

GEN 3.2 AERONAUTICAL CHARTS

1 Responsible service

The Zambia Airports Corporation Limited provides Aeronautical Charts for all types of Civil Aviation users. The Aeronautical Information Service publishes the charts which are part of the AIP. All other aeronautical charts are produced by Zambia Airports in collaboration with the Department of Survey General. Charts suitable for pre-flight planning and briefing, selected from those listed in the Aeronautical Chart Manual Doc 8697, are available for reference at the aerodrome AIS unit. The charts are produced in accordance with provisions contained in ICAO Annex 4 Aeronautical Charts.

2 Maintenance of charts

The aeronautical charts included in the AIP are kept up to date by amendments to the AIP. Corrections to the aeronautical charts not contained in the AIP are promulgated by AIP amendments and are listed under 8 of this subsection. Information concerning the planning for or issuance of new maps and charts is notified by Aeronautical Information Circular.

If incorrect information detected on published charts is of operational significance, it is corrected by NOTAM.

3 Purchase arrangements

The charts listed under 3.2.4.1 of this subsection may be obtained from:

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Zambia

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Fax: 260 211 271469
ATS: FLKKYFYX /FLKKZPZX
Email: ais.lusaka@zacl.aero
website: www.zacl.co.zm .

4 Aeronautical Chart series available

4.1 The following series of Aeronautical charts are published

- a. World Aeronautical Charts – ICAO 1:1000,000
- b. Plotting Chart – ICAO
- c. Aerodrome/Heliport Chart – ICAO
- d. Aerodrome Ground Movement Chart -ICAO
- e. Aircraft Parking/Docking Charts – ICAO;
- f. Aerodrome Obstacle Chart- ICAO type A (for each runway)
- g. Aerodrome Obstacle Chart- ICAO type C;
- h. Precision Approach Terrain Chart – ICAO (Precision Approach cat I and II Runways)
- i. En-Route Chart – ICAO
- j. Area Chart – ICAO (arrival and transit routes);
- k. Area Chart – ICAO (departure and transit routes)
- l. Standard Departure Chart – Instrument (SID) ICAO;
- m. Standard Arrival Chart – Instrument Arrival (STAR) - ICAO
- n. Instrument Approach Chart – ICAO (for each runway and procedure type)
- o. Visual Approach Chart ICAO.

The charts currently available are listed under 3.2.5 of this section

4.2 General description of each series

- a. *World Aeronautical Chart – ICAO 1:1000 000*. This series is constructed on Lambert Conical Orthomorphic Projection up to 80° and Polar stereographic projection between 80°N and 90°N with scales matching at 80°N. The aeronautical data shown have been kept to a minimum, consistent with the use of the chart for visual air navigation. It includes a section of aerodromes, significant obstacles, elements of the ATS system, prohibited, restricted and danger areas, and radio navigation aids. The chart provides visual air navigation and is also used as a pre-flight planning chart.
- b. *Plotting Chart – ICAO*. This series covering the North Atlantic, Western Europe and North Africa, is designated for in-flight Long-Range Navigation and constructed on Mercators projection with simple outline of land areas at a scale of 1:5 000 000. Aeronautical data consists of major International Aerodromes, selected radio navigation Aids, lattices of long-range. Electronic Aids to Navigation FIR, CTA, CTR, reporting points, etc. The chart is designed to provide a means of maintaining a continuous record of the aircraft position.
- c. *Aerodrome/Heliport chart – ICAO*. This chart contains detailed Aerodrome/heliport data to provide flight crews with information that will facilitate the ground movement of aircraft:
 - i. -from the aircraft stand to the runway and
 - ii. -from the runway to the aircraft stand;
 - iii. and helicopter movement:
 - iv. -from the helicopter stand to the touch down and lift-off area and to the final approach and take –off area:
 - v. -from the final approach and take-off area to the touch down and lift-off area and to the helicopter stand:
 - vi. -along helicopter ground and air taxiways and
 - vii.-along air transit routes, it also provides essential operational information at the aerodrome/heliport.
- d. *Aerodrome Ground Movement Chart – ICAO*. This chart is produced for those aerodromes where, due to congestion of information, details necessary for the ground movement of aircraft along the taxiways to and from the aircraft stands and for the parking/docking of aircraft cannot be shown with sufficient clarity on the aerodrome/heliport chart – ICAO.
- e. *Aircraft Parking/Docking Chart – ICAO*. This chart is produced for those aerodromes where due to the complexity of the terminal facilities, the information to facilitate the ground movement of aircraft between the taxiways and the aircraft stands and parking/docking of aircraft cannot be shown with sufficient clarity on the aerodrome/heliport chart-ICAO or the aerodrome ground movement chart – ICAO.
- f. *Aerodrome Obstacle Chart – ICAO- Type A (operating limitations)*. This chart contains detailed information on obstacles in the take-off flight path areas of aerodromes. It is shown in plain and profile view. This obstacle information, in combination with an obstacle chart – ICAO-Type C, provides data necessary to enable an operator to comply with the operating limitations of ICAO Annex 6, parts I and II, Chapter 5.
- g. *Aerodrome Obstacle Chart – ICAO – Type C*. This chart contains obstacle data necessary to enable an operator to develop procedures to comply with the operating limitations of ICAO Annex 6, parts I and II, Chapter 5, with particular reference to information on obstacles that limit the maximum permissible take-off mass. This chart must provide certain obstacle data and type of graphical information covering a distance of 42 Km (24NM) from the aerodrome reference point. Appropriate topographical charts which are available for the area around the airports, if supplemented with “overprint” obstacle data and other significant aeronautical information should be suitable for use as the topographic base for the AOC –ICAO –Type C.
This chart is not produced if:
 - i. -the required obstacle data is included in the AIP
 - ii. -no significant obstacles exist, and this fact is included in the AIP.
- h. *Precision Approach Terrain Chart – ICAO*. This chart provides terrain profile information within a defined position of the final approach so as to enable aircraft operating agencies to assess the effect of the terrain on decision height determined by the use of Radio Altimeters. This chart is produced for all precision approach Cat I and II runways.
- i. *En-Route Chart – ICAO*. This is produced for the entire LUSAKA FIR. The aeronautical data include all aerodromes, prohibited, restricted and danger areas and the air traffic services system in detail. The chart provides the flight crew with information that will facilitate navigation along ATS routes in compliance with air traffic services procedures.
- j. *Area Chart – ICAO*. This chart is produced when the air traffic services routes or position reporting requirements are complex and cannot be shown on an En-route Chart — ICAO.

