



بِسْمِ اللّٰهِ الرَّحْمٰنِ الرَّحِیْمِ

CIVIL AVIATION DEPARTMENT  
MINISTRY OF CIVIL AVIATION AND COMMUNICATION  
Male'  
Republic of Maldives

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## AIR SAFETY CIRCULAR

No.	AW15
Issue	02
Dated	14 January 2009

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### AIRCRAFT MAINTENANCE TRAINING

#### 1. Introduction

A number of Maldivian Students have completed Aircraft Maintenance Training from different organisations, some not approved by Civil Aviation Department (CAD). Some of them have finished training from organisations that have been inspected and accepted, but has not sustained compliance with the conditions of acceptance or level of compliance required by the applicable Civil Aviation Regulations; hence not issued an approval certificate.

#### 2. Purpose

This Air Safety Circular (ASC) gives guidance on obtaining a Maldivian Aircraft Maintenance Licence to those students who have completed an abinitio training from a maintenance training organisation that has been inspected by CAD, but has not issued an approval certificate.

#### 3. Compliance

The applicant with a course completion certificate, obtained prior to the 1 January 2007, from a maintenance training organisation that has not been issued an approval certificate from CAD, shall be eligible for the exemptions in Para 3.1 and 3.2. All other requirements stipulated in MAR D02 shall be complied to obtain a Maldivian Aircraft Maintenance Licence.

Any Applicant with course completion certificate, obtained after 1 January 2007, shall fully comply with MCAR-66.

##### Examination Requirements

The Director may exempt all the examination requirements stipulated in MAR D02, except Airworthiness Administration (commonly known as Air Law) examination, subject to the satisfactory performance in an oral examination conducted in accordance with Para 4. The Director may impose any MAR D 02 / MCAR 66 examinations, if found that the applicant needs further examination, upon assessment in the oral.

##### Experience Requirements

The applicant shall show documented aircraft maintenance experience of minimum 3 years, of which 6 months shall be in the past 2 years. The documented aircraft maintenance experience

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shall be submitted in a manner acceptable to the CAD and in compliance with MAR D 02 or MCAR-66 experience requirements.

#### Licence Category

Any application accepted prior to 1 January 2007 shall be issued a MAR D 02 licence with categories A, C, E, I, and/or R, depending on the applicants experience and training.

Applications accepted after 1 January 2007 shall be issued with a MCAR-66 licence with applicable limitations in categories A, B1 and B2, depending on the applicants experience and training. The Director may limit the MCAR-66 licence category to A, depending on the performance of the oral examination in Para 4.

#### 4. Oral Examination

The applicants shall request for an oral examination through a letter addressed to the Director, along with copies of course completion certificate. The oral examination shall be conducted on subjects and topics covered during the study period of the training course. Applicants are requested to attend fully prepared.

#### 5. Effectivity

This Air Safety Circular comes in to effect forthwith and valid till end of June 2009.



Aiminath Solih  
**DIRECTOR GENERAL**



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**DEPARTMENT OF CIVIL AVIATION**

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**AIR SAFETY CIRCULAR**

No. AW 03

Issue: 01

02 November 1993

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**DISPENSING OF FUEL FROM BARRELLED SUPPLIES**

**1. INTRODUCTION**

- 1.1 The Civil Aviation Regulations, Maldives require that a person who manages an Aviation Fuel Installation at an aerodrome, shall inter-alia satisfy himself on delivery of fuel into the installation that the fuel is of a grade appropriate to the installation to which it is being delivered; that the installation is capable of storing and dispensing the fuel in a state fit for use on aircraft and the fuel being delivered has been sampled and tested to ensure that it is in a fit condition for use in aircraft. When aviation fuel is dispensed from the installation into an aircraft, he shall also satisfy himself by sampling and testing that the fuel is fit for use before dispensing.
- 1.2 Instances have come to the notice of this Department where one of the turbine engined aircraft operators has imported aviation turbine fuel (ATF) in sealed barrels, whereas another piston engined aircraft operator has procured and stored his AVGAS supplies in barrels. The barrelled ATF supplies are perhaps intended to increase the payload and the range of aircraft operations in case this ATF is made use of for refueling of the aircraft when it is away from the main base.

