AD 2. AERODROMES

FYWB AD 2.1 AERODROME LOCATION INDICATOR AND NAME

FYWB - Walvis Bay Airport

FYWB AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

1.	*ARP co-ordinates and site at AD*	225848S 0143843E 07° / 1500 M from THR09
2.	*Direction and distance from (city)*	270° East, 9 NM from Walvis Bay
3.	*Elevation/reference temperature*	299 FT / 25°C
4.	*Geoid undulation at AD ELEV PSN*	97 FT
5.	*MAG VAR/annual change*	13° W (2019)/ 0.12° decreasing
6.	*Name of aerodrome operator, address, telephone, telefax numbers, e-mail address, AFS address and, if available, website address*	Namibia Airports Company Limited Walvis Bay International Airport Walvis Bay Tel: +264 64 271100 Telefax: +264 64 200164 Cell: +264 81 163 5038 Email : wvboperations@airports.com.na Website: www.airports.com.na ATC Tel: +264 64 702690/1 Fax: +264 64 702699 AFS: FYWBYDYX
7.	*Types of traffic permitted (IFR/VFR)*	IFR/VFR
8.	*Remarks*	NIL

FYWB AD 2.3 OPERATIONAL HOURS

1.	*AD Operator*	MON-FRI: 0700 – 1500 SAT, SUN & PUB HOL 0800-1500
2.	*Customs and immigration*	MON-FRI 0900-1500 SAT, SUN & PUB HOL 0800-1500
3.	*Health and sanitation*	Available within AD Hours. 2 HR PN to AD required
4.	*AIS briefing office*	NIL
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*	24 HR
11.	*De-icing*	NIL

12.	*Remarks*	Outside AD HR, services are available O/R. Request to be submitted to the AD not later than 1300 (1100) UTC.

FYWB AD 2.4 HANDLING SERVICES AND FACILITIES

1.	*Cargo-handling facilities*	Hydraulic staircases, forklift 3 ton, air starter unit, 5 ton high loader, tractor, 5 ton scale, hangar parking, baggage trolleys cargo trailers, GPU, toilet services, vehicle (bakkie) & aircraft cleaning.
2.	*Fuel/oil types*	JETA1 and AVGAS 100LL
3.	*Fuelling facilities/capacity*	1 x jet A1 refuelling truck – 18 000 L 1 x Jet A1 refuelling truck – 11 000 L 1 x AVGAS refuelling truck – 3 000 L
4.	*De-icing facilities*	NIL
5.	*Hangar space for visiting aircraft*	Limited by prior arrangement only.
6.	*Repair facilities for visiting aircraft*	NIL
7.	*Remarks*	Handling services available within AD HR or by arrangement with the AD. Walvis Bay Airport Services (WBAS) Tel: +264 64 2012180 Telefax: +264 64 204878 Mobile: +264 81 1505271, +264 81 1282437 & +264 81 1438939 After hours: +264 81 1282437, +264 81 1505271 Email: contact@wbas.com.na Southern Energy Company Walvis Bay Airport Tel: +264 64 203951 Airport Fax: +264 64 203984 Operator's Office: +264 64 207623 Standby cell-phone: +264 81 1502489 Controlling Office Fax: +264 64 204194 After Hours/Cell: +264 81 1502493 / +264 81 1502507 Email: fuel@sec.com.na

FYWB AD 2.5 PASSENGER FACILITIES

1.	*Hotels*	Near the AD and in the city
2.	*Restaurants*	At AD and in the city
3.	*Transportation*	Taxis and car hire from the AD
4.	*Medical facilities*	First aid at AD. Hospital in the city
5.	*Bank and post office*	In the city
6.	*Tourist office*	Office in the city. Tel: Walvis Bay +264 64 207444 Email: bookings@walvisbaytourism.com
7.	*Remarks*	AD website: www.airports.com.na

FYWB AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

1.	*AD category for fire fighting*	Within AD HR: CAT 6
2.	*Rescue equipment*	Yes, 2 x Rescue Vehicles R1 – 11 000 Litres water / 1320 Litres foam / 250 kg DCP R2 – 12 500 Litres water / 1500 Litres foam / 250 kg DCP
3.	*Capability for removal of disabled aircraft*	Lifting bags and hydraulic jacks available
4.	*Remarks*	Outside AD HR, firefighting service to be requested. Request to be submitted not later than 1300 (1100UTC).

FYWB AD 2.7 SEASONAL AVAILABILITY - CLEARING

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

FYWB AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS/POSITIONS DATA

1.	*Apron designation, surface and strength*	Passenger Apron, Asphalt, PCN 19/F/B/W/U Cargo Apron, Concrete, PCN 109/F/A/W/T & Asphalt PCN130/F/A/W/T
2.	*Taxiway designation, width, surface and strength*	TWY A, 2200 M, Asphalt, PCN 19/F/B/W/U TWY B, 216 M, Asphalt, PCN 130/F/A/W/T TWY C, 216 M, Asphalt, PCN 19/F/B/W/U

3.	*Altimeter checkpoint location and elevation*	Location: At Apron Elevation: 91 M
4.	*VHF Omni-directional Radio Range (VOR) checkpoints*	Holding position Bravo of Runway 09/27
5.	*INS checkpoints*	NIL
6.	*Remarks*	Refer to AD 2.20 Local Traffic Regulations 5. Taxi Limitations

FYWB 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*	Nil facilities Parking of ACFT as per ARFF Marshaller
2.	*RWY and TWY markings and LGT*	RWY: Designation, THR, TDZ, centre line, edge runway end as appropriate, marked, and lighted. TWY: Centre Line
3.	*Stop bars*	Stop Bar on main intersection from main taxiway to cargo apron. Stop Bar on main intersection from RWY 27 to main taxiway. Stop Bar on main intersection from RWY 09 to main taxiway.
4.	*Other runway protection measures*	Guard Light is on the same line as the stop bar, on the side. Guard Light located on main intersection from main taxiway to cargo apron. Guard Light on main intersection from RWY 27 to main taxiway. Guard Light on main intersection from RWY 09 to main taxiway.
5.	*Remarks*	Refer to AD 2.20 Local Traffic Regulations 5. Taxi Limitations

FYWB AD 2.10 AERODROME OBSTACLES

In Area 1					
OBST ID/ Designation	*OBST Type*	*OBST position*	*ELEV/HGT*	*Markings / Type, Colour, Lighting (LGT)*	*Remarks*
a	**b**	**c**	**d**	**e**	**f**
Mountain	Mountain	225820.12S 0144017.71E	368FT	NIL	09/TKOF 27/APCH

In Area 2					
OBST ID/ Designation	OBST Type	OBST position	ELEV/HGT	Markings / Type, Colour, Lighting (LGT)	Remarks
a	b	c	d	e	f
ROOI RES	RESERVOIR	225850.47S 143937.36E	117/38 M	Marked	NIL
VOR WBV	NAV Aid	225855.59S 143840.48E	90/1 M	Marked/LGT	
ARB C	NAV Aid	225851.32S 143847.51E	95/3 M	Marked/LGT	NIL
GP Container	NAV Aid	225835.90S 143937.11E	95/3 M	Marked/LGT	NIL
GP27 Mon Pole	Glide Path 27	225834.77S 143940.80E	89/6 M	Marked/ LGT	NIL
MET Station Mid	NAV Aid	225855.70S 143828.48E	81/10 M	Marked	NIL
MET Station 09	NAV Aid	225904.17S 143800.02E	73/10 M	Marked	NIL
MET Station 27	NAV Aid	225835.94S 143935.09E	94/10 M	Marked	NIL
Wind Sensor OLD	NAV Aid	225852.38S 143844.81E	83/10 M	Marked	NIL
Wind Sensor 09	NAV Aid	225903.14S 143803.63E	74/3 M	Marked	NIL
Wind Sensor 27	NAV Aid	225835.94S 143935.09E	95/10 M	Marked	NIL
Wind Sensor 27_A	NAV Aid	225836.81S 143932.10E	97/3 M	Marked	NIL
LOC09 Monitor	NAV Aid	225904.18S 143748.75E	72/1 M	Marked/LGT	NIL
Sub27	NAV Aid	225837.06S 143937.51E	95/3 M	Marked	NIL
Military TWR_E	Pole	225852.31S 143920.76E	90/31 M	Marked	NIL
Military TWR_W	Pole	225850.35S 143922.62E	91/31 M	Marked	NIL
HI GRND2	TERRAIN	225830.51S 144035.10E	116/8 M	Nil	NIL
Windsock_ Mid	NAV Aid	225852.15S 143850.76E	85/8 M	Marked/LGT	NIL
Windsock27	NAV Aid	225934.42S 143945.00E	88/8 M	Marked	NIL

