
AIP SUPPLEMENT MALAYSIA

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MALAYSIA

16 / 2012

12 JUL

AIRAC

KUALA LUMPUR FLIGHT INFORMATION REGION

IPOH/ SULTAN AZLAN SHAH AIRPORT INTRODUCTION OF NEW INSTRUMENT FLIGHT PROCEDURES, IFR HOLDING AREAS, REVISION OF IPOH CTR AND AERODROME DATA

1. INTRODUCTION

- 1.1 The Ipoh / Sultan Azlan Shah Airport's runway has been extended to 2000M x 45M. It is expected to be opened for operation on 23 August 2012.
- 1.2 The extension of the runway at both Runway ends offers longer landing and take-off distances. However the position of the threshold for Runway 04 remain at the same location while the Threshold for Runway 22 has been extended 2M northward. The runway has been widened to 45 M.
- 1.3 The purpose of this AIP Supplement is to notify the aviation industry of the new runway dimension, aerodrome details, the revision of instrument approach procedures, holding areas and the existing and new information presented in applicable ICAO format for Aeronautical Information Publication.
- 1.4 There are no changes to existing navigational and visual aids.

2. ESTABLISHMENT OF NEW ROUTE FROM VIH VOR TO SUKAT (A457)

- 2.1 A new ATS Route, W545 will be established connecting VIH VOR with A457 at SUKAT. The establishment is to provide a shorter route to Ipoh airport.

2.2 W545 details are as follows:

TABLE 1 - ENR 3 ATS ROUTES						
ENR 3.1 LOWER AND UPPER ATS ROUTES						
Route Designator Significant Points Coordinates	Track (MAG) DIST (NM)	Upper limits Lower limits Minimum Flight Altitude Airspace Classification (Refer to ENR 1.4-1)	Lateral Limits (NM)	Cruising levels		Remarks Controlling unit
				Odd	Even	
1	2	3	4	5		6
W545						
▲ IPOH DVOR / DME (VIH) 043425.01N 1010538.14E ▲ SUKAT 033525N 1010112E	184° 004° 59NM	FL 460 6000 FT ALT MNM 6500	20			Controlling Authority: Kuala Lumpur ACC (P) 132.8 MHz, (S) 133.55 MHz. (within Ipoh CTR - Ipoh Tower 122.1MHz)

2.3 See Appendix E-1 for ATS route chart

3. MOVEMENT AREAS AND AERODROME DATA

3.1 The new declared distances are as follows:

	TORA	TODA	LDA	ASDA
RUNWAY 04	NU	NU	1800M	NU
RUNWAY 22	2000M	2000M	NU	2000M

3.2 All new aerodrome data and information pertaining to the upgraded airport are listed in APPENDIX A1 to APPENDIX A 11.

3.3 Aeronautical ground lighting, visual markings for runway and taxiways, ground movement and parking are shown in APPENDIX B, APPENDIX C and APPENDIX D respectively.

4. NEW AND REVISED INSTRUMENT APPROACH CHARTS FOR RUNWAY 04 AND RUNWAY 22

4.1 New and revised instrument flight procedures including precision instrument approaches, non-precision approaches, standard instrument arrival routes for Runway 04 and standard instrument departures for Runway 22 are introduced. These are shown in APPENDIX F1 to F-9 respectively.

5. NEW IFR HOLDING AREAS AND REPORTING POINTS

5.1 Three new IFR aircraft Holding areas are established based on VOR/DME Fix. The details are as follows :-

Holding Area	OUBD TR (° M)	Direction	Max IAS (KTS)	MNM/MAX HLDG LVL (MSL)FT	TIME (Min)
MARDI 041222.4N 1010358.8E RDL184/22 VIH	184°	Right	230	6500 to FL 140	1
ADBAD 044408.7N 1005409.8E RDL310/15 VIH	310°	Right	230	7000 to FL 140	1
VIH 043425.01N 1010538.14E (VOR APCH)	219°	Right	230	6500 to FL 140	1
VIH 043425.01N 1010538.14E (ILS APCH)	221°	Right	230	6500 to FL 140	1

5.2 Holding areas chart is shown in APPENDIX E-2

5.3 The following list contains the waypoints related to SIDs, STARs and IAP Procedures at Ipoh/Sultan Azlan Shah Airport :

ICAO CODE	LAT	LONG	Reference to NAVAID (RDL/DME FM VIH)	Remarks
MARDI	041222.4N	1010358.8E	184/22	
ADBAD	044408.7N	1005409.8E	310/15	
EMSAR	042436.9N	1005711.9E	221/13	
KALOG	042037.5N	1010142.1E	196/14	
RIMGO	042836.3N	1005241.8E	246/14	
OBMIN	043555.3N	1005323.2E	277/12	
SOTRO	045554.4N	1004926.4E	323/27	
NITIS	045904.8N	1005500.0E	337/27	
TUVSI	050009.7N	1005959.3E	343/27	
KI501	042903.1N	1010106.1E	220/7	
KI502	042647.5N	1005906.8E	221/10	
AGRES	042610.3N	1003823.4E	253/28	
LUTMI	040824.9N	1011311.8E	164/27	

5.4 The following aerodrome chart and instrument approach charts pertaining to Ipoh / Sultan Azlan Shah Airport in AIP Malaysia are superseded and withdrawn:

Chart Name	AIP Page
AERODROME CHART – ICAO	WMKI AD2 - 23
CONTROL ZONE AND HOLDING PATTERNS	WMKI AD2 - 47
STANDARD DEPARTURE CHART – INSTRUMENT – ICAO DEPARTURE RWY 22	WMKI AD2 - 51
INSTRUMENT APPROACH CHART – ICAO – RWY 04 ILS / LLZ DME	WMKI AD2 - 81
INSTRUMENT APPROACH CHART – ICAO – RWY 04 ILS / LLZ DME(Alternative 1)	WMKI AD2 - 83
INSTRUMENT APPROACH CHART – ICAO – RWY 04 ILS / LLZ DME (Alternative 2)	WMKI AD2 - 85
INSTRUMENT APPROACH CHART – ICAO – RWY 04 ILS / LLZ DME (Alternative 3)	WMKI AD2 - 87
INSTRUMENT APPROACH CHART – ICAO – RWY 04 VOR / DME ARC	WMKI AD2 - 89
INSTRUMENT APPROACH CHART – ICAO – RWY 04 VOR / DME	WMKI AD2 - 91
INSTRUMENT APPROACH CHART – ICAO – RWY 04 LLZ / DME VOR / DME (Alternative)	WMKI AD2 - 93
INSTRUMENT APPROACH CHART – ICAO – RWY 04 VOR / DME (VIH)	WMKI AD2 - 95
INSTRUMENT APPROACH CHART – ICAO – RWY 04 VOR (VIH only)	WMKI AD2 - 97
INSTRUMENT APPROACH CHART – ICAO – RWY 04 LLZ / DME VOR / DME (VPS VOR Only)	WMKI AD2 - 99
INSTRUMENT APPROACH CHART–CAO– RWY 04 LOCATOR	WMKI AD2 - 101

6. IMPLEMENTATION

- 6.1 This AIP Supplement and relevant Charts will become effective at 0001 UTC on 23 August 2012. A trigger NOTAM will be issued notifying the effective date of implementation of facilities.

7. CANCELLATION

- 7.1 This AIP Supplement will remain current until the information is published in AIP Malaysia.