**2. DEFINITIONS**

2.1 For the purpose of this circular

- (1) "Aviation Fuel" means fuel intended for aircraft;
- (2) "Aviation Fuel Installation" means any apparatus or container, including a vehicle or a vessel, designed, manufactured or adopted for the storage of aviation fuel or for the delivery of such fuel to an aircraft.

### **3. PURPOSE**

- 3.1 The purpose of this Air Safety Circular is to caution the operators of the inherent dangers involved with the barrel refueling unless meticulous care is taken for adherence to the approved procedures for handling, storage and dispensing of such fuel.

### **4. PROCEDURE**

The Director of Civil Aviation has to ensure that any aviation fuel which is intended or likely to be delivered for use in an aircraft is fit for use. For this purpose a person managing the Aviation Fuel Installation shall be responsible for formulating the handling, storage and dispensing procedures including sampling and testing of the Aviation Fuel and other quality control checks. He shall also ensure that these procedures are duly approved by the DCA before permitting aviation fuel to be dispensed from the installation. The precautions while handling barrelled fuel supplies have been shown in the following paragraphs for the guidance of all concerned.

#### **4.1 DELIVERY, HANDLING AND STORAGE**

- 4.1.1 Before accepting delivery from the fuel supplier, a check should be made of the state of barrels and their seals. Delivery should be refused of any leaking barrels or if their seals are broken.
- 4.1.2 The number of barrels, grade markings, and fuel company inspector's marks should be checked against the details in the suppliers' release and consignment notes.
- 4.1.3 The barrels should be stored under cover, clear of the ground if possible and on their sides. Further they should be stored in such a manner that the bungs are in the 3 O'clock or 9 O'clock position to avoid ingress of water.
- 4.1.4 A system of storage or a procedure should be followed which will ensure that the oldest fuel in store is used first, according to batch numbers and date of filling of the barrels.
- 4.1.5 To minimise the risk of fueling errors, different grades of fuel should be stored separately from each other.

#### **4.2 SAMPLING**

Before fuel is decanted, or dispensed from barrels into aircraft, it should be checked for contamination as follows.

- a) After removing bung, check for water contamination by using water finding paste on the end of a suitable dipstick which should be allowed to rest on the barrel bottom for no longer than 10 seconds.
- b) Draw a bottom sample of about 1 pint by use of a plastic or glass tube and transfer sample into a clean glass container. Check for colour appropriate to its grade (Blue for AVGAS, undyed and clear for ATF) and sediments. Check for free and suspended water contamination by using Chemical Water Detector eg. Shell Detector or Aquadis Capsule etc. in addition to the paste check in the case of ATF.

- c) The presence of free or suspended water is indicated by a distinct change in the colour of the paste or detector element.
- d) All sampling equipment should be maintained in a scrupulously clean condition.
- e) If the sample taken from the barrel proves unsatisfactory, the contents must not be used for aviation purposes and immediate action should be taken to identify the cause.

### **4.3 DECANTING AND DISPENSING**

4.3.1 Fuel should be decanted from barrels into fueling vehicles or storage preferably by means of a suitable pump and through a microfilter or filter separator, though AVGAS may alternatively be decanted through a funnel fitted with a 180 mesh (or 20x250 Hollander weave) gauze filter or a good clean chamois leather. It is important to ensure that all chalk deposits are removed from a new chamois leather before use.

4.3.2 If fuel is to be dispensed direct from barrels into aircraft, the barrels should be stood on end and the contents allowed to settle for a minimum of 10 minutes before the sampling check referred to in paragraph 4.2 is completed. If satisfactory samples are obtained the fuel should be dispensed through a suction standpipe designed so that fuel cannot be drawn from a depth lower than 3 inches from the barrel bottom. The bottom 3 inches of fuel should not be used in aircraft.

4.3.3 AVGAS should be dispensed direct into aircraft only through a 180 mesh gauze or equivalent filter.

4.3.4 Delivery of aviation turbine fuel direct into aircraft tanks should be made through a microfilter, or filter separator with a nominal 5 micron rating for solid particles and 15 parts per million for water.

