FLHN AD 2.1 AERODROME LOCATION INDICATOR AND NAME

FLHN - HARRY MWAANGA NKUMBULA INTL

FLHN AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

1	*ARP coordinates and site at AD*	S 17°49'08.00" E 025°49'07.00" Nil
2	*Direction and distance from (city)*	N.W. 2.5 NM
3	*Elevation/Reference temperature*	Elev: 3255 FT (992 M) / T: 34.5° C
4	*Geoid undulation at AD ELEV PSN*	-
5	*MAG VAR/Annual change*	8° W (2007)
6	*AD Administration, address, telephone, telefax, telex, AFS*	Zambia Airports Corporation Limited Harry Mwaanga Nkumbula International Airport, PO Box 60199 Livingstone Zambia Tel: +260 977 790822 Tel: 260-213-321682 Tel: 260-213-321153 Tel: 260-213-323222 Tel: +260 965 860494 Fax: 260-213-324235 AFS: FLHNZPZX eMail: zaclliv@zacl.aero Website: www.zacl.co.zm
7	*Types of traffic permitted (IFR/VFR)*	IFR/VFR
8	*Remarks*	NIL

FLHN AD 2.3 OPERATIONAL HOURS

1	*AD Administration*	0500-1600 and O/R
2	*Customs and immigration*	0500-1600 and O/R
3	*Health and sanitation*	Available within AD hours
4	*AIS Briefing Office*	As AD Administration
5	*ATS Reporting Office (ARO)*	As AD Administration
6	*MET Briefing Office*	As AD Administration
7	*ATS*	As AD Administration
8	*Fuelling*	As AD Administration
9	*Handling*	As AD Administration
10	*Security*	As AD Administration
11	*De-icing*	As AD Adminstration
12	*Remarks*	Nil

FLHN AD 2.4 HANDLING SERVICES AND FACILITIES

1	*Cargo-handling facilities*	Nil
2	*Fuel/oil types*	Fuel : A1 , AVGAS Oil : Nil
3	*Fuelling facilities/capacity*	Jet A1 - 92,000Lts- 30,000Lts (fueller) Delivery rate: 800Lts per minute AVGAS - 28,000Lts Delivery rate: 140Lts per minute
4	*De-icing facilities*	NIL
5	*Hangar space for visiting aircraft*	Limited: Light aircraft only.
6	*Repair facilities for visiting aircraft*	NIL
7	*Remarks*	Nil

FLHN AD 2.5 PASSENGER FACILITIES

1	*Hotels*	In Town

2	*Restaurants*	At AD and in the city
3	*Transportation*	Taxis at AD and in town
4	*Medical facilities*	First aid at AD. Hospitals in town
5	*Bank and Post Office*	At AD and in the city
6	*Tourist Office*	Offices in Town Tel: 260-213-321405,320123,321487 E-mail: livingstone@zambiatourism.org.zm Website: www.zambiatourism.com
7	*Remarks*	Nil

FLHN AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

1	*AD category for fire fighting*	Within AD HR: CAT 7
2	*Rescue equipment*	YES; Two (2) fire tenders, 1 Ambulances, 15 trained personnel per shift per shift
3	*Capability for removal of disabled aircraft*	NIL
4	*Remarks*	Nil

FLHN AD 2.7 SEASONAL AVAILABILITY

1	*Types of clearing equipment*	Nil
2	*Clearance priorities*	Nil
3	*Remarks*	Nil

FLHN AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS DATA

1 *Designation, Surface and Strength of Aprons*

Designator	*Surface*	*Strength*
FLHN Apron	Concrete	PCN 52/R

2 *Designation, Width, Surface and Strength of Taxiways*

Designator of TWY	*Width*	*Surface*	*Strength*
Twy A	23 M	Bitumen	PCN 52/F
Twy B	23 M	Bitumen	PCN 52/F

3	*Altimeter checkpoint location and elevation*	Location : At Apron Elevation : 3232 FT
4	*VOR/INS checkpoints*	VOR: Holding Bay INS: Apron THR RWY 10/28
5	*Remarks*	Nil