DATO' AZHARUDDIN ABDUL RAHMAN

Director General

Department of Civil Aviation

Malaysia

WMKI – IPOH/SULTAN AZLAN SHAH

WMKI AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

1	ARP coordinates and site at AD	LAT 043409N LONG 1010535E
2	Direction and distance from city	Dist 6.4KM Brg 150° from Ipoh Railway Station
3	Elevation / Reference temperature	102FT (31M) / 33° C
4	GEOID Undulation (ARP)	-6.905 M
5	MAG VAR / Annual change	00°14'00" W (2012) (1' per year)
6	AD Administration, address, telephone telefax, telex, AFS	<p>Operator : Malaysia Airports Sdn. Bhd. Sultan Azlan Shah Airport 31350 Ipoh Perak Darul Ridzuan Tel : 05-3188203 / 3188216 Fax : 05-3122295</p> <p>ATC Services : Department of Civil Aviation Malaysia Sultan Azlan Shah Airport 31350 Ipoh Perak Darul Ridzuan. Tel : 05-3188601 (DCA Office 05-3088602 (Tower) Fax : 05-3188605 (Tower) Fax : 05-3122529 (DCA Office)</p>
7	Types of traffic permitted (IFR/VFR)	(IFR / VFR)
8	Remarks	Nil

WMKI AD 2.3 OPERATIONAL HOURS

1	AD Administration	2300 – 1100 UTC daily
2	Customs and immigration	0001 – 0900 UTC daily Customs : Tel/Fax: 05-3126114 Airport State Office Tel: 05-5273667 Fax: 05-5275884 Immigration: Tel: 05-3114603, 05-5017141, 05-5017158 Fax: 05-5017122 Airport State Office: 05-5017100
3	Health and sanitation	Nil
4	AIS Briefing Office	Nil
5	ATS Reporting Office (ARO)	2300 – 1300 daily
6	MET Briefing Office	H24
7	ATS	2300 – 1300 daily
8	Fuelling	Available on request from aircraft company based at Ipoh Airport. Jet Fuel Sdn. Bhd. Tel: 012-3064551 / 012-5463486 012-4194197
9	Handling	Tel: 016-5411009 / 019-4616873
10	Security	H24
11	De-icing	Nil
12	Remarks	AD OPS HRS: 2300 – 1300 daily

WMKI AD 2.4 HANDLING SERVICES AND FACILITIES

1	Cargo handling facilities	Nil
2	Fuel / Oil types	Nil
3	Fuelling facilities / capacity	Nil
4	De-icing facilities	Nil
5	Hangar space available for visiting aircraft	For aircraft category of 30,000lbs or lower, wing span not longer than 68ft. Available on request from aircraft maintenance company based at Ipoh Airport. Tel: 05-3137525 Fax: 05-3126408
6	Repair facilities for visiting aircraft	For aircraft category 30,000lbs and lower, available on request from aircraft maintenance company based at Ipoh Airport. Tel: 05-3137525 Fax: 05-3126408
7	Remarks	Nil

WMKI AD 2.5 PASSENGER FACILITIES

1	Hotels	Hotels in town
2	Restaurants	Cafeterias and shops in airport terminal buildings.
3	Transportation	Taxi services and car rental.
4	Medical facilities	General/Private/Specialist Hospital in city 6km from airport.
5	Bank and Post Office	1.2km from airport.
6	Tourist Office	Nil
7	Remarks	Nil

WMKI AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

1	AD category for fire fighting	Category 6
2	Rescue equipment	Type of vehicle : a) 4 Ultra Large Foam Tender. b) Mini Rapid Intervention Vehicle.
3	Capability for removal of disabled aircraft	Available on request from aircraft maintenance company based at Ipoh Airport. Tel: 05-3137525 Fax: 05-3126408 Local heavy-duty crane service available on request. Tel: 05-5485835, 019-5569240
4	Remarks	AFRS hrs of service 2300 – 1300 UTC daily.

WMKI AD 2.7 SEASONAL AVAILABILITY - CLEARING**NOT APPLICABLE****WMKI AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS DATA**

1	Apron surface and strength	Surface : Strength :	Rigid (concrete) Bay 1 - PCN 105 R/A/W/T Bay 2 - PCN 115 R/A/W/T Bay 3 - PCN 120 R/A/W/T
2	Taxiway width, surface and strength	Width : Surface : Strength :	Twy A and B 22M Twy C 23M Twy D 10.3M Twy E 10.5M Bearing strength Twy A and B PCN 51 F/A/W/T Asphalt flexible Bearing strength for Twy C, Twy D and Twy E to be notified.
3	ACL location and elevation	Location : Elevation :	Nil Nil
4	VOR / INS checkpoint	VOR : INS	Nil At aircraft parking stand Bay 1 – 043415.93N 1010554.07E Bay 2 – 043414.40N 1010552.72E Bay 3 – 043412.76N 1010551.27E
5	Remarks	5 Taxiways namely: Twy A, Twy B, Twy C, Twy D and Twy E connecting Twy B and Twy C.	

**WMKI 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	Twy guidelines to parking bays.
2	RWY and TWY markings and LGT	RWY: Designation, THR, TDZ, Centreline, Aiming Point, Side Stripe, Runway Edge Light, Simple Approach Light, Runway End Light, PAPI. TWY: Centreline, Holding Position, Taxiway Centreline Light, Taxiway Edge Light, Illuminated Guidance Sign.
3	Stop bars	Nil
4	Remarks	Displaced Threshold RWY 04 : 120M Displaced Threshold RWY 22 : 80M

WMKI AD 2.10 AERODROME OBSTACLES

RWY/ Area effected	Obstacle Type Elevation Markings / LGT	Coordinates
a	b	c
04 APCH 22 TKOF	GP/DME Antenna, hgt 43.4M. Marked and lighted	043347.37N 1010522.69E
	Building hgt 73.5M/ Brg 223°/3.2KM from ARP lighted	043244N 1010416E
	Telecom Tower hgt 128M Brg 228°/8KM from ARP. Marked and lighted	043058N 1010204E
	Turf Club Building 99.2M Brg 016°/2.6KM from ARP. Marked and lighted	043532N 1010558E
	Telecom Tower 139M Brg 337°/3KM from ARP. Marked and lighted	043542N 1010456E
	Telecom Tower on Kledang Hill, 917.6M Brg 292°/11KM from ARP. Lighted at night	043536N 1010055E
	Two aerial TV on Kledang Hill, 860M Brg 292°/11KM from ARP. Lighted at night	043525N 1010038E
	Building 59M Brg 087°/1.6KM from ARP. Lighted	043451N 1010607E
	Telecom Tower, 139M Brg 342°/3.7KM from ARP, Lighted at night	043603N 1010458E
	Aerial Mast Tower 51M AMSL/050° from ARP, Lighted at night	043536N 1010055E
	Building 860M Brg 035° from ARP, 66M AMSL. Lighted at night	043532N 1010427E
	Buildings 107M within the bounded area. Lighted at night	043530N 1010526E 043551N 1010620E 043642N 1010619E 043629N 1010511E 043615N 1010437E
	Flood Light Pole, Dist 883M, Brg 207° from ARP, 71M AMSL,	043346.2N 1010523.5E
	Flood Light pole, Dist. 381M, Brg 109° from ARP, 94M AMSL	043404.8N 1010546.8E
	Flood Light Pole, Dist 371M, Brg 099° from ARP, 88M AMSL	043407.0N 1010547.0E
	Hangar, Dist. 491M, Brg 197° from ARP, 73M AMSL	043353.7N 1010530.4E
	Broadcasting Tower, Dist. 215M, Brg 142° from ARP, 74M AMSL	043403.4N 1010539.4E

WMKI AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

1	Associated MET Office	IPOH/Sultan Azlan Shah
2	Hours of service MET Office outside hours	H24
3	Office responsible for TAF preparation Periods of validity	KL International Airport, Sepang 0012, 0618, 1224 and 1806 UTC
4	Type of landing forecast Interval of issuance	METAR and SPECI Trend-type: every 1 hour
5	Briefing consultations provided	Nil
6	Flight documentation Language(s) used	CR, TB English
7	Charts and other information available for briefing or consultation	Nil
8	Supplementary equipment available for providing information	Nil
9	ATS units provided with information	Ipoh TOWER
10	Additional information	Tel : 05-3133897

WMKI AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

Designation RWY NR	TRUE and MAG BRG	Dimension of RWY (M)	Strength (PCN) Surface of RWY and SWY	THR Coordinates	THR elevation and highest elevation of TDZ of precision APP RW
1	2	3	4	5	6
04	041.45° T	2000 x 45	LCN : 66 TARMAC	043342.92 N 1010512.25 E	THR 32.659 M TDZ 31.818 M
22	221.45° T	2000 x 45	LCN : 66 TARMAC	043426.91 N 1010550.95 E	THR 31.122 M
Slope of RWY - SWY	SWY Dimensions (M)	CWY Dimensions (M)	Strips Dimensions (M)	OFZ	Remarks
7	8	9	10	11	12
Nil	Nil	Nil	2120 x 300	Nil	RESA RWY 04: 90M x 90M
Nil	Nil	Nil	2120 x 300	Nil	RESA RWY 22: 90M x 90M