4.3.5 All equipment used in decanting or dispensing barrelled fuel should be kept in a scrupulously clean condition.

4.3.6 After decanting or dispensing fuel, replace bungs tightly. Any barrel still containing fuel that is to be used in aircraft should be re-sealed.

4.3.7 Barrelled AVGAS should not be used after more than six months from the date the barrels were filled by the supplying company, or twelve months in the case of turbine fuel, unless the fuel has been assessed as fit for use in aircraft by laboratory tests.

### **5. PRESERVATION OF RECORDS**

Records should be kept of all barrelled deliveries, decanting and dispensing of fuel, and sampling checks. These records shall be preserved for a period of 12 months and shall be produced to the DCA Surveyor for his scrutiny on request.



Mohamed Shareef  
**DIRECTOR OF CIVIL AVIATION**



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## DEPARTMENT OF CIVIL AVIATION

Male'  
Republic of Maldives

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# AIR SAFETY CIRCULAR

No. AW 08  
Issue: 02  
10 August 1997  
No. of Pages 02

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### OPERATION OF FOREIGN REGISTERED AIRCRAFT

#### 1. INTRODUCTION

- 1.1 The procedures for importation of aircraft into the Maldives including the requirements for obtaining Maldivian Certificate of Registration and Certificate of Airworthiness have already been defined in Air Safety Circular No. AW 01 dated 20 October 1991. However, the Air Safety Circular No. AW 01 does not address the topic on operation of foreign registered aircraft in the Maldives. Of late there has been an increase in the number of foreign registered aircraft operated in this country. This has reason for concern over the safety of aviation activities here. Although most of the operations are safely conducted, increase in number and types of foreign registered aircraft needs to be taken account of carefully.

#### 2. PURPOSE

- 2.1 The purpose of this Air Safety Circular is to keep the operators of foreign registered aircraft engaged in public transport in the Maldives informed that such operations cannot be permitted for an unlimited period and the aircraft must be transferred to Maldivian registration and Certificates of Airworthiness obtained. The Aircrew and Maintenance Engineers should obtain Maldivian Licences for operation of these aircraft in the Maldives on a time bound basis.

#### 3. COMPLIANCE

- 3.1 Authorisation to operate foreign registered aircraft in the Maldives will be granted if the aircrafts' State of Registry reaches an understanding with the Maldivian Civil Aviation Department and is responsible for monitoring the airworthiness and safe operation of the aircraft by conducting appropriate inspections and continuous liaison is established between the relevant State of Registry and Civil Aviation Department, Maldives. The operator also must conform to the specifications / requirements as per Air Safety Circular No. AW 01 issue 1 and equip the aircraft as per MAR Series C 9.

#### 4. PROCEDURE

- 4.1 Prior to importation of foreign registered aircraft on a permanent basis, the operator shall ensure compliance with the requirements as stipulated in the Air Safety Circular No. AW 01 Issue 1 and forward the following data to the Director.

- a) Equipment status of the aircraft vis-a-vis the requirement stipulated in MAR series "C" No. 9.
  - b) Copy of the type certificate issued by the country of manufacture.
  - c) Information regarding availability/progress for type certification by regulatory airworthiness authority in a country(s) other than the state of manufacture.
  - d) Mandatory Modifications and their status of compliance.
  - e) Copies of all manuals pertaining to the maintenance and operations of the aircraft which should be in English, with a commitment to the DCA that they will be amended and updated from time to time.
- 4.2 Foreign registered aircraft already engaged in public transport under an Air Operators Certificate (AOC) issued by the Department of Civil Aviation must maintain and supply on a regular basis to the DCA the following data.
- a) Fleet performance report as per MAR series "C" No. 3
  - b) Reported service defects and their rectification
  - c) Fuel and oil consumption.
  - d) Compliance of modifications / service bulletins / service instructions.
- 4.3 The operator must arrange an "Approved" training course on the type of aircraft and engines for at least one DCA officer prior to commencement of the operations in the Maldives.
- 4.4 Operation of the foreign registered aircraft by the existing AOC holders beyond one calendar year from the effective date of this circular may be permitted provided;
- a) type certification by CAA/FAA is obtained during the period;
  - b) the aircraft is brought on the Maldivian National Register and issued with the Maldivian C of A;
  - c) the aircraft is equipped with all Mandatory equipment required vide relevant Maldivian Regulations;
  - d) all maintenance and operations personnel acquire appropriate Maldivian licences / validations.
  - e) copies of all maintenance and operation manuals in English are supplied to the DCA.