In Area 3					
OBST ID/ Designation	*OBST Type*	*OBST position*	*ELEV/HGT*	*Markings / Type, Colour, Lighting (LGT)*	*Remarks*
a	b	c	d	e	f
NIL					

FYWB AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

1.	*Associated Met office*	Windhoek
2.	*Hours of service* *MET office outside hours*	MON-FRI: 0330 – 1830 SAT-SUN: 0330 – 1230 SAT-SUN: 1730 – 1830 (one reading is taken between these times) 2 HR
3.	*Office responsible for TAF preparation* *Periods of validity*	Windhoek 6 HR
4.	*Type of landing forecast* *Interval of issuance*	NIL
5.	*Briefing/consultation provided*	Personal Consultation
6.	*Flight documentation* *Language(s) used*	Charts, abbreviated plain language text English
7.	*Charts and other information available for briefing or consultation*	S3, U85, U7, U5, U2, P5
8.	*Supplementary equipment available for providing information*	NIL supplementary equipment
9.	*ATS units provided with information*	Windhoek FIC
10.	*Additional information (limitation of service, etc.)*	NIL

FYWB AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

Designations RWY NR	*TRUE BRG*	*Dimensions of RWY (M)*	*Strength (PCN) and surface of RWY and SWY*	*THR coordinates RWY end coordinates THR geoid undulation*	*THR Elevation and highest elevation of TDZ of precision APPRWY*
1	2	3	4	5	6
09	071.97°	3 440 x 60	109/R/A/W/T Asphalt	225903.14S 0143752.23E GUND 29M 96.8 FT	THR 72 M/236 FT
27	251.97°	3 440 x 60	109/R/A/W/T Asphalt	225828.55S 0143947.08E GUND 29M 96.8 FT	THR 96M/315 FT

Designations RWY NR	*Slope of RWY-SWY*	*SWY dimensions (M)*	*CWY dimensions (M)*	*Strip dimensions (M)*	*Dimensions of runway end safety areas*
1	7	8	9	10	11
09	NIL INFO AVBL	NIL	NIL	3 560 x 150	NIL INFO AVBL
27	NIL INFO AVBL	NIL	NIL	NIL INFO AVBL	NIL INFO AVBL

Designations RWY NR	*Location and description of arresting system*	*OFZ*	*Remarks*
1	12	13	14
09	NIL	NIL	NIL
27	NIL	NIL	NIL

FYWB AD 2.13 DECLARED DISTANCES

RWY Designator	*TORA (M)*	*TODA(M)*	*ASDA (M)*	*LDA (M)*	*Remarks*
1	**2**	**3**	**4**	**5**	**6**
09	3440	3440	3440	3440	NIL
27	3440	3440	3440	3440	NIL

FYWB AD 2.14 APPROACH AND RUNWAY LIGHTING

RWY Designator	*APCH LGT type LEN INTST*	*THR LGT colour WBAR*	*VASIS (MEHT) PAPI*	*TDZ, LGT, LEN*	*RWY Centre line LGT length, spacing, colour, INTST*
1	2	3	4	5	6
09	900 M	Green	PAPI, Left/3° (30FT)	NIL	3390 M, 15 M, white middle and red end
27	900 M LIH	Green	PAPI, Left/ 3° (69FT)	875 M	3390 M, 15 M, white middle and red end

RWY Designator	*RWY edge LGT LEN, spacing colour INTST*	*RWY End LGT colour WBAR*	*SWY LGT LEN (M) colour*	*Remarks*
1	7	8	9	10
09	3360 M, 60 M, white, LIH	Red	40M Yellow and red	Non-precision APP
27	3360 M, 60 M, white, LIH	Red	40M Yellow and red	Non-precision APP

FYWB AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

1.	*ABN/IBN location, characteristics, and hours of operation*	ABN: Abeam Centre RWY, FLG W G EV 2 SEC/ IBN: NIL
2.	*LDI location and LGT* *Anemometer location and LGT*	LDI: NIL Anemometer: AMS E 320 M from THR 27, lighted AMS C 1000 M from THR 09, lighted AMS W 200 M from THR09, lighted
3.	*TWY edge lights, centre line lights and stop bars (if any)*	TWY edge lights are only available at intersection “C”

4.	Secondary power supply/switch-over time	Secondary power supply to all lighting at AD Switch over time: 7 SEC
5.	Remarks	2X 400 KVA Cummins power generator sets

FYWB AD 2.16 HELICOPTER LANDING AREA

1	Coordinates TLOF or THR of FATO Geoid undulation	NIL
2	TLOF and/or FATO elevation M/FT	NIL
3	TLOF and FATO area dimensions, surface, strength, marking	NIL
4	True BRG of FATO	NIL
5	Declared distance available	NIL
6	APP and FATO lighting	NIL
7	Remarks	NIL

FYWB AD 2.17 ATS AIRSPACE

1.	Designation and lateral limits	Walvis Bay CTR Lateral limits 225100.61S 0144701.68E – Clockwise along the arc of a circle, radius 10NM centred at 225828.55S 0143947.08E – 230414.63S 0144839.60E – 230833.04S 0143421.75E – clockwise along the arc of a circle, radius 10NM centred at 225903.14S 0143752.23E – 225657.72S 0142716.09E to point of origin.
2.	Vertical limits	GND/2500FT AMSL
3.	Airspace classification	C
4.	ATS unit call sign Language(s)	Walvis Bay Tower English
5.	Transition altitude	10 000 FT MSL
6.	Remarks	1. Speed restrictions apply in FYWB TMA. Refer FYWB AD 2.22 Flight procedures. 2. Use FYWB QNH within the lateral confines of FYWB TMA at and below 10000FT AMSL. Refer ENR 2.1-6 Note 2. 3. All traffic operating in Class G airspace within the lateral confines of the FYWB TMA, must contact Walvis Bay Approach on 122.5MHz for Flight Information Service.

FYWB AD 2.18 ATS COMMUNICATION FACILITIES

Service designation	*Call sign*	*Frequency*	*Hours of operation*	*Remarks*
1	**2**	**3**	**4**	**5**
Tower/APP	Walvis Bay Tower	122.5 MHz	MON - FRI: 0700 – 1500 SAT – SUN & PUB HOL: 0800 – 1500	Combined service for Tower, Approach and Flight Information All times UTC
ATIS	Walvis Bay ATIS	127.0 MHz	H24	Fully operational 50NM radius around airport on this FREQ 127.0 MHz or TEL +264 81 3323509

FYWB AD 2.19 RADIO NAVIGATION AND LANDING AIDS

Type of aid, CAT of ILS/MLS (for VOR/ILS/ MLS give VAR)	*ID*	*Frequency*	*Hours of Operation*	*Position of transmitting antenna co-ordinates*	*Elevation of DME transmitting antenna*	*Remarks*
1	**2**	**3**	**4**	**5**	**6**	**7**
VOR/DME (13°W/2016)	WBV	113.6 MHz CH 83X	H24	225855.59S 0143840.48E	299 FT	Nil
LOC 27 (13°W/2016) ILS CAT I (13°W or 265°)	WBI	109.3 MHz	H24	225905.09S 0143745.74E	223 FT	Nil
GP 27		332.0 MHz	H24	225835.82S 0143937.28E	311 FT	3°, RDH 50FT
RNP APCH	N/A	1575.42MHz	H24	N/A	N/A	Transmitting antennas are satellite based

FYWB AD 2.20 LOCAL TRAFFIC REGULATIONS

1. Airport regulations

At Walvis Bay International Airport, a number of local regulations apply. The regulations are collected in a manual which is available at the Terminal Building. This manual includes, among other subjects, the following:

a) The meaning of airside markings and signs;
b) Information about aircraft parking positions;
c) Information about taxiing from aircraft parking positions including taxi clearance;
d) Marshaller assistance;
e) Fuel spillage; and
f) Precautions during extreme weather conditions

Marshaller assistance can be requested and further information about the regulations can be obtained from the TWR or Apron Management unit.