WMKI AD 2.13 DECLARED DISTANCES

RWY	TORA (M)	TODA (M)	ASDA (M)	LDA (M)	Remarks
1	2	3	4	5	6
04	NU	NU	NU	1800	THR RWY 04 displaced by 120M (394FT)
22	2000	2000	2000	NU	THR RWY 22 displaced by 80M (262FT)

WMKI AD 2.14 APPROACH AND RUNWAY LIGHTING

RWY Designator	APCH Lgt	THR Lgt	VASIS (MEHT) PAPI	TDZ Lgt	RWY Centre Line Lgt	RWY Edge Lgt	RWY End Lgt WBAR	SWY Lgt	Remarks
1	2	3	4	5	6	7	8	9	10
04	High Intensity Simple Approach Light	Green	PAPI Slope 3°	Nil	Nil	White/Yellow on the last 600M	Red	Nil	Nil
22	Nil	Green	Nil	Nil	Nil	White/Yellow on the last 600M	Red	Nil	Nil

WMKI AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

1	ABN / IBN location, characteristics and hours of operation	Rotating, green/white, on Tower as per ATS ops Hours. IBN: Not available.
2	LDI location and LGT Anemometer location and LGT	LDI: Not available WDI: RWY 04: 210M from THR on left side, lighted RWY 22: 270M from THR on right side, lighted
3	TWY edge and centreline lighting	TWY Edge Lights - Blue TWY Centreline Lights - green
4	Secondary power supply / switch-over time	Automatic standby generator available for airfield lighting, Control Tower, ILS equipment and terminal building. Change over time: 15 seconds.
5	Remarks	Nil

WMKI AD 2.16 HELICOPTER LANDING AREA**NIL****WMKI AD 2.17 ATS AIRSPACE**

1	Designation and lateral limits	IPOH – CTR Circle of 27NM radius centered on ARP 043409N 1010535E
2	Vertical limits	Ground Level – 9500FT
3	Airspace classification	C
4	ATS unit call sign Language(s)	IPOH Tower English
5	Transition altitude	11000FT
6	Remarks	Nil

WMKI AD 2.18 ATS COMMUNICATION FACILITIES

Service Designation	ID	Frequency	Hours of operation	Remarks
1	2	3	4	5
SMC	IPOH GROUND	121.6MHz	2300 - 1300	Nil
TWR	IPOH TOWER	122.1MHz *121.5MHz	2300 - 1300	* Emergency

WMKI AD 2.19 RADIO NAVIGATION AND LANDING AIDS

Type of aid	ID	Frequency	Hours of operation	Coordinates	Elevation (M)	Remarks
1	2	3	4	5	6	7
L	IP	320KHz	H24	043413.8N 1010604.4E	72	
ILS/LOC	IPO	110.5 MHz		043436.5N 1010559.2E	35	-
GP/DME	-	329.6MHz CH42X		043347.4N 1010522.7E	43	-
VOR/DME	VIH	117.3MHz CH120X		043425.0N 1010538.1E	35.7	-
VOR	VPS	112.8MHz		042853.0N 1010055.0E	-	-

WMKI AD 2.20 LOCAL TRAFFIC REGULATIONS

1. Local Flying Restrictions

1.1 Uni-directional Runway in used due to hilly terrain

- Landing Runway 04
- Take-off Runway 22

1.2 Local circuit procedure (pattern)

- Left-hand Runway 04 1500 FT QNH or 1000 FT for light aircraft.
- Right-hand Runway 04 1000 FT QNH for helicopter only

2. Special Requirements for Instrument Training Flights:

- a) Pilots intending to carry out Instrument Approach training may be restricted to execute missed approaches at 2000FT. A complete Instrument Approach training will only be available subject to prevailing traffic conditions.
- b) Pilots intending to carry out such training shall provide the information in the remark column of the Flight Plan.
- c) To facilitate ATC separation purposes, training aircraft shall be offered to fly over visual significant reporting points in VMC condition.

3. Light Aircraft Parking Area

A light aircraft parking area situated between TWY A and TWY B and is marked by red line on the tarmac and by red and white triangular markers on the grass area. The following procedures to be followed:

- a) Aircraft shall park in a North West / South East direction with the nose facing the Runway. When parking on the tarmac the tail of the aircraft shall be on the grass area. The wing tip of the aircraft shall confine within the marked area only. Aircraft shall be Pushed-In and Pushed-Out when operating in this area.
- b) Biggest light aircraft parking shall not be greater than C208 / PC6 wingspan. The wing tips separation provided between aircraft on taxiway and light aircraft parking area are for aircraft type wingspan of less than B737-400 and C130H-30 only. Aircraft having longer wingspan than the above type shall exercise caution while taxiing into the apron.

4. Service Road

CAUTION:

No Airside vehicles are allowed to operate on the service Road when Runway or Taxiway Echo is active.

WMKI AD 2.21 NOISE ABATEMENT PROCEDURES**NIL****WMKI AD 2.22 FLIGHT PROCEDURES****DME Arrival Procedures For Ipoh Airport**

RADIAL/ TRACK	NAVAID	DME CHECK POINT	MNM IFR ALTITUDE	AFTER PassingDME/VIH DESCEND toFT on QNH	REMARKS
W532 At 22 DME VIH intercept RDL220/040°	VIH VOR DME	Not Required	7000FT	22 ↓ 3200	Make Standard Instrument Approach or as directed by ATC

2.0 Procedures for VFR Flights within Ipoh CTR

a) Arrivals and Departures

VFR Flights shall comply with the VFR Lanes procedures as per AIP Malaysia ENR section, page 3.5-13 and 3.5-15

b) Transiting Flights

VFR Flights transiting Ipoh CTR via Teluk Intan / Beruas shall track via West of Perak River. Position report shall be made at positions Abeam of Kg. Gajah and Abeam of Kg. Bota Kanan. Aircraft may be instructed to hold over Beruas or Kg. Gajah or to operate at 1000 FT for traffic separation between arriving or departing aircraft.

WMKI AD 2.23 ADDITIONAL INFORMATION

- Pilot to exercise caution on birds concentration area in the vicinity of approach Runway 04.

WMKI AD 2.24 NEW CHARTS RELATED TO IPOH SULTAN AZLAN SHAH AIRPORT

Chart Name	Page
AERODROME CHART – ICAO	APPENDIX B
AERODROME GROUND MOVEMENT CHART – ICAO	APPENDIX C
AERODROME PARKING / DOCKING CHART – ICAO	APPENDIX D
ATS ROUTE W545	APPENDIX E 1
IPOH CONTROL ZONE AND IFR HOLDING AREAS CHART	APPENDIX E 2
INSTRUMENT APPROACH CHART – ICAO – RWY 04 ILSz / LOCz	APPENDIX F-1
INSTRUMENT APPROACH CHART – ICAO – RWY 04 ILSy / LOCy (13 DME ARC)	APPENDIX F-2
INSTRUMENT APPROACH CHART – ICAO – RWY 04 ILSx / LOCx	APPENDIX F-3
INSTRUMENT APPROACH CHART – ICAO – RWY 04 VORz	APPENDIX F-4
INSTRUMENT APPROACH CHART – ICAO – RWY 04 VORy (13 DME ARC)	APPENDIX F-5
INSTRUMENT APPROACH CHART – ICAO – RWY 04 VORx	APPENDIX F-6
STANDARD ARRIVAL CHART (RNAV) – INSTRUMENT – ICAO – RWY 04	APPENDIX F-7
STANDARD DEPARTURE CHART – INSTRUMENT – ICAO – DEPARTURES RWY 22	APPENDIX F-8
STANDARD DEPARTURE (RNAV) CHART–INSTRUMENT–ICAO–DEPARTURES RWY 22	APPENDIX F-9