Mahmood Razee  
**DIRECTOR OF CIVIL AVIATION**



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**DEPARTMENT OF CIVIL AVIATION**

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**AIR SAFETY CIRCULAR**

No. AW 09  
Issue: 01  
15 August 1992

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**MARKING OF 'EMERGENCY EXIT' AND 'BREAK-IN' AREAS ON FUSELAGE**

**1. INTRODUCTION**

- 1.1 The importance of the correct positioning and legibility of aircraft markings and placards, especially those relating to emergency situations cannot be over emphasised. In pursuance of Civil Aviation Regulations Maldives and ICAO standards, it is therefore, obligatory on the part of the operators to comply with the requirements laid down in this regard.

**2. PURPOSE**

- 2.1 The purpose of this Air Safety Circular is to remind the Operators and Maintenance Organisations to comply with the following requirements and to ensure that all placards and markings especially those which pertain to emergency equipment and exits, should be inspected periodically to ensure legibility, complement and location.

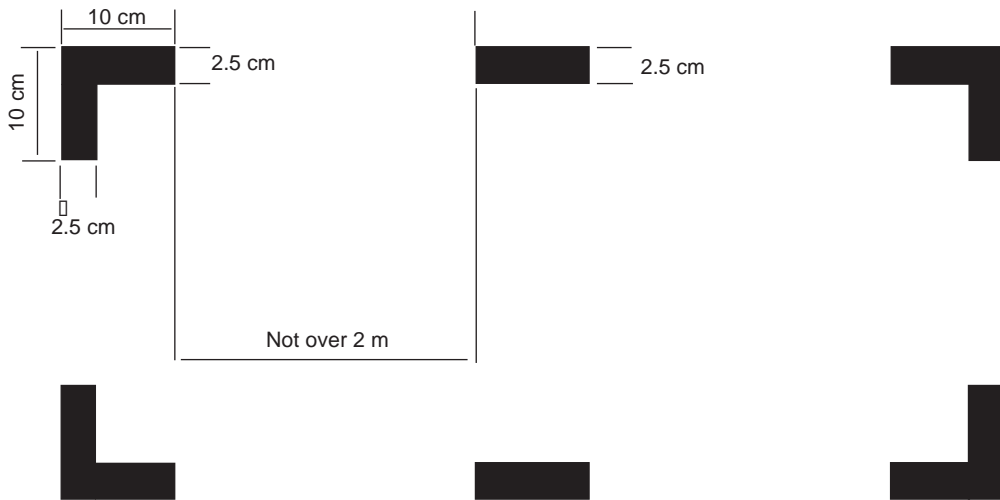
**3. REQUIREMENTS**

- 3.1 Every exit from the aircraft shall be marked with the words 'Exit' or 'Emergency Exit' in capital letters and their equivalent in Dhivehi.
- 3.2 (1) Every exit from the aircraft shall be marked with instruction in English and Dhivehi and with diagrams, to indicate the correct method of opening the exit.
- (2) The markings shall be placed on or near the inside surface of the door or other closure of the exit and, if it is openable from the outside of the aircraft, on or near the exterior surface.
- 3.3 (1) Every aircraft of which the maximum total weight authorised exceeds 3600 kg, shall be marked upon the exterior surface of its fuselage with markings to show the areas (referred to as 'break-in areas') which can for purposes of rescue in an emergency, be most readily and effectively broken into by person outside the aircraft.



- (2) The break-in areas shall be rectangular in shape and shall be marked by right-angled corner markings, each arm of which shall be 10 centimeters in length along its outer edge and 2.5 centimeters in width as shown below.
- (3) If the corner markings are more than 2 m apart, intermediate lines 10 cm x 2.5 cm shall be inserted so that there is no more than 2 m between adjacent marks.
- (4) The words 'Cut Here in Emergency' shall be marked across the centre of each break-in area in capital letters.