FLHN AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

1	*Use of aircraft stand ID signs, TWY guide lines and visual docking/parking guidance system of aircraft stands*	Taxiing guidance signs at all intersections with TWY and RWY and at all holding positions. Day: Yellow centre line markings. Night : Blue OMNI directional edge lights guide lines at apron. Nose-in guidance at aircraft stands.
2	*RWY and TWY markings and LGT*	RWY: 10/28, THR Green TDZ, centre line, aiming point, RWY Side Strip, edge runway end low intensity OMNI directional white and day markings TWY : Blue edge lights TWY/RWY intersections, marked
3	*Stop bars*	Stop bars. white markings at all holding positions
4	*Remarks*	Nil

FLHN AD 2.10 AERODROME OBSTACLES

In approach/TKOF areas			
RWY/Area affected	*Obstacle type Elevation Markings/LGT*	*Coordinates*	*Remarks*
a	b	c	d
28/TKOF	Mast Elev: 3452 FT (1052 M)	S 17°48'10.80" E 025°51'24.00"	All obstructions outside approach And take-off areas are provided with day markings and obstruction lights.
28/TKOF	Mast Elev: 3485 FT (1062 M)	S 17°49'04.30" E 025°51'27.70"	All obstructions outside approach And take-off areas are provided with day markings and obstruction lights.
33/TKOF	Mast Elev: 3452 FT (1052 M)	S 17°48'10.80" E 025°51'24.00"	All obstructions outside approach And take-off areas are provided with day markings and obstruction lights.
33/TKOF	Mast Elev: 3485 FT (1062 M)	S 17°49'04.30" E 025°51'27.70"	All obstructions outside approach And take-off areas are provided with day markings and obstruction lights.

In circling area and at AD		
Obstacle type Elevation Markings/LGT	*Coordinates*	*Remarks*
a	b	c
NOTE: Nil		

FLHN AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

1	*Associated MET Office*	Harry Mwaanga Nkumbula
2	*Hours of service* *MET Office outside hours*	0500-1600 or on request
3	*Office responsible for TAF preparation* *Period of validity*	Harry Mwaanga Nkumbula 9, 18 HR
4	*Trend forecast* *Interval of issuance*	METAR TREND 2HR, SPECI as required
5	*Briefing/consultation provided*	Personal briefing and consultation
6	*Flight documentation* *Language(s) used*	Charts, abbreviated plain language text English
7	*Charts and other information available for briefing or consultation*	Cross section form of forecasts, charts and tables forms of documentation for both international and domestic flights

8	*Supplementary equipment available for providing information*	Nil
9	*ATS units provided with information*	FLHN MET Briefing Office
10	*Additional information (limitation of service, etc.)*	Nil

FLHN AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

Designations RWY	*TRUE & MAG BRG*	*Dimension of RWY (M)*	*Strength (PCN) and surface of RWY and SWY*	*THR coordinates*	*THR elevation and highest elevation of TDZ of precision APP RWY*
1	2	3	4	5	6
10	094°(True) 102°(Mag)	2987 x 46	PCN 52/F Bitumen SWY: Nil	S 17°49'13.48" E 025°48'10.89" GUND: Nil	THR 3253.7073 FT (992 M)
28	274°(True) 282°(Mag)	2987 x 46	PCN 52/F Bitumen SWY: Nil	S 17°49'20.26" E 025°49'52.08" GUND: Nil	THR 3236.6634 FT (987 M)
15	139°(True) 147°(Mag)	1373 x 30	AUW 20500 KG Grass Note: Max tyre Pres. 7.73Kg/cm sq SWY: Nil	S 17°48'46.16" E 025°48'52.49" GUND: Nil	THR 3287.21 FT (1002 M)
33	319°(True) 327°(Mag)	1373 x 30	AUW 20500 KG Grass Note: Max tyre Pres. 7.73Kg/cm sq SWY: Nil	S 17°49'16.18" E 025°49'19.72" GUND: Nil	THR 3275.12 FT (998 M)