Once the aircraft enters the apron, ATC will instruct the Pilot to follow the directions of the Aircraft Marshallers to an allocated parking position.

Access to the passenger apron and hangar parking is only permitted by the Airport Manager prior to its use.

When a local regulation is of importance for the safe operation of aircraft on the apron, the information will be given to each aircraft by the TWR or apron management services.

“Local Regulations” may be requested, in writing, from:

Walvis Bay International Airport

Safety Office

2. Taxiing to and from stands

Once aircrafts enter the apron, ATC will instruct the Pilot to follow the directions of the Aircraft Marshallers to a allocated parking position.

Departing IFR flights shall contact the TWR 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 122.5 MHz is to be used in the period 0600 – 1500.

3. Parking area for small aircraft (general aviation)

General aviation aircraft shall be guided by marshallers to the parking area for small aircraft.

4. Parking area for helicopters

Once helicopters enter the apron, ATC will instruct the Pilot to follow the directions of the Aircraft Marshallers to an allocated parking position.

5. Apron – taxiing during winter conditions

NIL limits.

6. Taxiing – limitations

The separation distance between the runway and parallel taxiway does not allow simultaneous movement of landing and taxiing aircraft.

Taxiway Delta and Echo are closed permanently.

Standard taxiway routes exist for all aircraft above Code B via Taxiway Alpha 4 and onto Taxiway Bravo.

Passenger apron via Taxiway Charlie, adjacent to the passenger terminal building, is closed to traffic subjected to prior approval from Airport Manager.

7. School and training flights - Technical test flights - Use of runways

NIL facilities.

8. Helicopter traffic - Limitation

NIL limits.

9. Removal of disabled aircraft from runways

NIL facilities**.**

FYWB AD 2.21 NOISE ABATEMENT PROCEDURES

Nil procedures.

FYWB AD 2.22 FLIGHT PROCEDURES

Radio Communication Failure
a) Aircraft to join overhead the Aerodrome at 2000 feet AGL
b) Observe and join the Aerodrome TFC
c) Make all turns to the left whenever possible
d) Land as soon as possible and report to the ATC

Speed Restriction:

Speed restrictions within Walvis Bay TMA for arriving and departing aircraft, MAX IAS 250KT restriction applies at and below A100. Speed is mandatory and must be complied with. ATC may vary the speeds for traffic management purposes.

FYWB AD 2.23 ADDITIONAL INFORMATION

Model flying activities taking place on weekends 5NM southwest of FYWB at position 230237S 0143515E.

Paragliding activities in dunes near Lang strand throughout the year.

FYWB AD 2.24 CHARTS RELATED TO WALVIS BAY

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Aerodrome Chart – ICAO (Reserved)

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Area Chart – ICAO (Reserved)

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Instrument Approach Chart – ICAO (Reserved)

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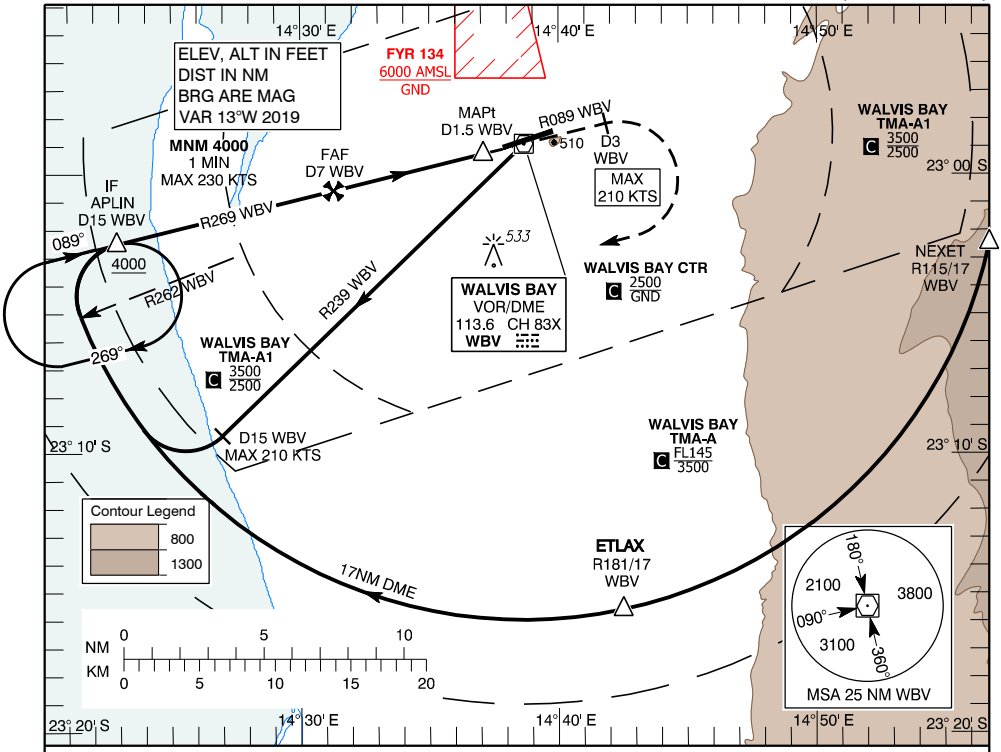
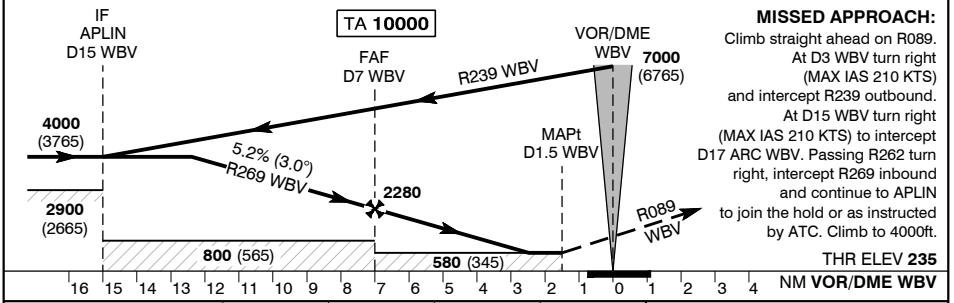
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV - **299 FT**
HEIGHT RELATED TO
THR RWY - **09** ELEV - **235 FT**

TWR	122.50
ATIS	127.00

WALVIS BAY (FYWB)
VOR RWY 09
(CAT A, B, C, D)





MISSED APPROACH:
Climb straight ahead on R089.
At D3 WBV turn right
(MAX IAS 210 KTS)
and intercept R239 outbound.
At D15 WBV turn right
(MAX IAS 210 KTS) to intercept
D17 ARC WBV. Passing R262 turn
right, intercept R269 inbound
and continue to APLIN
to join the hold or as instructed
by ATC. Climb to 4000ft.

THR ELEV **235**

Aircraft CAT		A	B	C	D
MDA (OCH) VIS	Straight-in	**580** (345) 1400m			
	Circling	**870** (571) 1900m	**940** (641) 2800m	**1160** (861) 3700m	**1240** (941) 4600m
Dist fm WBV DME	NM	6	5	4	3	2
Altitude	FT	1965	1645	1325	1005	685
Ground Speed	KTS	80	100	120	140	160
Descent Rate (3.0°)	FT/MIN	425	530	635	745	850

NOTES:
1. WBV DME required.
2. GNSS permitted in lieu of DME. Reference waypoint WBV VOR.

