

Explanatory Statement

Civil Aviation Act 1988

Civil Aviation Order 82.5 Amendment Order (No. 1) 2007

Purpose

The purpose of *Civil Aviation Order 82.5 Amendment Order (No. 1) 2007* (the **CAO amendment**) is to ensure that new requirements in relation to the use of automatic dependent surveillance – broadcast transmitting equipment (**ADS-B**) apply, not only to Australian aircraft, but also, through their operators, to high capacity foreign aircraft in Australia engaged in regular public transport operations (the **relevant foreign aircraft operators**).

The new requirements apply to Australian aircraft by virtue of *Civil Aviation Order 20.18 Amendment Order (No. 1) 2007*. The CAO amendment commences at the same time as *Civil Aviation Order 20.18 Amendment Order (No. 1) 2007* and operates by imposing on the relevant foreign aircraft operators the same requirements for ADS-B as are imposed on Australian aircraft operators by *Civil Aviation Order 20.18 Amendment Order (No. 1) 2007*.

Airservices Australia trial

Airservices Australia (AA) undertook a long-standing operational trial of ADS-B in airspace in the vicinity of Bundaberg, Queensland. The main objective of the trial was to confirm ADS-B performance and assess whether it was at least as good as secondary surveillance radar (**SSR**) in accuracy, integrity, availability and reliability.

ADS-B avionics is a new aircraft surveillance system using ground stations to receive radio signals that are transmitted by ADS-B equipped aircraft. Using ADS-B avionics, an aircraft is able to broadcast its identity and position with a degree of accuracy, integrity and reliability that is at least as good as SSR. However, the installation of ADS-B ground stations is more economical than conventional radar stations. Hence, it provides the potential for a much greater geographical area to be covered by transmissions for surveillance by air traffic control, thereby enhancing safety and efficiency.

Both AA and CASA are now satisfied that ADS-B avionics are at least as effective as SSR. As a result, AA has commenced the deployment of 28 ADS-B ground stations across Australia. Known as the ADS-B Upper Airspace Project (**UAP**), this deployment will provide for a continent-wide surveillance service above FL300, as well as significant coverage to lower levels particularly in the vicinity of those aerodromes where ground stations are installed.

In addition to substantial safety benefits stemming from radar-like surveillance of ADS-B equipped aircraft, UAP offers efficiency benefits in relation to airspace capacity and the ability to accommodate preferred routes and levels. These ADS-B surveillance services are available to any aircraft operator who chooses to equip their aircraft and train their crews for ADS-B. Many Australian and foreign registered airline aircraft have done so and are already receiving early ADS-B derived services utilising the first 5 ADS-B ground stations that are now operative.

CASA has implemented arrangements for ADS-B for Australian aircraft in the following way.

Section 98 of the *Civil Aviation Act 1988* (the *Act*) empowers the Governor-General to make regulations for the Act and the safety of air navigation.

Under subregulation 207 (2) of the *Civil Aviation Regulations 1988 (CAR 1988)*, a person must not use an Australian aircraft in a class of operation if the aircraft is not fitted with the instruments and equipment approved and directed by CASA. In approving or directing, CASA may have regard only to the safety of air navigation.

Under subregulation 5 (1) of CAR 1988, where CASA is empowered to issue certain instruments such as approvals or directions, it may do so in a Civil Aviation Order (*CAO*).

For subregulation 207 (2) of CAR 1988, CASA made Civil Aviation Order 20.18 (*CAO 20.18*) setting out the approval and directions for aircraft instruments and equipment to meet basic operational requirements.

Civil Aviation Order 20.18 Amendment Order (No. 1) 2007 inserts a new subsection 9B into CAO 20.18 to provide approvals and directions for certain aircraft to carry ADS-B.

Under new paragraph 9B.2, ADS-B transmitting equipment carried by an Australian aircraft for operational use in any class of operation in Australia must comply with an approved equipment configuration set out in new Appendix XI of CAO 20.18, or as approved in writing by CASA.

Under new paragraph 9B.3, ADS-B transmitting equipment that does not comply must be deactivated before flight in Australia. Under new paragraph 9B.4, ADS-B transmitting equipment must transmit particular flight identification particulars.

New Appendix XI sets out the standards that ADS-B transmitting equipment must meet if it is to comply with the new requirements. Those standards are in conformity with the relevant ICAO standards and recommended practices.

Foreign aircraft

These requirements are applied to the relevant foreign aircraft operators in the following way.

Legislation

Under section 27 of the Act, CASA may issue Air Operators' Certificates (*AOCs*) with respect to aircraft, for the purpose of safety regulation.

Under sections 27AB, 27AC and 27AD of the Act, applicants must, in particular circumstances, provide CASA with certain manuals and other information, and undertake proving flights, tests and demonstrations.

Under section 27AE of the Act, CASA may require an applicant for a foreign aircraft AOC to provide additional information.

Under section 28 of the Act, CASA must issue the AOC if satisfied that the applicant can comply with the requirements of Australian civil aviation safety legislation.

Under paragraph 28BA (1) (b) of the Act, an AOC has effect subject to any conditions specified in the regulations or the CAOs.

Part 82 of the CAOs specifies conditions on AOCs. Civil Aviation Order 82.5 (*CAO 82.5*) contains conditions on those AOCs that authorise regular public transport operations in high capacity aircraft.

Subsection 10 of CAO 82.5 sets out obligations on operators who hold foreign aircraft AOCs for regular public transport operations in high capacity aircraft in Australia.

The CAO amendment inserts a new paragraph 10.8 into CAO 82.5. This provides that each relevant foreign aircraft operator must ensure that any of its aircraft that carry and use ADS-B equipment must do so in accordance with subsection 9B of *Civil Aviation Order 20.18 Amendment Order (No. 1) 2007*.

There is no requirement to carry ADS-B transmitting equipment that complies with the new standards — unless the equipment is to be put to operational use. Thus, if non-complying equipment is carried it must be deactivated.

Legislative Instruments Act

Under subsection 98 (4A) of the Act, CAOs made for the purposes of section 28BA of the Act are declared to be disallowable instruments. Under subparagraph 6 (d) (i) of the *Legislative Instruments Act 2003* (the *LIA*), an instrument is a legislative instrument for section 5 of the LIA if it is declared to be a disallowable instrument under legislation in force before the commencement of the LIA. The CAO amendment is, therefore, a legislative instrument and it is subject to tabling and disallowance in the Parliament under sections 38 and 42 of the LIA.

Consultation

Consultation under section 17 of the LIA has been undertaken with interested parties. A Notice of Proposed Rule Making (*NPRM*) for the carriage and use of ADS-B avionics in Australia was published by CASA on 17 November 2006. Copies of the draft CAO amendment were included and public comment invited. The NPRM proposed operational and technical standards supporting the voluntary fitment of ADS-B equipment in Australian aircraft, and in foreign-registered aircraft operating into Australia.

Most of the respondents to the NPRM supported the CASA proposals. CASA took all comments into account and used a number of them to fine-tune its proposals for final rule-making. The Notice of Final Rule-Making, including the final version of the CAO amendment, was published by CASA on the website on 19 April 2007.

Regulation Impact Statement

The Office of Best Practice Regulation does not require preparation of a Regulation Impact Statement in this case because a preliminary assessment of business compliance costs in the context of the nature of the instrument indicates that the amendment will have only a low impact on business.

Commencement and making

The CAO amendment takes effect on the day after it is registered. It has been made by the Director of Aviation Safety, on behalf of CASA, in accordance with subsection 84A (2) of the Act.

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