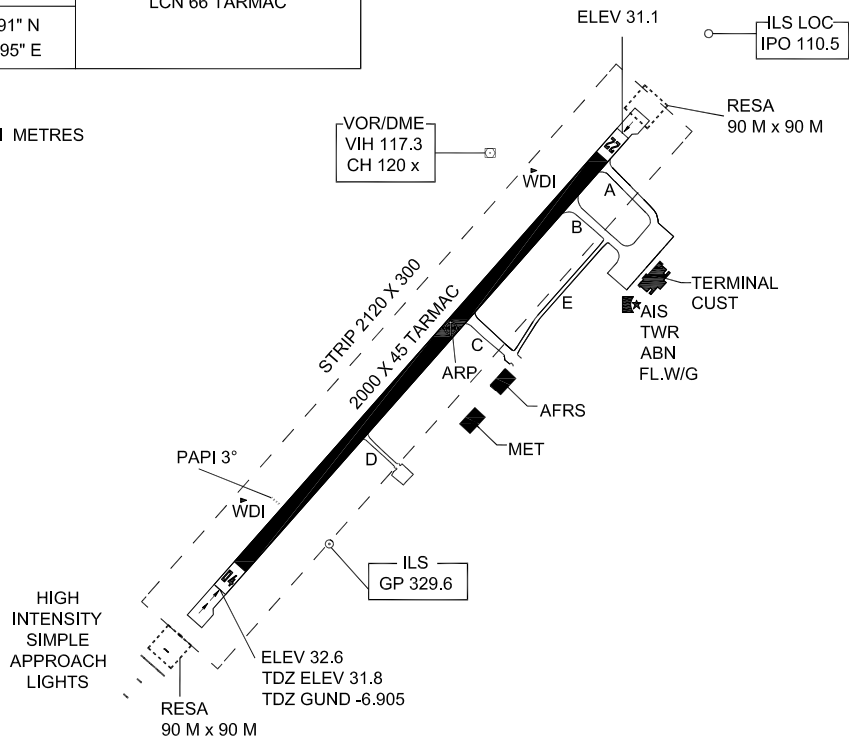
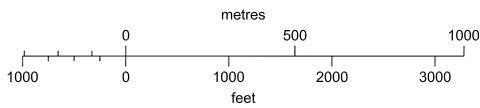
AERODROME CHART - ICAO 04°34'09"N 101°05'35"E ELEV 31M

TWR 122.1
SMC 121.6

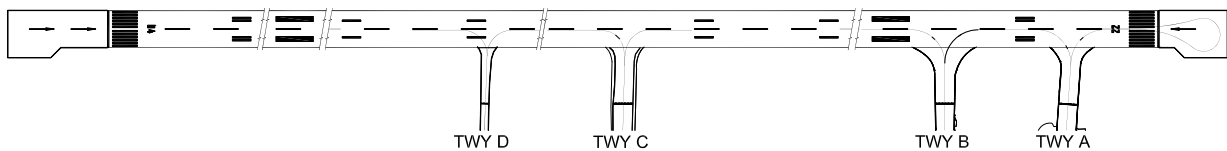
IPOH/
SULTAN AZLAN SHAH
AIRPORT

RWY	DIRECTION	THR	BEARING STRENGTH
04	040°	04°33'42.92" N 101°05'12.25" E	LCN 66 TARMAC
22	220°	04°34'26.91" N 101°05'50.95" E	

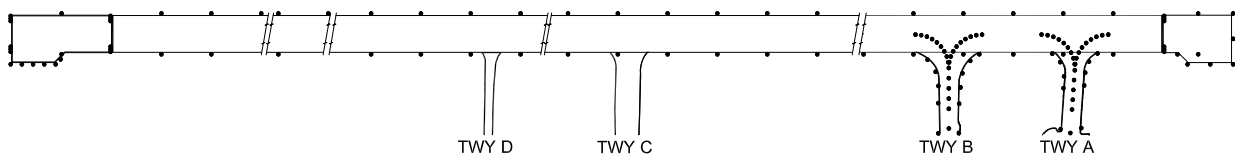
ELEVATIONS AND DIMENSIONS IN METRES
BEARINGS ARE MAGNETIC



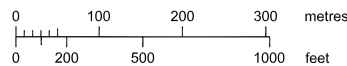
MARKING AND LIGHTINGS



MARKING AIDS RWY 04 / 22 AND EXIT TWY



LIGHTING AIDS RWY 04 / 22 AND EXIT TWY



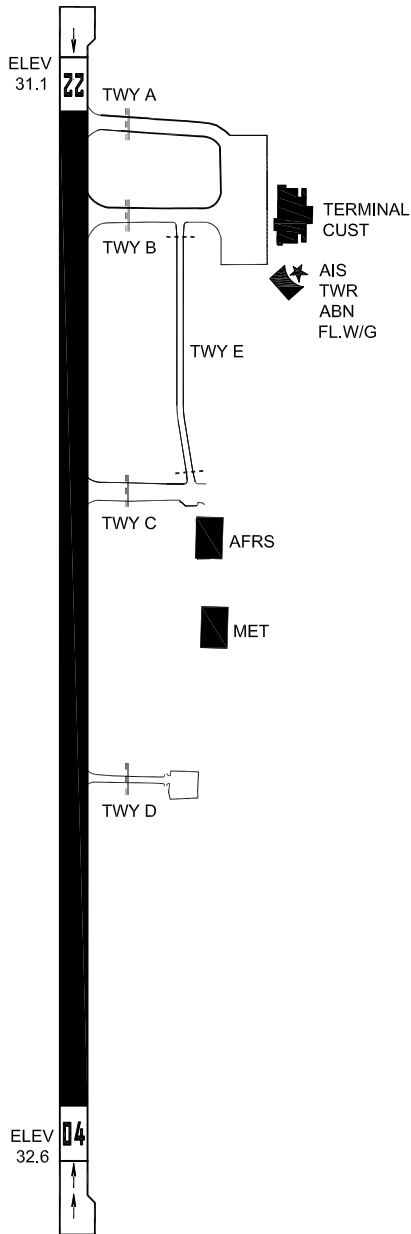
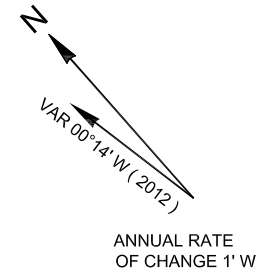
AERODROME GROUND
MOVEMENT CHART - ICAO