#### MARKING OF BREAK-IN POINTS



3.4 On every flight by an aircraft of which the maximum total weight authorised exceeds 5700 kg every exit from such an aircraft intended to be used by passengers in an emergency shall be marked upon the exterior of the aircraft by a band not less than 5 centimeters in width outlining the exit.

3.5 The markings required by this circular shall:-

- (1) be painted, or affixed by other equally permanent means;
- (2) except in the case of the markings required by paragraph 3.4 be red in colour and in any case in which the colour of the adjacent background is such as to render red markings not readily visible, be outlined in white or some other contrasting colour in such a manner as to render them readily visible;
- (3) in the case of the markings required by paragraph 3.4 of this circular, be of a colour clearly contrasting with the back ground on which it appears;
- (4) be kept clean and unobscured at all times.

Mohamed Shareef  
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**CIVIL AVIATION DEPARTMENT**  
**Ministry of Transport and Civil Aviation**

Male'  
Republic of Maldives

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## **AIR SAFETY CIRCULAR**

No. AW 12  
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03 August 2000

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### **EMERGENCY LOCATOR TRANSMITTERS**

#### **1. INTRODUCTION**

- 1.1 All aircraft (i.e. fixed wing and Rotary Wing) which are engaged in Public Transport Operations or Aerial work in the Republic of Maldives, are required to be equipped with an Emergency Locator Transmitter.
- 1.2 This regulation also applies to foreign-registered aircraft which are operating into and out of the Republic of Maldives.
- 1.3 This Air Safety Circular sets out the new regulatory and technical requirements and minimum performance standards for Emergency Locator Transmitters (ELT) installed in aircraft operating in the Republic of the Maldives, taking into account the introduction of 406.025 MHz (referred to henceforth as 406MHz) for use with the international Search And Rescue Satellite (SARSAT).

This feature enables the appropriate regional SAR reporting and co-ordination centre to identify the aircraft Nationality, Registration Mark and position to an accuracy of 15-20 km, and report accordingly to the State of Registration within minutes of ELT activation.

The standard international distress frequency of 121.5 Mhz permits Search and rescue operations to an accuracy of 1-2 km.

#### **2. REGULATORY REQUIREMENT**

- 2.1 All aircraft, (fixed wing and rotary wing) operating within Maldivian airspace and certified in the Public Transport category, (Passenger and Cargo), are required to be fitted with an Emergency Locator Transmitter that meets or exceeds FAA TSOC91a and complies with European Directive 62.

The technical specifications of FAA-Technical Service Order-C91a and C126 and European Directive 62 and Joint Technical Service Order 2C91a are outlined in Part 3 Technical.

### **3. TECHNICAL**

The following specifications comprise TSO-C91 and ED 62.

- 3.a Automatic Operation. The ELT shall incorporate as an integral part, an inertia switch with a 6g threshold and a minimum velocity of 3 (three) feet per second.

*Note 1: As an alternative to an inertia switch, a frangible switch which distorts in the event of a crash is acceptable.*

- 3.b Frequencies The ELT shall be capable of transmitting on the International Distress frequency of 121.5 MHz and 406 MHz simultaneously.

*Note 2: It is recognised that many ELTs produced for Civil Aviation use also incorporate 243 MHz for military aviation use. This additional frequency is acceptable to CAD.*

- 3.c Sea-worthiness The ELT shall be water proof in both fresh water and salt water.

- 3.d Buoyancy The ELT shall be buoyant in both fresh water & salt water, and shall float in such manner as to ensure that signal radiation is omnidirectional and vertically polarised.

- 3.e Signal Strength Peak Effective Radiated Power (PERP) shall be not less than 75 milliwatts on EACH Carrier frequency.

*Note 3 The ELT shall be capable of producing a useable signal in open seas up to seastate 7 (Wind force 10- beaufort scale).*

- 3,f Colour and shape. The ELT shall be either international orange or fluorescent orange for easy identification.