Circling to the NORTH prohibited

CHANGES: NEW

RWY 09 VOR Approach

Descent Angle:	3 °						
Fix	IAF 1 / NEXET	IAF 2 / ETLAX	IF / APLIN D15 WBV	FAF D7 WBV	MAPt D1.5 WBV	MATP D3 WBV	MATP D15 WBV
Fix Coordinates	230227.80S 0145641.80E	231536.47S 0144230.16E	230230.44S 0142253.39E	230036.23S 0143117.83E	225917.24S 0143705.41E	225812.39S 0144149.96E	230922.48S 42657.96E
Fix Formation Bearing °T	102.03 WBV	168.03 WBV	256.18 WBV	256.18 WBV	256.18 WBV	076.18 WBV	226.00 WBV
Fix Formation Distances	17.0 WBV	17.0 WBV	15.0 WBV	7.0 WBV	1.5 WBV	3.0 WBV	15.0 WBV

Holding Identification

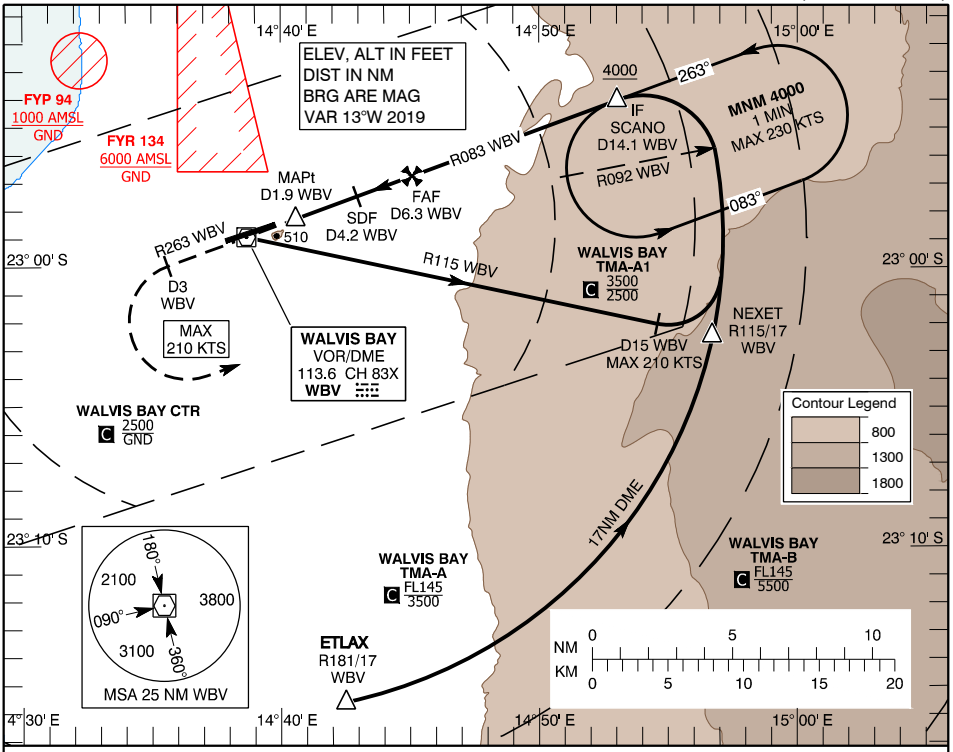
Holding Fix	Latitude / Longitude	Inbound True Track (degrees)	Inbound Magnetic Track (degrees)	Maximum Indicated Airspeed (kts)	Maximum/ Minimum Holding Altitude (ft)	Limiting Time (min)	Direction of Turn
APLIN	230230.44S 0142253.39E	076.31	089	230	- / 4000	1	R

INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV - **299 FT**
HEIGHT RELATED TO
THR RWY - **27** ELEV - **317 FT**

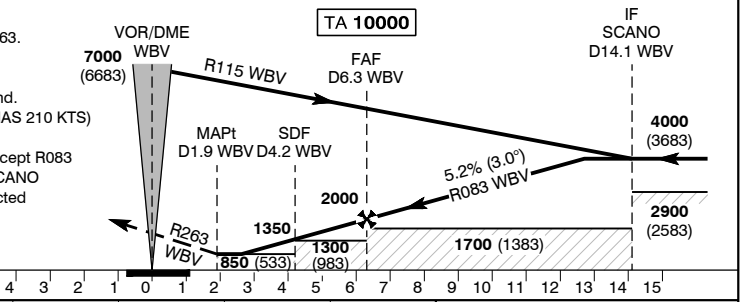
TWR	122.50
ATIS	127.00

WALVIS BAY (FYWB)
VOR RWY 27
(CAT A, B, C, D)



MISSED APPROACH:
Climb straight ahead on R263.
At D3 WBV turn left
(MAX IAS 210 KTS)
and intercept R115 outbound.
At D15 WBV turn left (MAX IAS 210 KTS)
to intercept D17 ARC WBV.
Passing R092 turn left, intercept R083
inbound and continue to SCANO
to join the hold or as instructed
by ATC. Climb to 4000ft.

THR ELEV **317**



Aircraft CAT		A	B	C	D
MDA (OCH) VIS	Straight-in	**850** (533) 2200m			
	Circling	**870** (571) 2200m	**940** (641) 2800m	**1160** (861) 3700m	**1240** (941) 4600m
Dist fm WBV DME	NM	3	4	5	6
Altitude	FT	965	1285	1605	1920
Ground Speed	KTS	80	100	120	140	160
Descent Rate (3.0°)	FT/MIN	425	530	635	745	850

NOTES:
1. WBV DME required.
2. GNSS permitted in lieu of DME. Reference waypoint WBV VOR.

Circling to the NORTH prohibited

CHANGES: NEW

RWY 27 VOR Approach

Descent Angle:	3 °							
Fix	IAF 1 ETLAX	IAF 2 NEXET	IF SCANO D14.1 WBV	FAF D6.3 WBV	SDF D4.2 WBV	MAPt D1.9 WBV	MATP D3.0 WBV	MATP D15.0 WBV
Fix Coordinates	231536.47S 0144230.16E	230227.80S 0145641.80E	225402.31S 0145300.9	225644.71S 0144505.08E	225728.37 0144256.90E	225816.77S 0144034.65E	225957.82S 0143537.27E	230202.55S 0145434.88E
Fix Formation Bearing °T	168.03 WBV	102.03 WBV	069.84 WBV	069.84 WBV	069.84 WBV	069.84 WBV	249.84 WBV	102.00 WBV
Fix Formation Distance	17.0 WBV	17.0 WBV	14.1 WBV	6.3 WBV	4.2 WBV	1.9 WBV	3.0 WBV	15.0 WBV

Holding Identification

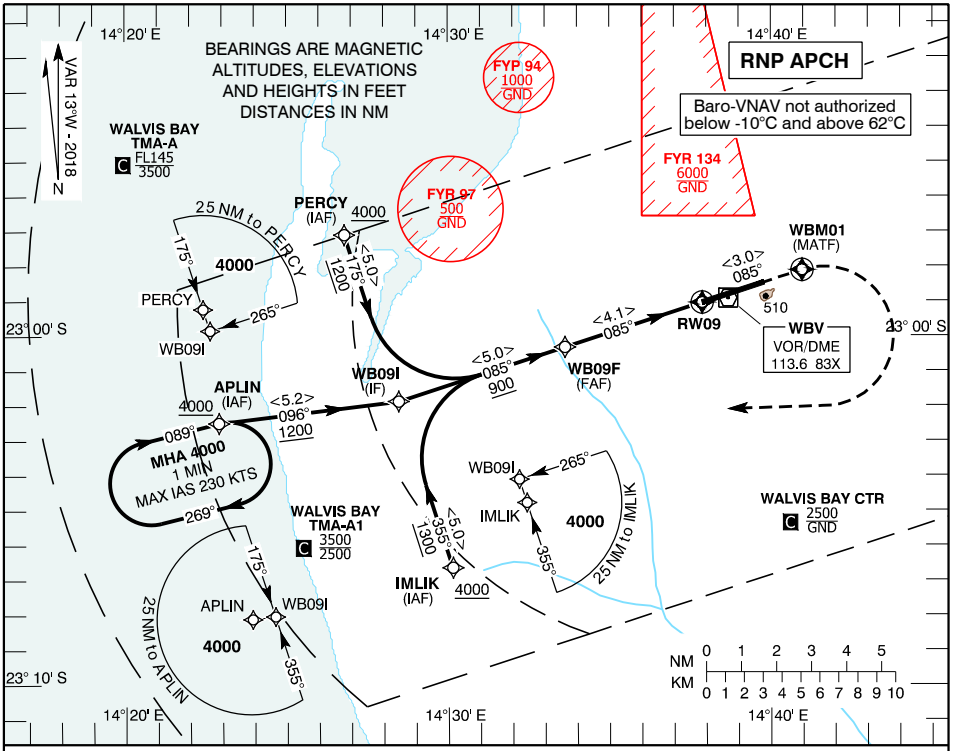
Holding Fix	Latitude / Longitude	Inbound True Track (degrees	Inbound Magnetic Track (degrees)	Maximum Indicated Airspeed (kts)	Maximum/ Minimum Holding Altitude (ft)	DME distance (NM)	Direction of Turn
IF / SCANO	225402.31S 0145300.97E	249.72	262.72	230	- / 4000	14.0	L