APRON ELEV 32.3M

TWR 122.1
SMC 121.6

IPOH/
SULTAN AZLAN SHAH
AIRPORT

ELEVATIONS AND DIMENSIONS IN METRES
BEARINGS ARE MAGNETIC

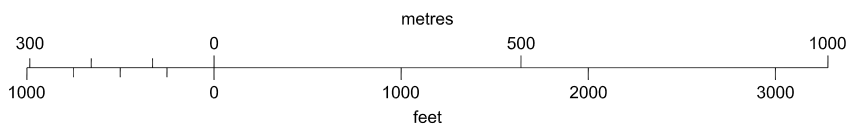


TAXIWAYS A & B 24 m WIDE
TAXIWAY C 23 m WIDE
TAXIWAY D 10.3 m WIDE
TAXIWAY E 10.5 m WIDE

BEARING STRENGTH TWY A & B
PCN 51 F / A / W / T
ASPHALT FLEXIBLE

TAXIWAY EDGE LIGHTS
ON ALL TAXIWAYS
EXCEPT TAXIWAY D

TAXIWAY CENTRELINE LIGHTS
ON A, B, C, E



LEGEND	
RUNWAY-HOLDING POSITION	=====
INTERMEDIATE HOLDING POSITION	-----

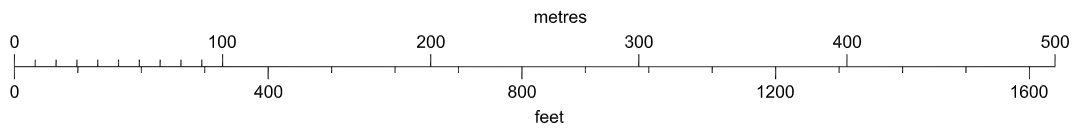
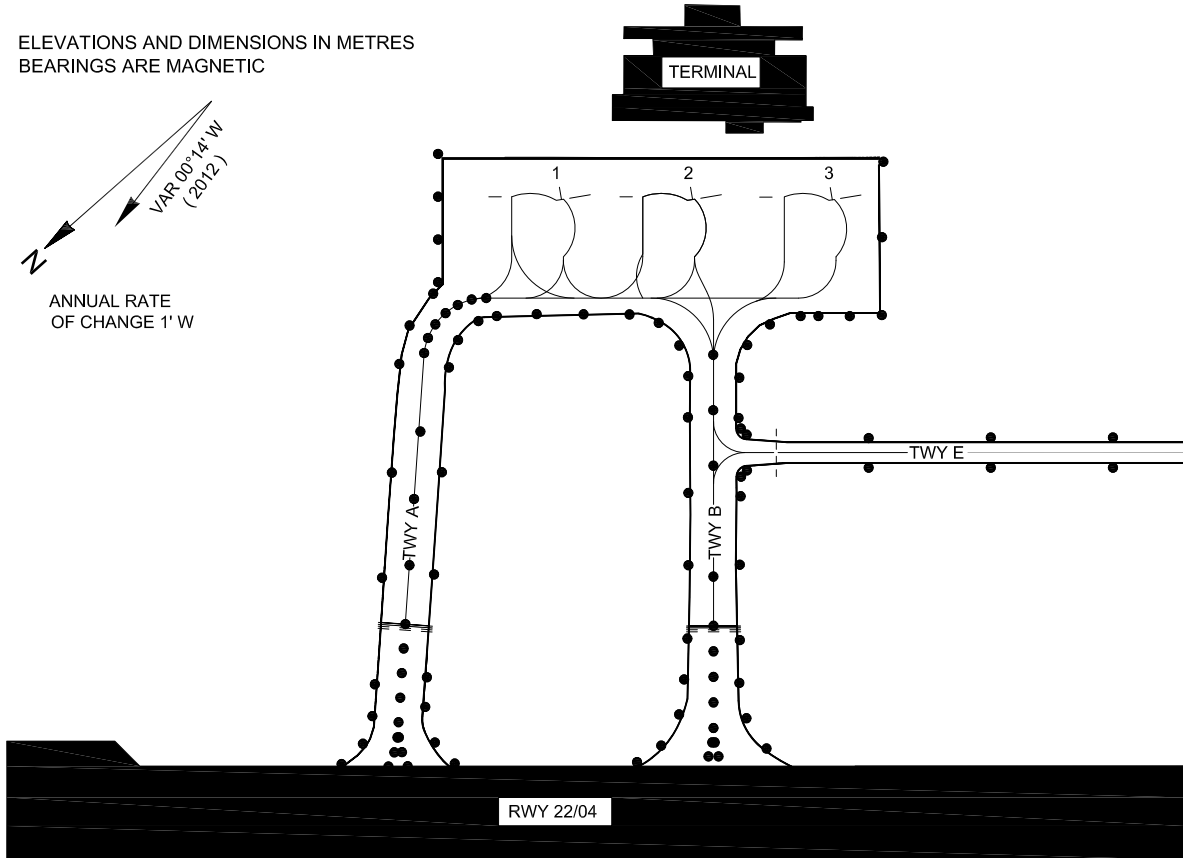
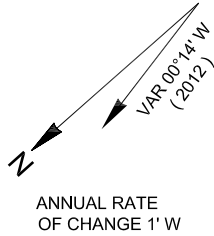
AERODROME PARKING / DOCKING CHART - ICAO