Slope OF RWY and SWY	*SWY dimensions (M)*	*CWY dimensions (M)*	*Strip dimensions (M)*	*RESA dimensions (M)*	*RAG*	*OFZ*
7	8	9	10	11	12	13
For Rwy 10: +1.2%	Nil	360 x 150	3107 x 280	Nil	Nil	Nil
For Rwy 28: +1.2%	60 x 45	240 x 150	3107 x 280	Nil	Nil	Nil
For Rwy 15: Nil	91 x 30	Nil	1732 x 152	Nil	Nil	Nil
For Rwy 33: Nil	0 x 30	Nil	1732 x 152	Nil	Nil	Nil

Designations RWY	*Remarks*
1	14
10	NIL
28	NIL
15	NIL THR DISP by 75M
33	NIL

FLHN AD 2.13 DECLARED DISTANCES

RWY Designator	*TORA (M)*	*TODA (M)*	*ASDA (M)*	*LDA (M)*	*Remarks*
1	2	3	4	5	6
10	2987	3347	2987	2987	
15	1373	1464	1464	1373	
28	2987	3227	3047	2987	
33	1373	1373	1373	1373	

FLHN AD 2.14 APPROACH AND RUNWAY LIGHTING

RWY Desig-nator	*APCH LGT type LEN INTST*	*THR LGT colour WBAR*	*VASIS (MEHT) PAPI*	*TDZ, LGT LEN*	*RWY Centre Line LGT Length, spacing, colour, INTST*	*RWY edge LGT LEN, spacing colour INTST*	*RWY End LGT colour WBAR*	*SWY LGT LEN (M) colour*	*Remarks*
1	2	3	4	5	6	7	8	9	10
10	UEL high in-tensity lights 371 M	Green high in-tensity lights	PAPI 3°	Nil	Nil	50 M White high inten-sity lights	Red high inten-sity lights	Nil	Nil
28	UEL high in-tensity lights 390 M	Green high in-tensity lights	PAPI 3°	Nil	Nil	50 M White high inten-sity lights	Red high inten-sity lights	Nil	Nil
15	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
33	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil

FLHN AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

1	*ABN/IBN location, characteristics and hours of operation*	ABN :
2	*LDI location and LGT Anemometer location and LGT*	LDI: Nil Anemometer: Nil
3	*TWY edge and centre line lighting*	Taxiway Edge: Twy B - Blue Taxiway Edge: Twy A - Blue
4	*Secondary power supply/switch-over time*	15 seconds
5	*Remarks*	Nil

FLHN AD 2.16 HELICOPTER LANDING AREA

As guided by ATC

FLHN AD 2.17 ATS AIRSPACE

1	*Designation and lateral limits*	LIVINGSTONE CTR Area bounded by lines joining points S 17°51'36" E 025°30'36" then along the clockwise arc of a circle of 18NM radius centred on S 17°48'44" E 025°49'12" to S 17°56'30" E 026°06'15"; S 17°58'05" E 026°05'23" then along Zimbabwe/Zambia border up to S 17°51'46" E 025°30'39" to point of origin.
2	*Vertical limits*	GND to FL65
3	*Airspace classification*	C
4	*ATS unit call sign Language(s)*	Livingstone Approach, English Livingstone Tower, English
5	*Transition altitude*	5000 FT (1524 M)
6	*Hours of applicability*	0600-1500

7	*Remarks*	Nil

FLHN AD 2.18 ATS COMMUNICATION FACILITIES

Service designation	*Call sign*	*Frequency*	*Hours of operation*	*SATVOICE*	*Logon address*	*Remarks*
1	**2**	**3**	**4**	**5**	**6**	**7**
Approach Control	Livingstone Approach	124.3 MHZ	0500-1600	Nil	Nil	
Fuelling	Air Puma	131.7 MHZ	0500- 1600	Nil	Nil	
Emergency	Emergency	121.5 MHZ	0500-1600	Nil	Nil	Emergency
Approach Radar Control	Livingstone Radar Approach	124.4 MHZ	0500-1600	Nil	Nil	
Tower Control	Livingstone Tower	118.1 MHZ	0500-1600	Nil	Nil	VDF available in approach