INSTRUMENT APPROACH CHART - ICAO

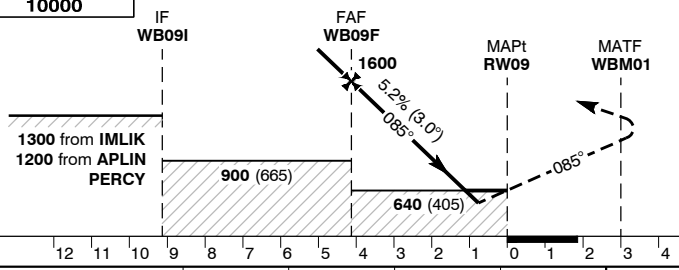
AERODROME ELEV - **299 FT**
HEIGHT RELATED TO
THR RWY - **09** ELEV - **235 FT**

TWR	122.50
ATIS	127.00

WALVIS BAY (FYWB) RNP RWY 09



TRANSITION ALT
10000



MISSED APPROACH:
Climb straight ahead.
At fly-over waypoint
WBM01 turn right
direct to **APLIN**
to join the hold
(MHA **4000**).

RDH 50

Aircraft CAT		A	B	C	D
MDA (OCH) VIS	LNAV	**640** (405) 1700			
	LNAV/VNAV	**530** (295) 1200	**540** (305) 1200	**550** (315) 1200	**560** (325) 1300
Distance to MAPt	NM	4	3	2	
Altitude	FT	**1560** (1325)	**1240** (1005)	**920** (685)	
Ground Speed	KTS	80	100	120	140	160
Descent Rate (3.0°)	FT/MIN	425	530	635	745	850

NOTES:
1. MAX IAS 250 KTS at and below 10000.
2. Descent gradient greater than 5.6% (3.2°) from IMLIK and PERCY.

CHANGES: NEW

Serial #	Navigational performance	Path descriptor	Waypoint identifier	Waypoint coordinates	Fly-Over	True track [°] Magnetic track [°]	Distance [nm]	Turn direction	Upper limit [ft] / Lower limit [ft]	Speed [kts]	VPA [°] / TCH [ft]	Remarks
1	RNP APCH	IF	IMLIK	23°06'39.14"S 014°30'08.09"E	-	-	-	-	- / 4000	-		IAF
2	RNP APCH	TF	WB09I	23°01'52.87"S 014°28'27.53"E	N	342.0 / 355	5.0	-	-	-		IF
3	RNP APCH	TF	WB09F	23°00'19.93"S 014°33'36.84"E	N	072.0 / 085	5.0	-	- / 1600	-		FAF
4	RNP APCH	TF	RW09	22°59'03.14"S 014°37'52.23"E	Y	072.0 / 085	4.1	-	-	-	3.00 / 50	-
5	RNP APCH	CF	WBM01	22°58'07.36"S 014°40'57.75"E	Y	072.0 / 085	-	-	-	-		WBV 082°/ WBV D 2.3
6	RNP APCH	OF	APLIN	23°02'30.44"S 014°22'53.39"E	N	-	-	R	-	230		IAF

Serial #	Navigational performance	Path descriptor	Waypoin1 identifier	Waypoint coordinates	Fly-Over	True track [°] / Magnetic track [°]	Distance [nm]	Turn direction	Upper limit [ft] / Lower limit [ft]	Speed [kts]	VPA [·] / TCH [ft]	Remarks
1	RNP APCH	IF	APLIN	23°02'30.44"S 014°22'53.39"E	-	-	-	-	- / 4000	-	-	IAF
2	RNP APCH	TF	WB091	23 °01'52 .87"S 014°28'27.53"E	N	083.1 / 096	5.2	-	-	-	-	IF
3	RNP APCH	TF	WB09F	23°00'19.93"S 014°33'36.84"E	N	072.0 / 085	5.0	-	- / 1600	-	-	FAF
4	RNP APCH	TF	RW09	22°59'03.14"S 014°37'52.23"E	Y	072.0 / 085	4.1	-	-	-	3.00 / 50	-
5	RNP APCH	CF	WBM01	22°58'07.36"S 014°40'57.75"E	Y	072.0 / 085	-	-	-	-	-	WBV 082°/ WBV D 2.3
6	RNP APCH	OF	APLIN	23°02'30.44"S 014°22'53.39"E	N	-	-	R	-	230	-	IAF

Serial #	Navigational performance	Path descriptor	Waypoint identifier	Waypoint coordinates	Fly-Over	True track [°] Magnetic track [°]	Distance [nm]	Turn direction	Upper limit [ft] / Lower limit [ft]	Speed [kts]	VPA [°] / TCH [ft]	Remarks
1	RNP APCH	IF	PERCY	22°57'06.57"S 014°26'47.08"E	-	-	-	-	- / 4000	-	-	IAF
2	RNP APCH	TF	WB09I	23°01'52.87"S 014°28'27.53"E	N	162.0 / 175	5.0	-	-	-	-	IF
3	RNP APCH	TF	WB09F	23°00'19.93"S 014°33'36.84"E	N	072.0 / 085	5.0	-	- / 1600	-	-	FAF
4	RNP APCH	TF	RW09	22°59'03.14"S 014°37'52.23"E	Y	072.0 / 085	4.1	-	-	-	3.00 / 50	-
5	RNP APCH	CF	WBM01	22°58'07.36"S 014°40'57.75"E	Y	072.0 / 085	-	-	-	-	-	WBV 082°/ WBV D 2.3
6	RNP APCH	OF	APLIN	23°02'30.44"S 014°22'53.39"E	N	-	-	R	-	230	-	IAF

Hold Identification

Holding Fix	Latitude (N) / Longitude (W)	Inbound True Track (degrees)	Inbound Mag Track (degrees)	Maximum Indicated Airspeed (kts)	Minimum Holding Altitude / Level (FU ft)	Maximum Holding Altitude/ Level (FU ft)	Distance outbound limit (NM) /Outbound time (mix)	Direction of Turn
APLIN	23°02'30.44"S / 014°22'53.39"E	076.0	089	230	4000	-	1 min	R