APRON ELEV 32.3M

TWR 122.1
SMC 121.6

IPOH/
SULTAN AZLAN SHAH
AIRPORT

ELEVATIONS AND DIMENSIONS IN METRES
BEARINGS ARE MAGNETIC

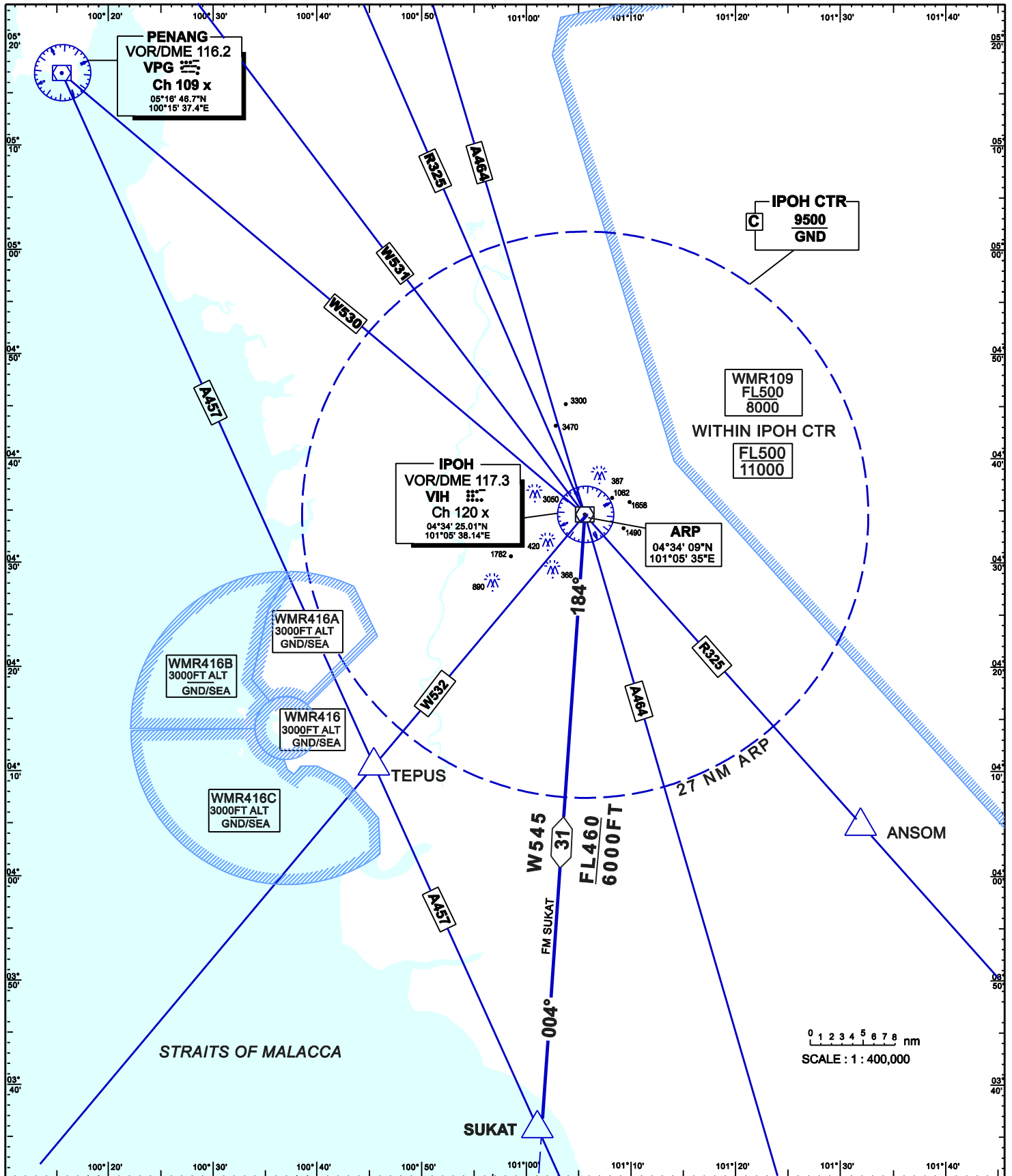


LEGEND	
AIRCRAFT STAND	3
TAXIWAY LIGHT	●
RUNWAY-HOLDING POSITION	▬▬▬
INTERMEDIATE HOLDING POSITION	----

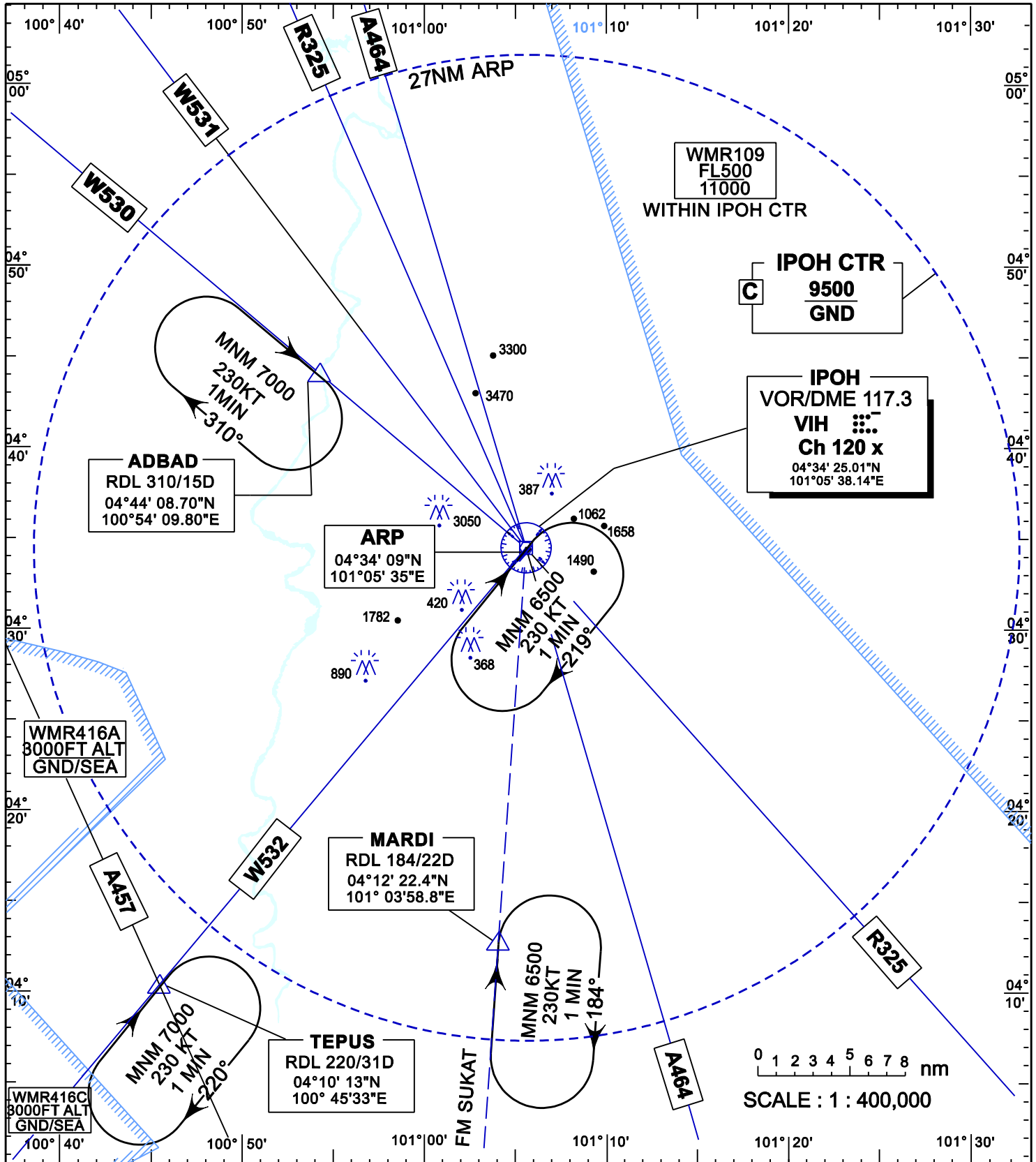
INS COORDINATES FOR AIRCRAFT STANDS	SURFACE & STRENGTH	AIRCRAFT TYPE
1 04° 34' 15.934" N 101° 05' 54.070" E	PCN 105 R / A / W / T	B737-800 (PIPO)
2 04° 34' 14.397" N 101° 05' 52.717" E	PCN 115 R / A / W / T	B737-800 (PIPO)
3 04° 34' 12.763" N 101° 05' 51.272" E	PCN 120 R / A / W / T	B737-800 (PIPO)

NEW ATS ROUTE W545

APPENDIX E - 1



IPOH CONTROL ZONE AND HOLDING AREAS



**INSTRUMENT
APPROACH
CHART- ICAO**

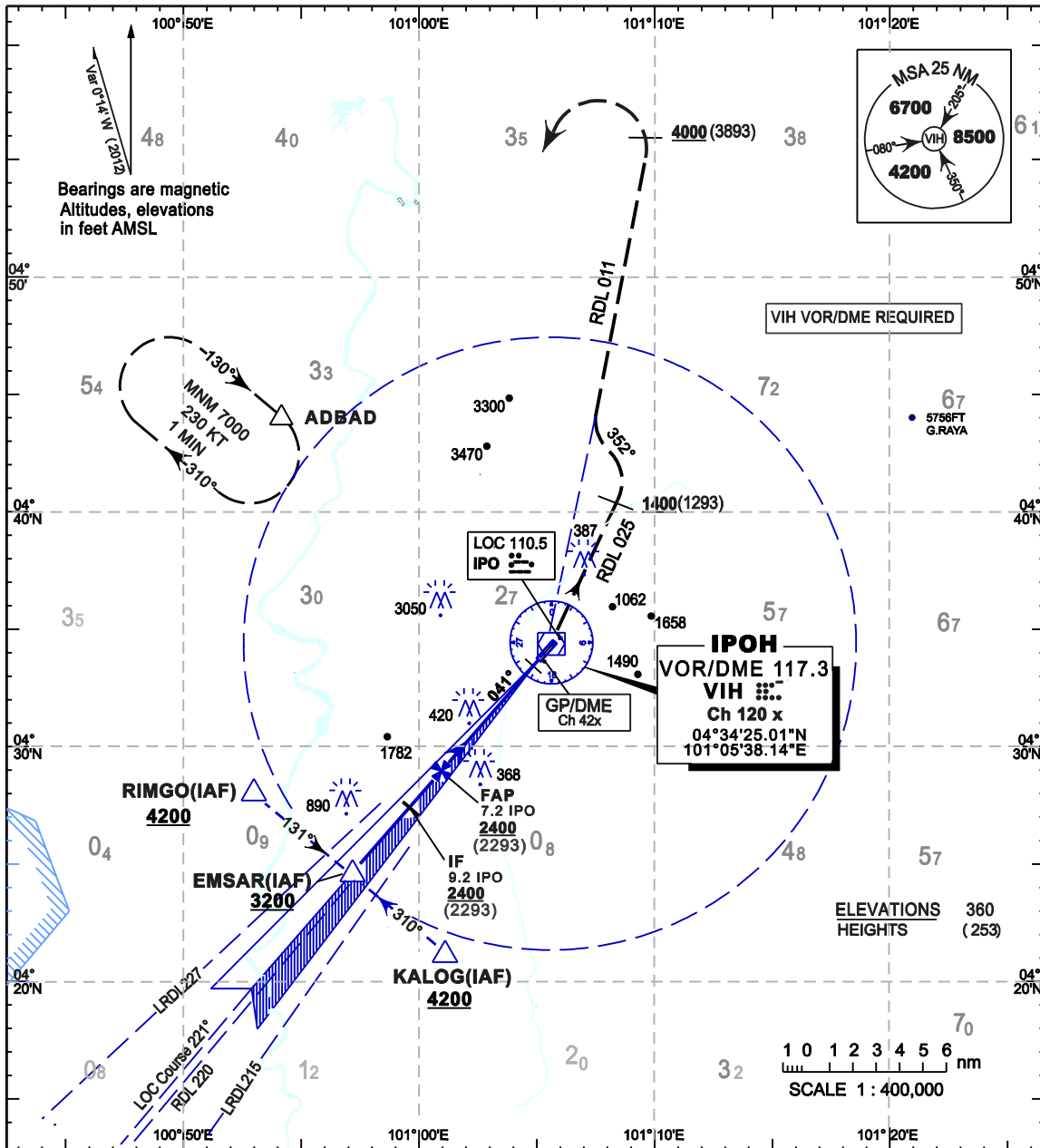
AERODROME ELEV 102FT
HEIGHTS RELATED TO
THR RWY 04 - ELEV 107FT
TRANSITION ALT 11000FT

IPOH/SULTAN AZLAN SHAH

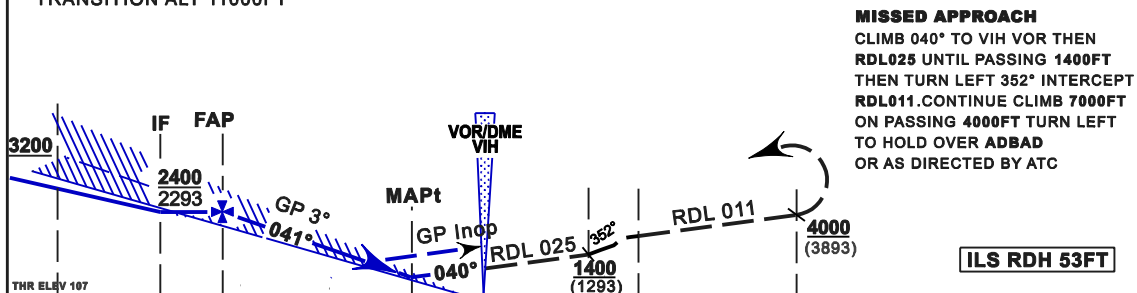
RWY04

ILS z / LOC z
(From STAR)

