

## **Explanatory Statement**

### **Civil Aviation Act 1988**

### **Civil Aviation Order 20.11 Amendment Order (No. 1) 2008**

#### **Legislation**

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.

#### **Background — the Cospas-Sarsat satellite service**

Cospas-Sarsat is an international service provider currently used in Australia to provide satellite-based emergency locator transmitter (*ELT*) monitoring services. The ELT also emits a transmission on a frequency which can be detected, and homed in on, by overflying aircraft.

The Cospas-Sarsat system will cease processing the 121.5 MHz/243 MHz signals from ELTs on 1 February 2009. Thereafter, only 406 MHz ELTs will be identified by the Cospas-Sarsat system.

Cospas-Sarsat made the decision to cease satellite processing at 121.5 MHz in response to guidance from the International Civil Aviation Organization (ICAO) and the International Maritime Organization (IMO). These United Nations organisations mandate safety requirements for aircraft and maritime vessels and have recognised the limitations of the 121.5 MHz beacons and the superior capabilities of the 406 MHz alerting system where the position of the distress can be relayed to rescue services more quickly, more reliably and with greater accuracy, particularly if coupled with GPS position data.

While the 406 MHz transmission will be essential for satellite monitoring beyond 1 February 2009, a 121.5 MHz component of the transmission is still necessary to assist with the final homing of an activated beacon.

In preparation for these changed arrangements, regulation 252A of the *Civil Aviation Regulations 1988 (CAR 1988)* has been amended by *Civil Aviation Amendment Regulations 2008 (No. 2)* (the *CAR amendment*), for which the commencement date is 1 February 2009.

#### **CAR 1988 requirements for ELTs**

Under subregulation 252A (1) of CAR 1988, the pilot in command of an Australian aircraft that is not an exempted aircraft may begin a flight only if the aircraft is fitted with a working approved ELT, or has an accessible working approved portable ELT.

Under subregulation 252A (7), exempted aircraft means high-capacity regular public transport aircraft, high-capacity charter aircraft, single seat aircraft, turbo-jet powered aircraft, balloons, airships or gliders. *High capacity* means permitted by the aircraft's certificate of type approval to have a maximum seating capacity of more than 38 seats or to carry a maximum payload of more than 4 200 kilograms.

Under subregulation 252A (2) of CAR 1988, the requirement to have an ELT does not apply if the flight is to take place wholly within a radius of 50 miles from the first take-off aerodrome, the flight is an agricultural operation, CASA has given permission for the flight, the aircraft is new and the flight is for a purpose associated with its manufacture, preparation or delivery, the flight is for the purpose of moving the aircraft to a place to have an approved ELT fitted to the aircraft, or to have an approved ELT that is fitted, repaired or overhauled.

Under subregulation 252A (3), the requirement to have an ELT does not apply if, when the flight takes place, the fitted or carried ELT has been, for not more than 90 days, temporarily removed for inspection or repair and replaced by a warning placard, and the removal has been recorded in the appropriate log book.

Under subregulation 252A (7) of CAR 1988:

**approved ELT** means an **eligible ELT** that meets the standards set out in subregulation 252A (5).

**approved portable ELT** means an **eligible ELT** that meets the standards set out in subregulation 252A (6).

**eligible ELT** means an emergency locator transmitter, an emergency position indicating radio beacon (**EPIRB**) or a personal locator beacon (**PLB**) that meets the standards set out in subregulation 252A (4).

Under subregulation 252A (4) of CAR 1988, an eligible ELT must operate simultaneously in the frequency band 406 MHz – 406.1 MHz, and on frequency 121.5 MHz. It must be registered with the Australian Maritime Safety Authority (**AMSA**). If fitted with a lithium-sulphur dioxide battery, the battery must be of a type authorised by the USA FAA in accordance with technical standards order (TSO) TSO-C142 or TSO-C142a.

Under subregulations 252A (5), to be an approved ELT, an eligible ELT must meet certain requirements and standards. It must automatically activate on impact. It must be of a type authorised by the FAA in accordance with TSO-C91a for operation on 121.5 MHz, and TSO-C126 for operation in the frequency band 406 MHz – 406.1 MHz. Alternatively, an eligible ELT may be of an equivalent type to this, but only if CASA is satisfied that it is operationally equivalent and performs at an equivalent level of performance.

Under subregulations 252A (6) of CAR 1988, to be an approved portable ELT, an eligible ELT must meet certain requirements and standards. It must be portable. It may be an EPIRB that meets the requirements of AS/NZS 4280.1:2003. It may be a personal locator beacon that meets the requirement of AS/NZS 4280.2:2003. It may be a type authorised by the FAA in accordance with TSO-C91a for operation on 121.5 MHz, and TSO-C126 for operation in the frequency band 406 MHz – 406.1 MHz. Alternatively, it may be of an equivalent type to the latter, but only if CASA is satisfied that it is operationally equivalent and performs at an equivalent level of performance.

Subregulation 252A (7) more specifically identifies the AS/NZS standards mentioned above as the standards for 406 MHz satellite distress beacons Part 1 (EPIRB) and Part

2 (PLBs) as in force from time to time or a later edition of the standard as in force from time to time.

Subregulation 252A (8) provides that a reference to a particular TSO is a reference to the TSO as in force from time to time or a or a later version of the particular TSO as in force from time to time. These “incorporation by reference” type provisions of the regulations are expressly authorised by subsection 98 (3A) of the Act.