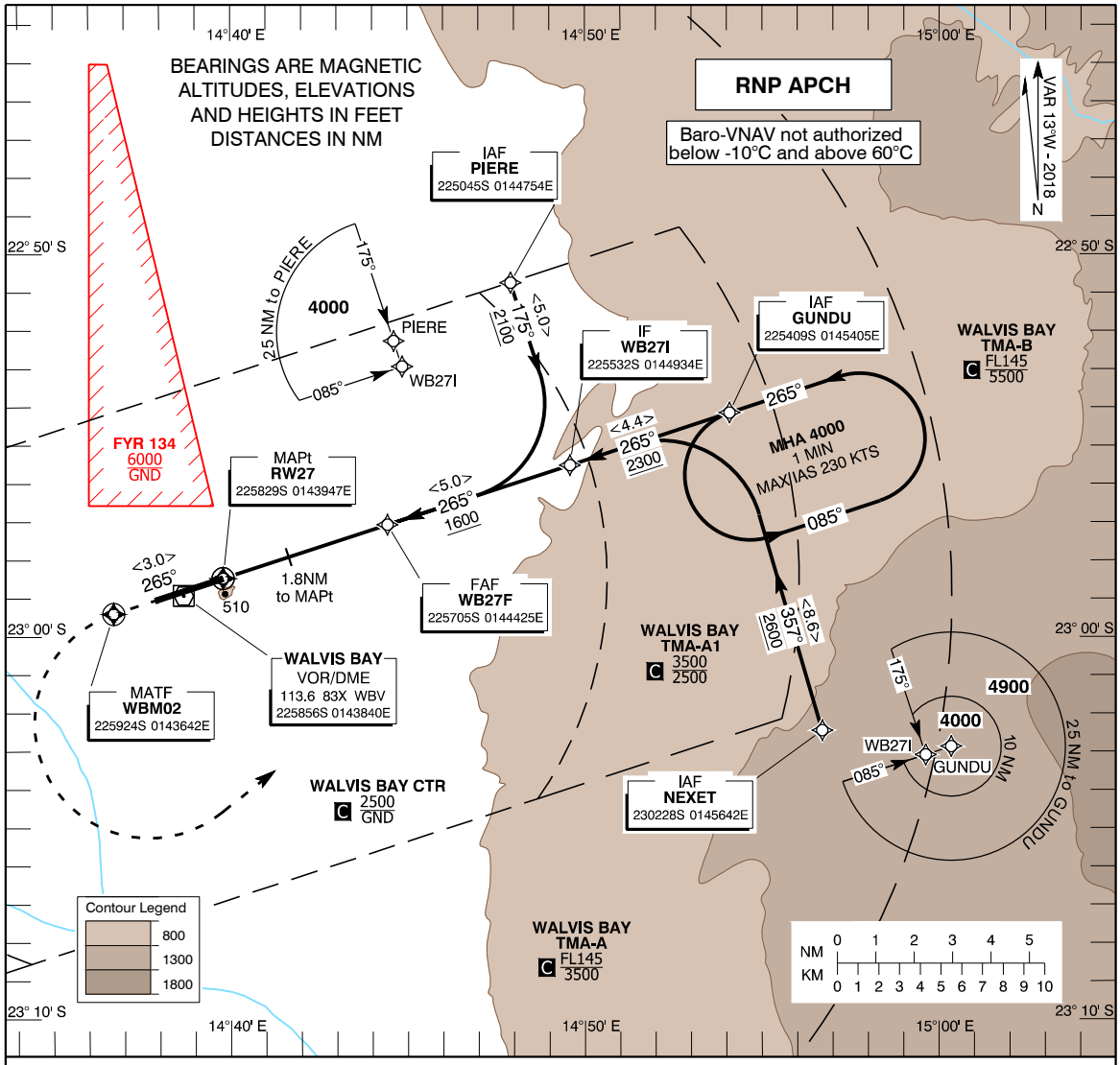
INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV - **299 FT**
HEIGHT RELATED TO
THR RWY - **27** ELEV - **316 FT**

TWR	122.50
ATIS	127.00

WALVIS BAY (FYWB)

RNP RWY 27

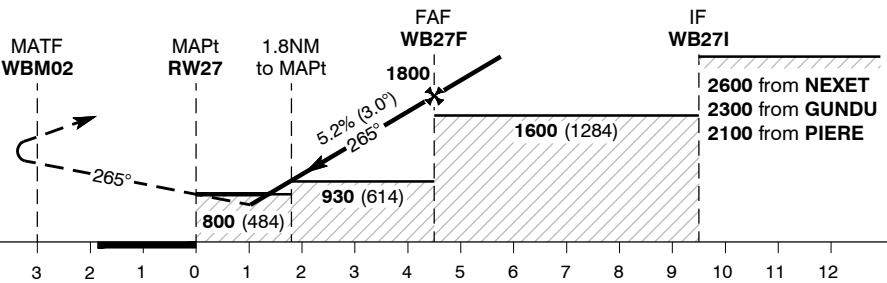


MISSED APPROACH:
Climb straight ahead.
At fly-over waypoint **WBM02** turn left direct to **GUNDU** to join the hold (MHA **4000**).

RDH 50

THR ELEV **316**

NM THR **RWY 27**



TRANSITION ALT
10000

Aircraft CAT		A	B	C	D
MDA (OCH) VIS	LNAV	**800** (484) 1500			
	LNAV/VNAV	**690** (374) 1000	**700** (384) 1100	**710** (394) 1100	**720** (404) 1200

Distance to MAPt	NM	2		3		4
Altitude	FT	**1005** (689)		**1320** (1004)		**1640** (1324)
Ground Speed	KTS	80	100	120	140	160
Rate of Descent (3.0°)	FT/MIN	425	530	635	745	850

NOTES:
1. MAX IAS 250 KTS at and below 10000.

CHANGES: NEW

Serial #	Navigational performance	Path descriptor	Waypoint identifier	Waypoint coordinates	Fly-Over	True track [°]/ Magnetic Track [°]	Distance [nm]	Turn direction	Upper limit [ft] / Lower limit [ft]	Speed [kts]	Remarks
1	RNAV 1	IF	NEXET	23°02'27.80"S 014°56'41.80"E	-	-	-	-	- / 4000	-	IAF
2	RNAV 1	TF	GUNDU	22°54'09.29"S 014°54'04 .80"E	N	343.7 / 357	8.6	-	- / 2600	-	IAF

Serial #	Navigational performance	Path descriptor	Waypoint identifier	Waypoint coordinates	Fly-Over	True track [°]/ Magnetic track [°]	Distance [nm]	Turn direction	Upper limit [ft] / Lower limit [ft]	Speed [kts]	VPA [°]/ TCH [ft]	Remarks
1	RNP APC H	IF	PIERE	22°50'45.32"S 014°47'54.13"E	-	-	-	-	- / 4000	-	-	IAF
2	RNP APCH	TF	WB27I	22°55'31.62"S 014°49'34.50"E	N	162.0 / 175	5.0	-	-	-	-	IF
3	RNP APCH	TF	WB27F	22°57'04.72"S 014°44'25 .42"E	N	252.0 / 265	5.0	-	- / 1800	-	-	FAF
4	RNP APCH	TF	RW27	22°58'28.55"S 014°39'47.08"E	Y	252.0 / 265	4.5	-	-	-	3.00 *1 50*	-
5	R N P APCH	CF	WBM02	22°59'24.42"S 014°36'41.57"E	Y	252.0 / 265	-	-	-	-	-	WB V 268° / WB V D 1.9
6	RNP APCH	DF	GUNDU	22°54'09.29"S 014°54'04.80"E	N	-	-	L	-	23 0	-	IAF

Serial #	Navigational performance	Path descriptor	Waypoint identifier	Waypoint coordinates	Fly-Over	True track [°]/ Magnetic track [°]	Distance [nm]	Turn direction	Upper limit [ft] / Lower limit [ft]	Speed [kts]	VPA [°]/ TCH [ft]	Remarks
1	RNP APCH	IF	GUNDU	22°54'09.29"S 014°54'04.80"E	-	-	-	-	- / 4000	-	-	IAF
2	RNP APCH	TF	WB27I	22°55'31.62"S 014°49'34.50"E	N	251.8 / 265	4.4	-	-	-	-	IF
3	R N P APCH	TF	WB27F	22°57'04.72"S 014°44'25.42"E	N	252.0 / 265	5.0	-	- / 1800	-	-	FAF
4	RNP APCH	TF	RW27	22°58'28.55"8 014°39'47.08"E	Y	252.0 / 265	4.5	-	-	-	3.00 / 50	-
5	RNP APCH	CF	WBM02	22°59'24.42"S 014°36'41.57"E	Y	252.0 / 265	-	-	-	-	-	WBV 268°/ WBV D 1.9
6	RNP APCH	DF	GUNDU	22°54'09.29"S 014°54'04.80"E	N	-	-	L	-	230	-	IAF

Hold Identification

Holding Fix	Latitude (N) / Longitude (W)	Inbound True Track (degrees)	Inbound Mag Track (degrees)	Maximum Indicated Airspeed (kts)	Minimum Holding Altitude/ Level (FU ft)	Maximum Holding Altitude/ Level (FL/ft)	Distance outbound limit (NM) /Outbound time (min)	Direction of Turn
GUNDU	22°54'09.29"S 014°54'04.80"E	251.8	265	230	4000	-	1 min	L