TWR 122.1
SMC 121.6



TRANSITION ALT 11000FT



THR ELEV 107
NM to/From IPO
NM to/From VIH VOR

OCA/H	A	B	C	D				
CAT I	365(258)	377(270)	385(278)	396(289)				
GP INOP	500(393) / 1.5 IPO (2.2 VIH)							
CIRCLING	700(593)/1NM	not permitted						
ALTITUDE / HEIGHT ON FINAL APPROACH								
DME(IPO)	7.13	6.0	5.0	4.0	3.0	2.0	1.0	0.74
ALT(HGT)	2400(2293)	2040(1933)	1730(1623)	1400(1293)	1090(983)	770(663)	450(343)	365(258)

KTS.	70	90	120	150
FAF - MAPt min:sec	3:22	2:37	1:58	1:34
Rate of Descend ft/min	370	480	640	800

IPOH/SULTAN AZLAN SHAH

PENINSULAR MALAYSIA

RWY04

ILS z / LOC z

AERONAUTICAL DATA TABULATION

ILS z / LOC z RWY 04

Fix/point	Coordinates
LOC IPO 110.5MHZ	04°34' 36.5"N 101°05' 59.2"E
GP/DME 329.6 MHZ/CH42X	04°33' 47.4"N 101°05' 22.7"E
VIH VOR/DME	04°34' 25.01"N 101°05' 38.14"E
THR RWY04	04°33'42.92"N 101°05'12.47"E
FAP 7.2D IPO	04°28'28.4"N 101°00'35.5"E
IF 9.2D IPO	04°26'58.0"N 100°59'16.0"E
ADBAD RDL310/D15 VIH	04° 44' 08.7"N 100° 54' 09.8"E
RIMGO(IAF) RDL246/D14 VIH	04° 28' 36.3"N 100° 52' 41.8"E
EMSAR(IAF) RDL221/D13 VIH	04° 24' 36.9"N 100° 57' 11.9"E
KALOG(IAF) RDL196/D14 VIH	04° 20' 37.5"N 101° 01' 42.1"E

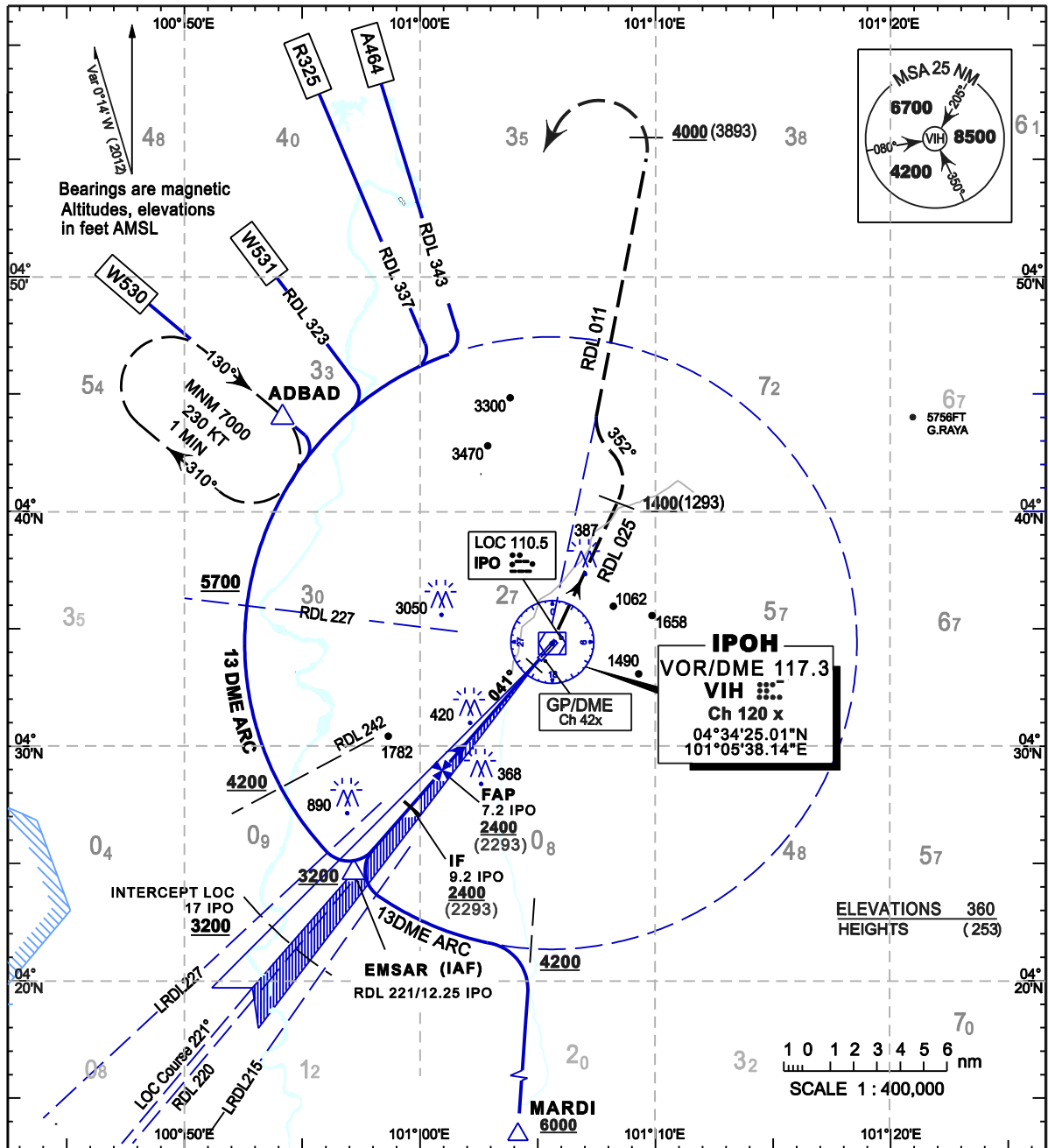
**INSTRUMENT
APPROACH
CHART- ICAO**

AERODROME ELEV 102FT
HEIGHTS RELATED TO
THR RWY 04 - ELEV 107FT
TRANSITION ALT 11000FT

IPOH/SULTAN AZLAN SHAH

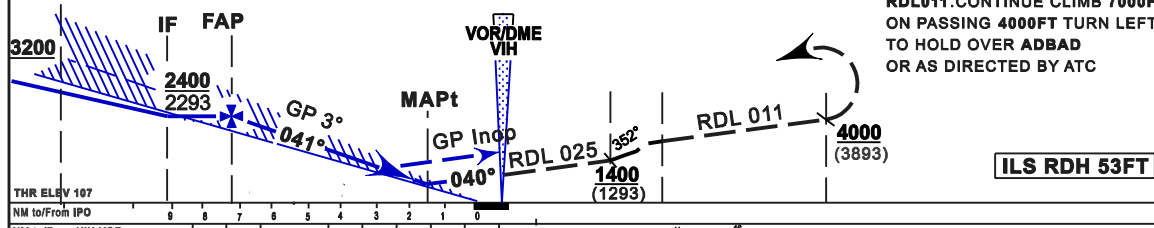
TWR 122.1
 SMC 121.6

RWY04
ILS y / LOC y
(13D ARC)



TRANSITION ALT 11000FT

MISSED APPROACH
 CLIMB 040° TO VIH VOR THEN
 RDL025 UNTIL PASSING 1400FT
 THEN TURN LEFT 352° INTERCEPT
 RDL011. CONTINUE CLIMB 7000FT
 ON PASSING 4000FT TURN LEFT
 TO HOLD OVER ADBAD
 OR AS DIRECTED BY ATC



THR ELEV 107
 NM to/From IPO
 NM to/From VIH VOR

OCA/H	A	B	C	D	KTS.				
CAT I	365(258)	377(270)	385(278)	396(289)	70	90	120	150	
GP INOP	500(393) / 1.5 IPO (2.2 VIH)				FAF - MAPt min:sec	3:22	2:37	1:58	1:34
CIRCLING	700(593)/1NM	not permitted			Rate of Descend ft/min	370	480	640	800
ALTITUDE / HEIGHT ON FINAL APPROACH									
DME(IPO)	7.13	6.0	5.0	4.0	3.0	2.0	1.0	0.74	
ALT(HGT)	2400(2293)	2040(1933)	1730(1623)	1400(1293)	1090(983)	770(663)	450(343)	365(258)	