The ELT shall be of such a shape that it has no projections or sharp edges which could damage survival equipment (life jackets/life rafts) or cause personal injury.

- 3.g Fire Resistance The ELT shall be constructed of a material which does not support combustion.

- 3.h Battery Life The ELT shall incorporate an integral battery capable of continuous transmission at PERP of 75 milliwatts for a minimum period of 48 hours.

- 3.i Remote Activation The ELT shall be installed in the aircraft in such a manner that it may be activated by the flight crew from the flight deck. (See also Part 3. k.v.i)

### 3.k Activation

- (i) The ELT shall be capable of activation by either:-
  - an automatic inertia switch  
OR
  - a frangible switch  
AND
  - a remote switch at the flight deck  
AND
  - an ON/OFF switch on the ELT itself.
- (ii) The ELT shall be capable of producing a signal at not less than 75 milliwatts PERP within not more than 5 seconds of activation.
- (iii) The ELT shall be constructed in such a manner that it cannot be accidentally activated by mechanical shocks or electro-magnetic forces encountered during normal (see note 5) aircraft operation.

*Note 5: 'Normal Operation' means horizontal, vertical and component forces produced during Take-off, landing and turbulence encountered in flight.*
- (iv) Activation of the ELT during normal operation of the aircraft (i.e accidental activation) shall not present a threat to the continued safe flight of the aircraft.
- (v) The ELT shall be constructed in such a manner that accidental activation is minimal.
- (vi) The flight crew shall have easy access, whilst seated at their normal duty stations, to an ELT switch which will be guarded and labelled to minimise inadvertent operation of the ELT. This switch, when moved to the ON position, will override the inertia switch and activate the ELT.
- (vii) The ELT unit shall have a warning light incorporated into its construction which will illuminate to indicate that it is activated.

## 4. MARKINGS

The ELT shall display on an exterior face which shall be visible & legible when the unit is mounted in its approved position in the aircraft the following information:-

- 4.a Aircraft Registration.
- 4.b ELT Serial number
- 4.c ELT Specification (eg. TSO# and/or ED#)
- 4.d Date of Manufacture.
- 4.e date of expiry of battery (Day/month/Year).

## 5. LOCATION

- 5.a The ELT shall be installed in the aircraft at a convenient location such that any member of the flight or cabin crew is able to detach it quickly from its mounting point and carry it out of the aircraft in the event of a crash-landing or ditching.
- 5.b The Location of the ELT shall be clearly marked in bold lettering in capital letters not less than 1.5 cm high in Dhivehi and English immediately adjacent to the ELT itself with the words:- "EMERGENCY LOCATOR TRANSMITTER HERE"

## 6. FUNCTIONAL TESTING

It is the responsibility of the operator to conduct a functional test of the ELT every 90 days. Such tests are to be recorded in the aircraft Technical Log Book and the Airframe log book. All tests should be carried out within five minutes of the hour (i.e five minutes BEFORE to 5 minutes PAST) the hour. ATC should be notified in advance.

### SAFETY WARNING

It is common international practice to conduct a functional test by selecting 121.5 MHz on the aircraft VHF communication equipment, and then by means of the remote switch at the flight deck activating the ELT for 2-3 seconds.

Over a period of some months, this will deplete the integral battery and reduce the continuous transmission life (item 3-h refers)

Operators are to refer to the manufacture Operating & Maintenance Manual for guidance in this matter and make provision for increased frequency battery replacement as appropriate.

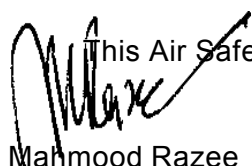
## 7. FREQUENCY 406MHz REGISTRATION WITH CAD

Those ELTs with 406 MHz capability are intended for use with the SARSAT (Search And Rescue Satellite) System.

Each individual ELT having 406 MHz capability is required to be "coded" with the following information:-

- National registration (eg: 8Q)
- Serial Number of the individual ELT.

It is required of each operator that the ELT Serial number and registration mark of the aircraft in which it is installed be registered with the CAD



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**DIRECTOR GENERAL OF CIVIL AVIATION**