FLHN AD 2.19 RADIO NAVIGATION AND LANDING AIDS

Type of aid MAG VAR CAT of ILS/MLS	*ID*	*Frequency*	*Hours of operation*	*Site of transmitting antenna coordinates*	*Elevation of DME transmitting antenna*	*Remarks*
1	***2***	***3***	***4***	***5***	***6***	***7***
NDB (07° W)	LZ	308.00 KHZ	H24	S 17°49'11.43" E 025°47'40.09"	—	Power output 125w Coverage 60NM
VOR/DME (07° W)	VLI	112.50 MHZ (CH72X)	H24	S 17°48'45.37" E 025°49'12.07"	3297 FT	co-axially co-located with DME

FLHN AD 2.20 LOCAL AERODROME REGULATIONS

FLHN AD 2.20.1 Airport Regulations

At Harry Mwaanga Nkumbula International Airport a number of local traffic regulations apply.
The regulations are listed below:

a. Information about aircraft stands including visual docking guidance systems;

b. Information about taxiing from aircraft stands including taxi clearance;

c. Marsheller assistance and towing assistance;

d. Use of engine power exceeding idle power;

e. Engine start-up and use of APU;

f. Fuel spillage; and

g. Precautions during extreme weather conditions.

Marsheller assistance can be requested and further information about the regulations can be obtained from the Airport Manager or Surface Movement Control (SMC).
When a local regulation is of importance for the safe operation of aircraft on the apron, the information may be given by SMC or Tower.
“Local regulations” may be requested , in writing form :

The Airport Manager
Harry Mwaanga Nkumbula International Airport
P’O Box 60199
Livingstone
Zambia
Email: zaclliv@zacl.aero

FLHN AD 2.20.2 Taxiing to and from stands

Departing IFR flights shall contact Tower to obtain ATC clearance before commencing taxiing. Request for ATC clearance may take place at the earliest 10 minutes prior to engine start-up. Frequency 118.100MHz shall be used during aerodrome hours of operations. Departing aircraft shall obtain departure clearance and taxi instruction from NkumbulaTower.

FLHN AD 2.20.3 Parking Area for small aircraft (General Aviation)

General Aviation aircraft will have to use the General parking area.

FLHN AD 2.20.4 Parking area for helicopters

Helicopters parking on the apron will be guided by marsheller or Tower.

FLHN AD 2.20.5 Apron-taxiing during winter conditions

Not applicable.

FLHN AD 2.20.6 Taxiing limitations

Nil

FLHN AD 2.20.7 School and training flights –technical test flights – use of runway

School and training flights must only be made after permission has been obtained from ATS.. Permission will only be granted for such flights subject to departing and arriving traffic.

FLHN AD 2.20.8 Helicopter traffic – limitation

Non-scheduled public air traffic with helicopters is permitted only after prior approval from Livingstone ATSU. Any contact concerning the above shall be made via the handling or directly to the Aerodrome Reporting Office during the hours of service and if possible not later than the day before it is to be carried out
Any request for approval of traffic shall contain the following information:

a. Owner/operator

b. Type of helicopter, registration/call sign

c. Date, arrival time/departure time, destination (s)

d. Requested flight altitude

e. ATS route to be flown

f. ATS serviceable communications equipment

FLHN AD 2.20.9 Removal of disabled aircraft from runways

When aircraft is disabled on the runway, it is the duty of the owner or user of such aircraft to have it removed as soon as possible after prior approval from Director General of Civil Aviation Authority. If a disabled aircraft is not removed from the runway as quickly as possible by the owner or user , the aircraft will be removed by the aerodrome authority at the owner's or user's expense.

FLHN AD 2.21 NOISE ABATEMENT PROCEDURES

To be developed.

FLHN AD 2.22 FLIGHT PROCEDURES

FLHN AD 2.22.1 General

All flights within Lusaka FIR at or below FL150 within and outside controlled airspace shall be operated in accordance with instrument/visual flight rules. Flights above FL150 within and outside controlled airspace shall be operated in accordance with instrument flight rules only.

FLHN AD 2.22.2 Procedures for IFR flight within Livingstone TMA and CTR

The inbound, transit and outbound routes shown on the charts may be varied at the discretion of ATS. If necessary, in case of congestion, inbound aircraft may also be instructed to hold at one of the designated airways, reporting points.

