

	REPUBLIC OF SOUTH AFRICA CIVIL AVIATION AUTHORITY	CAA Private Bag x08 Waterkloof 0145
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AIRWORTHINESS

AVIONICS

INSTALLATION, LICENSING, OPERATION, MAINTENANCE AND TESTING OF RADIO COMMUNICATIONS AND NAVIGATIONAL AID EQUIPMENT IN AIRCRAFT

- Λ Indicates changes.
- Λ This AIC replaces AIC 62A1 of 99-04-15.
- Λ1. GENERAL**
- 1.1 Part 91.05.1 of the Civil Aviation Regulations, 1997, as amended, refers to the requirements relating to the type and installation of equipment in aircraft.
- 1.2 In this circular the term "radio equipment" includes all communication and navigational aid equipment using electronic principles for its operation.
- 1.3 For the information and guidance of all concerned the following requirements must be met in respect of radio equipment installed in aircraft.
- 2. TYPE AND INSTALLATION APPROVAL OF RADIO EQUIPMENT IN AIRCRAFT**
- 2.1 Radio equipment for use in aircraft must be of a type approved by the Commissioner and must be installed in accordance with prescribed requirements. As the installation of such equipment constitutes a modification and approval must be sought prior to installation.
- Λ3. AIRCRAFT STATION LICENCES**
- 3.1 Aircraft owners should apply for the issue of Aircraft Station Licences by using an application form obtainable from the issuing authorities indicated in paragraph 3.4, to whom it should be returned when completed. Please note that the correct model designation of the equipment as well as the specific frequencies to be used should be furnished. If this is not done the issue of an Aircraft Station Licence could be delayed.
- 3.2 Application for an Aircraft Station Licence shall be made whenever -
- 3.2.1 any radio apparatus is installed or removed from an aircraft; and
- 3.2.2 an aircraft in which radio apparatus is installed changes ownership.
- 3.3 The licensing authority shall be informed immediately of any modifications or replacements of, or additions to an existing radio apparatus installed aboard an aircraft, in order that the licence may be suitably amended.
- 3.4 Aircraft Station Licences are issued by this address in respect of South African registered aircraft:

**ICASA
Private Bag X1
MARLBORO
2063**

These licences bear the name of the aircraft owner, aircraft type and registration marks allocated to the aircraft and details of the radio equipment. The licences are issued in duplicate and are not transferable.

- 3.5 When a radio equipped aircraft is disposed of, the previous owner must return the original and the duplicate copy of the Aircraft Station Licence to the issuing office and the new owner must apply for a licence in his/her own favour immediately.

Failure to do this shall constitute a contravention of the Radio Regulations.

4. OPERATION OF RADIO TRANSMITTING EQUIPMENT IN AIRCRAFT

4.1 *Part 61 of the S A Civil Aviation Regulation, 1997, as amended, requires that every person operating aircraft radio transmitting equipment in an aircraft must be in possession of a restricted radiotelephony operator's certificate. Certificate's of Proficiency are issued by the Director-Radio, Telecom Commercial, Pretoria.*

5. MAINTENANCE AND SERVICEABILITY OF RADIO EQUIPMENT

5.1 *The onus for ensuring that installed radio equipment is serviceable and airworthy rests with the registered owner of the aircraft. To this end he/she is to ensure that all transmitters and receivers operate satisfactorily on the designated frequencies at all times. For purposes of ensuring this the following checks or tests should be done on installation and at frequent intervals thereafter.*

5.1.1 Ground tests

5.1.1.1 *Ensure that the supply voltage for these tests is as near as possible to that which will be used during flight.*

5.1.1.2 *Test all transmitters on the frequencies authorised and with the aerials normally used during flight.*

5.1.1.3 *Test all items of equipment through the full range of frequencies available.*

5.1.1.4 *Where items of equipment are required to operate simultaneously, ensure that radio interference from any item is not at such a level as to impair the acceptable performance of other items.*

5.1.1.5 *Ensure that there is no excessive deviation in the magnetic compass indication with all radio equipment switched "ON" or when the most unfavourable combination of power loads is switched "ON" or "OFF".*

5.1.1.6 *Ensure that all controls, switches and levers are correctly marked and that all frequency controls, dials, etc., clearly and correctly indicate transmitting and receiving frequencies. Suitable calibration charts may be used.*

5.1.2 Flight Tests

5.1.2.1 *Test all transmitters at full power on the authorised frequencies.*

5.1.2.2 *Ensure that all communication receivers operate satisfactorily on all available frequencies and that there is no unacceptable interference from engine ignition and generator systems.*

5.1.2.3 *Check radio navigational aids by observation against known landmarks. Long range navigational aids should be checked on a number of different bearings and systems which require calibration or the application of corrections, should be checked against the data provided.*

6. "NOT IN USE" RADIO EQUIPMENT

6.1 *If the owner of radio equipment installed in an aircraft does not require the use of such equipment i.e. if the aircraft is not being flown, and does not wish to have it licensed, he must be in possession of a not-in-use permit as and he/she must have such radio equipment sealed to preclude its use and have it placarded "Unserviceable". These permits are issued free and must be renewed from time to time.*

COMMISSIONER FOR CIVIL AVIATION