approved equipment configuration.
- 9B.4 If an aircraft carries ADS-B transmitting equipment for operational use in Australian territory, the equipment must transmit:
 - (a) a flight identification that corresponds exactly to the aircraft identification mentioned on the flight notification filed with air traffic control (**ATC**) for the flight; or
 - (b) if no flight notification is filed for the flight — a flight identification that is:
 - (i) for an aircraft registered on the Australian Civil Aircraft Register and operating wholly within Australian territory — the aircraft's registration mark; or
 - (ii) for an Australian aircraft registered by a RAAO — in accordance with the organisation's operations manual; or
 - (c) another flight identification directed or approved by ATC.
- 9B.5 If an aircraft carries ADS-B transmitting equipment that complies with an approved equipment configuration, the equipment must be operated continuously during the flight in all airspace at all altitudes unless the pilot is directed or approved otherwise by ATC.
- 9B.6 If an aircraft carries ADS-B transmitting equipment which does not comply with an approved equipment configuration, the equipment must be deactivated before the aircraft flies in Australian territory.

9B.7 However, the equipment need not be deactivated as mentioned in paragraph 9B.6 if the aircraft is undertaking an ADS-B test flight in VMC in airspace below FL 290.

9B.8 On and after 12 December 2013, if an aircraft operates at or above FL 290, it must carry serviceable ADS-B transmitting equipment that complies with an approved equipment configuration.

Note On and after 12 December 2013, an aircraft must carry and continuously operate compliant ADS-B transmitting equipment in accordance with paragraph 9B.8.

Apart from this, there is no obligation to carry compliant ADS-B transmitting equipment.

However, including the effect of subsection 9B.5 above, if compliant ADS-B transmitting equipment is in fact carried, whether voluntarily or in accordance with the obligation under 9B.8, it must be operated continuously in all airspace, at all altitudes.

9B.9 Paragraph 9B.8 does not apply to an aircraft if the aircraft owner, operator or pilot has written authorisation from CASA for the operation of the aircraft without the equipment.

[2] Appendix XI

substitute

Appendix XI

Approved equipment configuration — conditions for approval

- 1 An equipment configuration is approved only if it meets all of the conditions set out in this Appendix.
- 2 It is a condition of approval that the ADS-B transmitting equipment must be of a type that is:
 - (a) authorised:
 - (i) by the FAA in accordance with TSO-C166 as in force on 20 September 2004 or a later version as in force from time to time; or
 - (ii) by CASA in accordance with ATSO-C1004 as in force on 2 October 2003 or a later version as in force from time to time; or
 - (iii) by CASA in accordance with ATSO-C1005 as in force on 22 December 2004 or a later version as in force from time to time; or
 - (b) otherwise authorised by CASA for this purpose.
- 3 It is a condition of approval that, on and after 28 June 2012, the geographical position transmitted by the ADS-B transmitting equipment must be determined by:
 - (a) a GNSS receiver of a type that is authorised by the FAA in accordance with TSO-C145a or TSO-C146a as in force on 19 September 2002 or a later version as in force from time to time; or
 - (b) another system authorised by CASA for this purpose.
- 4 It is a condition of approval that the pressure altitude transmitted by the ADS-B transmitting equipment must be determined by:

- (a) a barometric encoder of a type that is authorised by:
 - (i) the FAA in accordance with TSO-C88a as in force on 18 August 1983 or a later version as in force from time to time; or
 - (ii) the EASA in accordance with ETSO-C88a as in force on 24 October 2003 or a later version as in force from time to time; or
 - (b) another system authorised by CASA for this purpose.
- 5 It is a condition of approval that, unless otherwise approved in writing by CASA, the ADS-B transmitting equipment must:
- (a) allow the pilot to activate and deactivate it during flight; and
 - (b) transmit the current aircraft address.

Note The requirement in paragraph 5 (a) is met if the ADS-B transmitting equipment has a cockpit control that enables the pilot to turn the ADS-B transmissions on and off.