FLHN AD 2.22.3 Missed approach

Missed approach procedures to be followed in the absence of other ATS instructions are as detailed on the Instrument Approach Chart.

FLHN AD 2.22.4 Communication failure

In the event of communication failure, the pilot shall act in accordance with the communication failure procedures in ICAO Annex 2.

FLHN AD 2.22.5 Procedures for VFR flights within Livingstone CTA and CTR

Provided traffic and weather conditions so permit, ATC clearance for VFR flights will be given under the conditions described below

a. A flight plan . Containing items 7 to 18 and shall be submitted.

b. ATC clearance shall be obtained 5 minutes before the aircraft enters the Control Zone or Control Area.

c. Position reports shall be submitted in accordance with 3.6.3 of ICAO Annex 2.

d. Deviation from the ATC clearance may only be made when prior permission has been obtained or under emmergency situation

e. The flight shall be conducted with vertical visual reference to the ground unless the flight can be conducted in accordance with the Instrument Flight Rules.

f. Two-way radio communication shall be maintained on the frequency prescribed. Information about the appropriate frequency can be obtained from Livingstone Approach.

g. The pilot-in-command shall be the holder of an International VHF Licence.

NOTE: ATC clearance is intended only to provide separation between IFR and VFR flights

FLHN AD 2.22.6 Radar procedures within TMA

Radar vectoring in TMA shall be carried out by ATC unit providing direct control over aircraft movement.

Note: radar vectoring charts are not published.

FLHN AD 2.22.7 Surveillance radar approaches

SRA procedures are not applied.

FLHN AD 2.22.8 Precision radar approach

PAR approach procedures are not applied.

FLHN AD 2.23 ADDITIONAL INFORMATION

FLHN AD 2.23.1 Bird concentration in the vicinity of the airport

Harry Mwaanga Nkumbula International Airport is located in Mosi-oa-tunya National Park which is a wildlife habitat for birds and animals, bird migration usually occurs during the wet season between late October – April when migrants are at the aerodrome and many birds are in breeding plumage. Intense activity of flocks of Abdim's stork may take place from approximately November to March especially in the morning and late afternoon. As far as practicable aerodrome control will inform pilots of this bird activity and the heights AGL. During the above periods, pilots of aircraft are advised, where the design limitations of aircraft installations permit, to operate landing lights in flight within the terminal area and during take-off, approach to land and climb and descend procedures. The aircraft engine noise is not always effective in the clearing of the Birds from the landing area. Pilots should exercise extreme caution. Prominent birds around the airport are as tabulated below. Prominent birds around the airport are as tabulated below.

SPECIES	STATUS
Lark	Resident
Barn swallow	Migrant
Pied crow	Resident
African green pigeon	Resident
Black bellied bustard	Resident
White heron	Resident
Black headed heron	Migrant
Marabou stork	Migrant
Cattle egret	Migrant
Stork	Migrant
Hammerkop	Resident
Brown snake eagle	Possible migrant
African fish eagle	Resident
African Red winged starling	Resident
Coqui Francolin	Resident

FLHN AD 2.23.2 Local flying restrictions

The following procedures for the avoidance for the falls viewing area shall apply to aircraft:

a. Traffic from the south into Livingstone via overhead the falls viewing area shall maintain FL070 until overhead the VLI for the left downwind RWY10 or right downwind for RYW 28.

b. Taffic from the south wishing to join right downwind RWY 10 or left downwind RWY 28 shall maintain FL070 until established on final

c. VFR traffic to Victoria Falls International airport shall route east of Livingstone town when RWY 10 is in use or route west of Victoria Falls town when RWY 28 is in use

d. VFR traffic to Kasane via overhead the falls viewing area shall be cleared to 6000ft and after viewing the falls shall descend to 4500ft after 10NM from the bridge.

e. Only aircraft equipped with serviceable VHF radio are accepted at Harry Mwaanga Nkumbula aerodrome, unless under special circumstances.Right-hand circuit for Runway 28 and left-hand circuit for Runway 10.

FLHN AD 2.24 CHARTS RELATED TO AN AERODROME