GEN 3.4 COMMUNICATION SERVICES

1 Responsible service

The responsible Authority for the provision of telecommunication and navigation facility services in Zambia is the Zambia Airports Corporation Ltd.

The Managing Director
Kenneth Kaunda International Airport
Zambia Airports Corporation Limited
P.O. BOX 30175
LUSAKA 10101
Zambia

The service is provided in accordance with provisions contained in the following ICAO documents:-

- Annex 10 - Aeronautical Telecommunications
- Doc 8400 - Procedures for Air Navigations Services ICAO abbreviations and Codes (PANS -ABC)
- Doc 8585 - Designator for aircraft operating agencies, aeronautical authorities and services.
- Doc 7030 - Regional Supplementary Procedures.
- Doc 7910 - Location Indicators.

2 Area of responsibility

Communication services are provided for the entire Lusaka FIR. Arrangements for such services on a continuing basis should be made with the Director General, Zambia Civil Aviation Authority, who is also responsible for the application of regulations concerning the design, type and installation of aircraft radio stations.
Responsibility for the day-to-day operation of these services are vested in the Managing Director, Zambia Airports Corporation LTD, Kenneth Kaunda International Airport, P.O Box 30175 Lusaka. Inquiries, suggestions or complaints regarding any telecommunications service should be referred to the Director of Air Navigation Services, Zambia Airports Corporation Ltd or to the Director General Zambia Civil Aviation Authority.

3 Types of service

3.1 Radio Navigation Service

The following types of radio aids to navigation are available:

- LF/MF Non-directional Beacon (NDB)
- VHF Direction- Finding Station (VDF)
- Surveillance Approach Radar (SAR)
- Instrument Landing System (ILS)
- VHF Omnidirectional Radio Range (VOR)
- Distance Measuring Equipment (DME).

Selected radio broadcasting stations are included as additional navigational facilities. The information is limited to station with a power of 10KW or more. It should be noted that unserviceabilities of these stations will not be reported.
According to the judgement of the direction finding station, bearings are classified as follows:

- Class A - accurate within ± 2 Degrees
- Class B - accurate within ± 5 Degrees
- Class C - accurate within ± 10 Degrees

Direction finding stations have authority to refuse to give bearings or headings to steer when conditions are unsatisfactory or when bearings do not fall within the calibrated limits of the station stating the reason at the time of refusal.
VDF is not used as an approach aid in Zambia, but limited VDF assistance is available at controlled aerodromes (class B bearings). At some uncontrolled aerodromes, VDF is available for use in emergency only.

3.2 Mobile/Fixed Services

3.2.1 Mobile Service

The aeronautical stations maintain a continuous watch on their stated frequencies during the published hours of service unless otherwise notified.
An aircraft should normally communicate with an air-ground control radio station that exercises control in the area in which the aircraft is flying.
Aircraft should maintain a continuous watch on the appropriate frequency of the control station and should not abandon watch, except in an emergency, without informing the radio control station.

3.2.2 Fixed Service

The messages to be transmitted over the Aeronautical Fixed Service will be accepted only if they are in compliance with the following requirements:

a. ICAO Annex 10, Vol. II item 3.3

b. The messages shall be prepared in format as specified in ICAO Annex 10;

c. The length of an individual message does not exceed 1800 characters.

The transmission of teletype messages in the Aeronautical Telecommunication Service is performed by Aeronautical Telecommunication Stations at the international and provincial Airports.

3.3 Broadcasting Service

Sub-area Meteorological Broadcasts (VOLMET radio telepathy broadcasts) may be made available for the use of aircraft in flight.

3.4 Languages Used

English.

3.5 Where detailed information can be obtained

Details of the various facilities available for the en-route traffic can be found in part 2 ENR 4.
Details of the facilities available at the individual aerodromes can be found in the relevant sections of part 3 (AD). In cases where a facility is serving both en-route traffic and the aerodromes, details are given in the relevant section of part 2 (ENR) and part 3 (AD).

4 Requirements and conditions

The requirements of the Zambia Civil Aviation Authority and the general conditions under which the communication services are available for international use, as well as the requirements for the carriage of radio equipment , are contained in the Air Navigation (radio) Regulations of Zambia Aviation Act 5. of 2016.
The main provisions are briefly summarised below. Air Navigation (radio) Regulations part of Aviation Act 5. of 2016
Regulation-86 Types of Apparatus:
Modification and carriage of licenced operators.
Regulation 87 operation of aircraft stations.

4.1 RADIO TIME SIGNAL

Radio callsign	Transmitter station	Frequency	Emission	Hours of Operation	REMARKS Time signal
1	2	3	4	5	6
ZNBC RADIO 1	CHIPATA KABWE KASAMA KITWE LIVINGSTONE LUSAKA MANSA MONGU SOLWEZI	666 KHz 1224 KHz 567 KHz 1071 KHz 729 KHz 819 KHz 918 KHz 601 KHz 909 KHz	A2A/A2A	0300 – 2200 HOURLY	The main signal of letter ZNBC is transmitted from Lusaka in morse code and boosted from all booster stations. 2 dots, I dash of one second interval starting three seconds before every hour.