CTR CHART

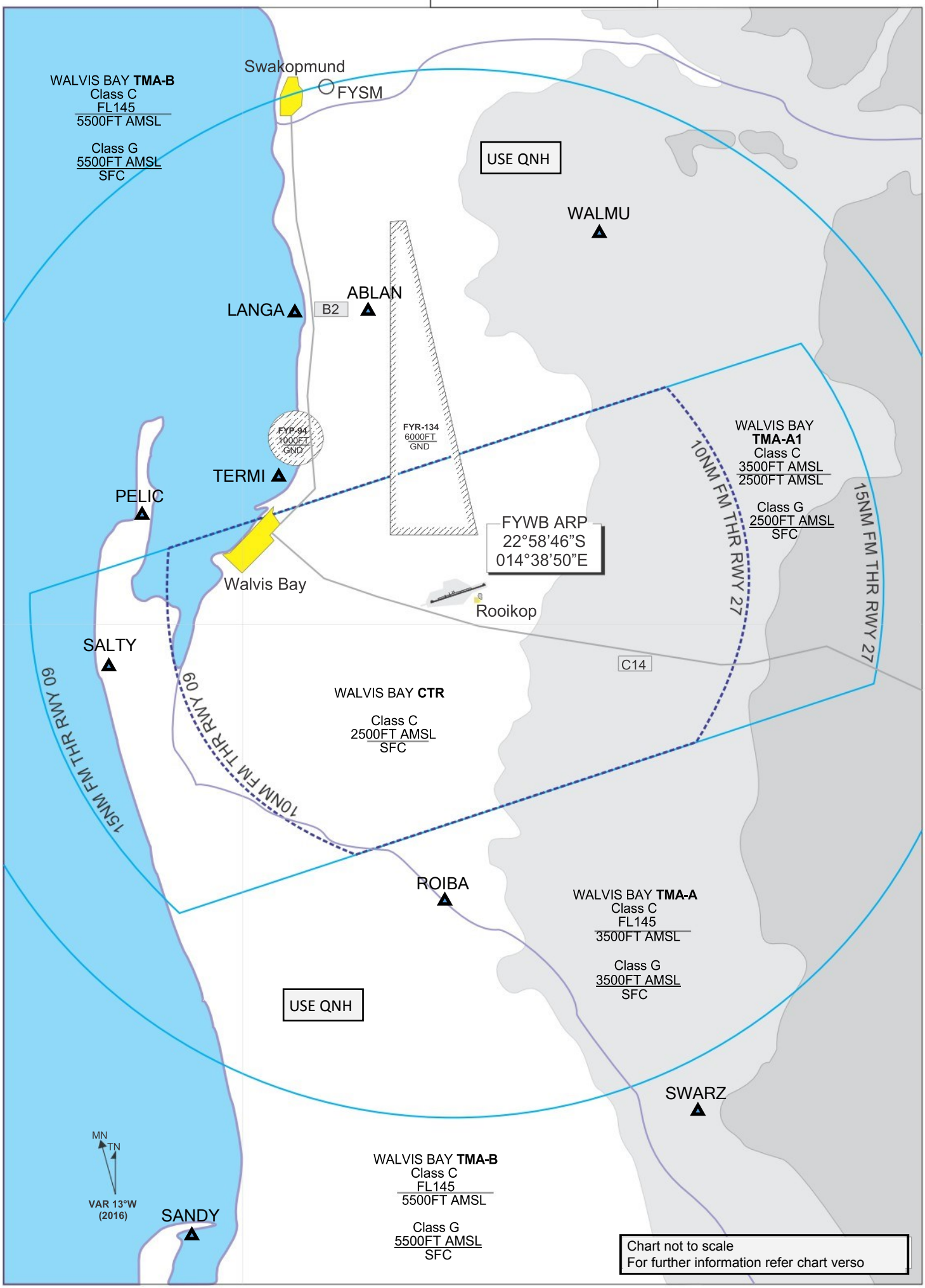
AERODROME ELEV 317'

TA 10000FT

WALVIS BAY:
TWR 122.5 Mhz
ATIS 127.0 Mhz

WALVIS BAY (FYWB)

CTR



Com failure:

1. Squawk 7600;
2. If possible, phone TWR +264 64 702690;
3. Join overhead the aerodrome at 2000FT AMSL;
4. Observe and join the TFC circuit;
5. Transmit your intentions at all times;
6. Make all turns LEFT where possible;
7. Ensure landing lights and strobes are on;
8. Watch TWR for optical signals.

Waypoints:

ABLAN	224834S 0143534E
LANGA	224834S 0143238E
PELIC	225542S 0142606E
ROIBA	231046S 0143858E
SALTY	230045S 0142429E
SANDY	232228S 0142828E
SWARZ	231834S 0144916E
TERMI	225418S 0143118E
TOWER	225838S 0143841E
VOGEL	230305S 0145951E
WALMU	224600S 0144416E

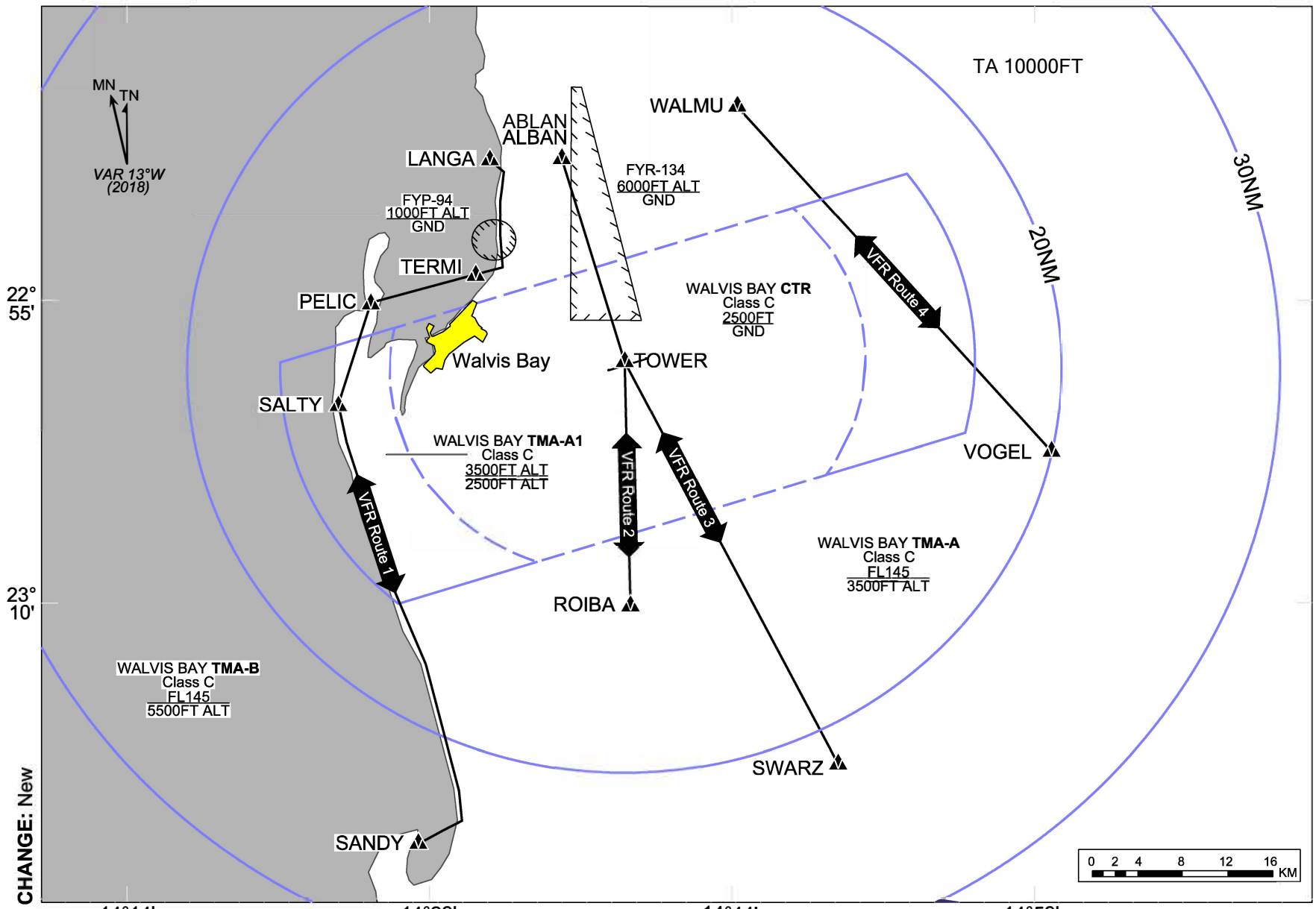
Waypoints must be spoken as:

ABLAN	East Abeam Langstrand
LANGA	Langstrand
PELIC	Pelican Point
SALTY	Salt Works
SANDY	Sandwich Harbour
SWARZ	Swarzbank Berg
TERMI	Oil Terminal
TOWER	Overhead Walvis Bay Tower
VOGEL	Vogelfederberg
WALMU	Walmund Power Station

AREA CHART

VFR ROUTES 1, 2, 3, 4

WALVIS BAY (FYWB) TMA



CHANGE: New

VFR Route 1:
NOTE: no ATC clearance required when tracking via VFR Route 1.
Contact Walvis Bay TWR 122.50MHz at Sandwich Harbour (SANDY) or Langstrand (LANGA) and advise:
"Walvis Bay Tower, *Callsign,* Sandwich Harbour/Langstrand, tracking via VFR Route 1", at *xxxxFT*.
Bidirectional Not above 2500FT Class of Airspace: G
ENTRY / EXIT: LANGA (Langstrand 22 48 34S 014 32 38E)
ENTRY / EXIT SANDY (Sandwich Harbour 23 22 28S 14 28 28 E)

VFR Route 2:
NOTE: ATC Clearance required.
Contact Walvis Bay Tower 122.05MHZ at East Abeam Langstrand (ABLAN) or Rooibank (ROIBA) for ATC clearance, and advise:
"Walvis Bay Tower *Callsign,* East abeam Langstrand / Rooibank
Tracking via VFR Route2, at *xxxxFT*, request clearance"
Do not proceed until ATC clearance received.
Bidirectional Not above 3500FT, and as cleared by ATC
Class of Airspace: G/C/G
ENTRY / EXIT: ABLAN (East abeam Langstrand 22 48 34 S 014 35 34E)
ENTRY / EXIT ROIBA (Rooibank 23 10 46 S 014 38 58 E)
Aircraft must monitor FYWB TWR 122.50MHz.

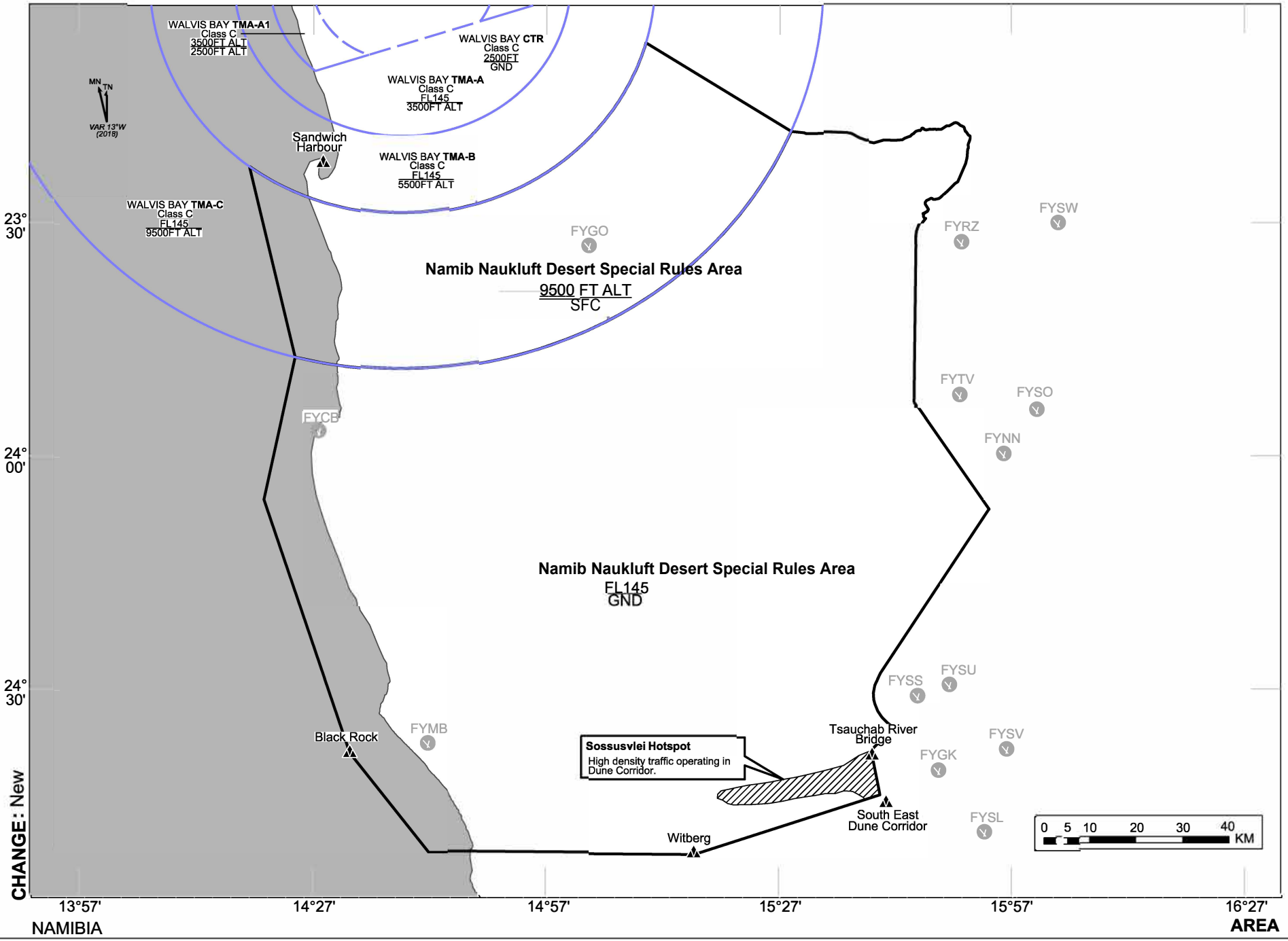
VFR Route 3:
NOTE: ATC Clearance required.
Contact Walvis Bay Tower 122.50MHZ at East Abeam Langstrand (ABLAN), or Swartzbank Berg (SWARZ) for ATC clearance, and advise:
"Walvis Bay Tower *Callsign,* East abeam Langstrand / Swartzbank Berg
Tracking via VFR Route2, at *xxxxFT*, request clearance"
Do not proceed until ATC clearance received.
Bidirectional Not above 3500FT, and as cleared by ATC
Class of Airspace: G/C/G
ENTRY / EXIT: ABLAN (East abeam Langstrand 22 48 34 S 014 35 34E)
ENTRY / EXIT: SWARZ (Swartbank Berg 23°18'34.00"S 14°49'16.00"E)
Aircraft must monitor FYWB TWR 122.50MHz.

VFR Route 4:
NOTE: no ATC clearance required when tracking via VFR Route 4.
Contact Walvis Bay TWR 122.50MHz at Walmund Power Station (WALMU) or Vogelfederberg (VOGEL) and advise:
"Walvis Bay Tower, *Callsign,* Walmund Power Station / Vogelfederberg, tracking via VFR Route 4", at *xxxxFT*.
Bidirectional Not above 2500FT Class of Airspace: G
ENTRY / EXIT: VOGEL (Vogelfederberg 23 03 05 S 014 59 51 E.)
ENTRY / EXIT: WALMU (Walmund Power station 22 46 S 014 44 16 E)
Aircraft must monitor FYWB TWR 122.50MHz.

AREA CHART

NAMIB NAUKLUFT DESERT SPECIAL RULES AREA

WALVIS BAY (FYWB)



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