The former regulation 252A had stated specific AS/NZS and TSO standards that had been superseded by later standards, requiring an amendment to the regulations to correct this. In future, revised AS/NZS and TSO standards will apply automatically. These are standards of the highest integrity, accepted as reliable for such automatic application on revision.

Because the former regulation 252A had stated obsolete AS/NZS and TSO standards, in May 2008 CASA had issued an exemption permitting relevant aircraft to carry ELTs nominally in breach of the regulations but compliant with the more recent standards. That exemption ceases to have effect on 1 February 2009.

The CAR amendment has given rise to the need to amend a relevant Civil Aviation Order which also referred to superseded standards for ELTs.

#### **CAO 20.11 requirements for ELTs**

*Civil Aviation Order 20.11 (CAO 20.11)* deals, among other things, with carriage of emergency and life-saving equipment on flights over water. Subsection 6 of CAO 20.11 deals with emergency signalling equipment, including ELTs.

The changes made by the CAR amendment made it necessary to amend subsection 6 of CAO 20.11 to ensure that ELTs carried over water would meet the standards set out in regulation 252A of CAR 1988, as amended. *Civil Aviation Order 20.11 Amendment Order (No. 1) 2008 (the CAO amendment)*, therefore, amends CAO 20.11 to this effect. The opportunity was also taken to improve the drafting of the provisions.

#### **Details of the CAO amendment**

Paragraph 6.1 in the CAO amendment provides that an aircraft required to carry life rafts under must be fitted with, or carry, emergency signalling equipment. If 1 life raft is carried, at least 1 approved ELT or 1 approved portable ELT must be carried. If more than 1 life raft is carried, at least 1 approved ELT and 1 approved portable ELT or 2 approved portable ELTs must be carried. A supply of pyrotechnic distress signals must also be carried. These requirements are not new but they have been recast.

A note states that if carrying an approved portable ELT to comply with this requirement, CASA recommends an EPIRB.

Paragraph 6.2 in the CAO amendment provides that a single engine aircraft must be fitted with, or carry, at least 1 approved ELT or 1 approved portable ELT if it is on a flight over water, and not required to carry a life raft, and either not equipped with radio communication equipment, or not capable of continuous air-ground communication. These requirements are not new but they have been recast.

A note again indicates that if carrying an approved portable ELT to comply with this requirement, CASA recommends an EPIRB.

Paragraph 6.3 in the CAO amendment provides that if an approved portable ELT is an EPIRB, it must be carried in, or adjacent to, a life raft, or adjacent to an emergency exit used for evacuation of the aircraft in an emergency. This is, in effect, a new requirement, making more specific the previous requirement that the equipment should be stowed to facilitate its use.

Paragraph 6.4 in the CAO amendment provides that if an approved portable ELT that is carried is a PLB, it must be carried on the person of a member of the operating crew, or in, or adjacent to, a life raft or adjacent to an emergency exit used for evacuation of the aircraft in an emergency. This is, in effect, a new requirement as before.

Paragraph 6.5 in the CAO amendment provides that the pilot in command of an aircraft must not begin a flight, and the operator must ensure that the flight is not begun, if an approved ELT or approved portable ELT on board the aircraft for CAO 20.11 has not successfully undergone the periodic inspection and testing recommended for it by its manufacturer. This is a new requirement in the CAO. It is, in effect a restatement of the existing legal obligations arising under Part 4A of CAR 1988.

Paragraph 6.6 in the CAO amendment provides that before an approved ELT or approved portable ELT may be used in an aircraft for CAO 20.11, it must be registered with AMSA. This is a new requirement in the CAO. It is, in effect a restatement of the existing legal obligation arising under paragraph 252A (4) (b) of CAR 1988.

Finally, paragraph 6.7 in the CAO amendment defines the terms *approved ELT* and *approved portable ELT* as having the same meanings as in subregulation 252A (7) of CAR 1988. This is, in effect, a new requirement. ELTs must be in accordance with the revised standards set out in regulation 252A of CAR 1988 because the Cospas-Sarsat system will no longer process signals from older analogue ELTs operating on frequencies 121.5/243 MHz.

### **Legislative Instruments Act**

Under subregulation 5 (1) of CAR 1988, if CAR 1988 empowers CASA to issue instruments such as directions, CASA may do so in the form of CAOs. Under subsection 98 (5) of the Act, where regulations provide for an instrument to be issued in the form of a CAO, the CAO so made is a legislative instrument. Under regulations 207 and 252 of CAR 1988, CASA may give relevant directions and has chosen to give them in CAO 20.11. The CAO amendment to CAO 20.11 is, therefore, a legislative instrument. 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 was an implicit part of the consultation undertaken for the CAR amendment mentioned above. The joint CASA/Industry

Standards Consultative Committee was briefed about the CAR amendment and its date of effect. Industry was also alerted to the proposal through CASA's website and its *Flight Safety Australia* publication since early 2008.

#### **Office of Best Practice Regulation**

The Office of Best Practice Regulation (**OBPR**) does not require preparation of a Regulation Impact Statement (**RIS**) in this case. A RIS Exemption, reference 9618, was obtained from OBPR for the CAR amendment and applies also to the consequential CAO amendment. Both sets of amendments are expected to have only a low cost impact on industry.

#### **Commencement and making**

The CAO amendment commences, simultaneously with the CAR amendment, on 1 February 2009 following registration. It has been made by the Director of Aviation Safety, on behalf of CASA, in accordance with subsection 84A (2) of the Act.

[Civil Aviation Order 20.11 Amendment Order (No. 1) 2008]