It shows, in more detail, those aerodromes that affect terminal routings, prohibited, restricted and danger areas and the air traffic services system. This chart provides the flight crew with information that will facilitate the following phases of instrument flight:

- i. -the transition between the en-route phase and the approach to an aerodrome;
 - ii. -the transition between the take-off/missed approach and the en-route phase
 - iii. of flight; and
 - iv. -flights through areas of complex ATS routes or airspace structure.
- k. *Standard Instrument Departure Chart - Instrument (SID)-ICAO.* - This chart is produced whenever a standard departure route — instrument has been established and cannot be shown with sufficient clarity on the Area Chart — ICAO. The aeronautical data shown include the aerodrome of departure, aerodrome(s) which affect the designated Standard Instrument Departure route instrument, prohibited, restricted and danger areas and the air traffic services system. This chart provides the flight crew with information that will enable them to comply with the designated standard departure route Instrument from the take-off phase to the en-route phase.
- l. *Standard Instrument Arrival Chart - Instrument (STAR) - ICAO.* - This chart is produced whenever a Standard Instrument Arrival route has been established and cannot be shown with sufficient clarity on the Area Chart — ICAO. The aeronautical data shown include the aerodrome of landing, aerodrome(s) which affect the designated standard Instrument arrival route — instrument, prohibited, restricted and danger areas and the air traffic services system. This chart provides the flight crew with information that will enable them to comply with the designated standard arrival route — instrument from the en-route phase to the approach phase.
- m. *Instrument Approach Chart - ICAO.* - This chart is produced for all aerodromes which have an approach. A separate Instrument Approach Chart — ICAO has been provided for each approach procedure. The aeronautical data shown include information on aerodromes, prohibited, restricted and danger areas, radio communication facilities and navigation aids, minimum sector altitude, procedure track portrayed in plan and profile view, aerodrome operating minima, etc. This chart provides the flight crew with information that will enable them to perform an approved instrument approach procedure to the runway of intended landing including the missed approach procedure and where applicable, associated holding patterns.
- n. *Visual Approach Chart - ICAO.* - This chart is produced for aerodromes used by civil aviation where:
- i. -only limited navigation facilities are available; or
 - ii. -radio communication facilities are not available; or
 - iii. -no adequate aeronautical charts of the aerodrome and its surroundings at 1:500 000 or greater scale are available; or
 - iv. -no visual approach procedures have been established
- The aeronautical data shown include information on aerodromes, obstacles, designated airspace, visual approach information, radio navigation aids and communication facilities, as appropriate.

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