IPOH/SULTAN AZLAN SHAH
PENINSULAR MALAYSIA
RWY04
ILS Y / LOC Y

AERONAUTICAL DATA TABULATION

ILS Y / LOC Y RWY04

Fix/point	Coordinates
LOC IPO 110.5MHZ	04°34' 36.5"N 101°05' 59.2"E
GP/DME 329.6 MHZ/CH42X	04°33' 47.4"N 101°05' 22.7"E
VIH VOR/DME	04°34' 25.01"N 101°05' 38.14"E
THR RWY04	04°33'42.92"N 101°05'12.47"E
FAP 7.2D IPO	04°28'28.4"N 101°00'35.5"E
IF 9.2D IPO	04°26'58.0"N 100°59'16.0"E
ADBAD RDL310/D15 VIH	04° 44' 08.7"N 100° 54' 09.8"E

IPOH/SULTAN AZLAN SHAH
PENINSULAR MALAYSIA
RWY04
ILS x / LOC x

AERONAUTICAL DATA TABULATION

ILS X / LOC X RWY 04

Fix/point	Coordinates
LOC IPO 110.5MHZ	04°34' 36.5"N 101°05' 59.2"E
GP/DME 329.6 MHZ/CH42X	04°33' 47.4"N 101°05' 22.7"E
VIH VOR/DME	04°34' 25.01"N 101°05' 38.14"E
THR RWY04	04°33'42.92"N 101°05'12.47"E
FAP 7.2D IPO	04°28'28.4"N 101°00'35.5"E
IF 9.2D IPO	04°26'58.0"N 100°59'16.0"E

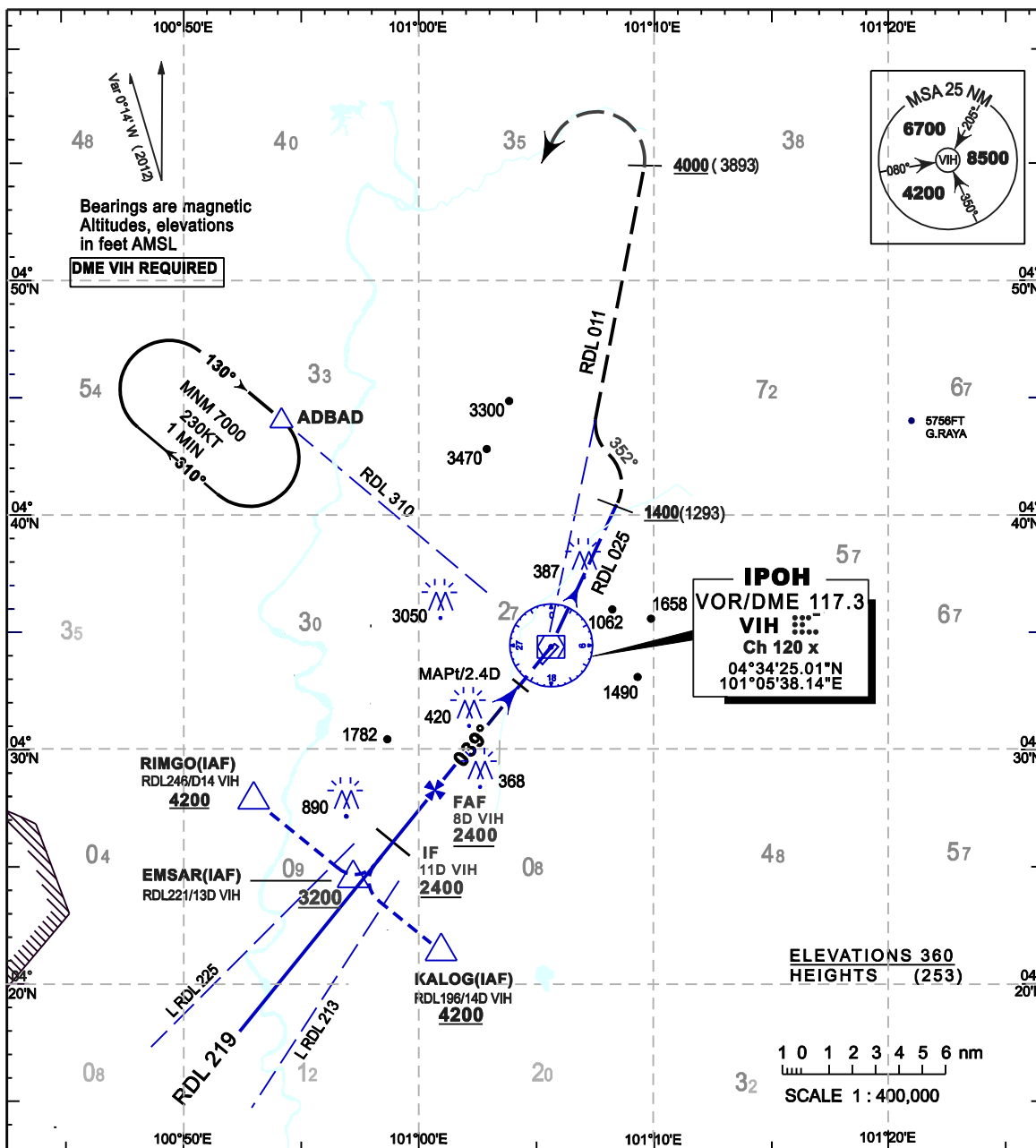
**INSTRUMENT
APPROACH
CHART-ICAO**

**AERODROME ELEV 102FT
HEIGHTS RELATED TO
THR RWY 04 - ELEV 107FT**

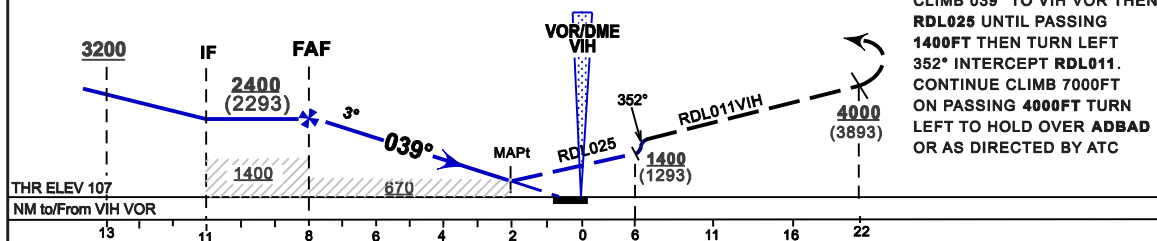
TWR 122.1
SMC 121.6

IPOH/SULTAN AZLAN SHAH

**RWY04
VOR z**



USE QNH



OCA/H	A	B	C	D
VOR/DME	670(563) / 2.4DME			
Circling / Visibility	700(593)/1NM	not permitted		

KTS.	70	90	120	150
FAF - MAPT min:sec	3:22	2:37	1:58	1:34
Rate of Descend ft/min	370	480	640	800

ALTITUDE / HEIGHT ON FINAL APPROACH								
DME FM VIH		7.0	6.0	5.0	4.0	3.0	2.4	
ALT(HGT)		2400(2293)	2060(2953)	1740(1633)	1420(1313)	1100(993)	790(683)	670(563)

IPOH/SULTAN AZLAN SHAH

PENINSULAR MALAYSIA

RWY04

VOR z

AERONAUTICAL DATA TABULATION

VOR Z RWY 04

Fix/point	Coordinates
VIH VOR/DME	04°34' 25.01"N 101°05' 38.14"E
THR RWY04	04°33'42.92"N 101°05'12.47"E
FAF 8D VIH	04°28'19.6"N 101°00'43.2"E
IF 11D VIH	04°25'59.0"N 100°58'49.8"E
ADBAD RDL310/D15 VIH	04° 44' 08.7"N 100° 54' 09.8"E
RIMGO(IAF) RDL242/D14 VIH	04° 28' 36.3"N 100° 52' 41.8"E
EMSAR(IAF) RDL221/D13 VIH	04° 24' 36.9"N 100° 57' 11.9"E
KALOG(IAF) RDL196/D14 VIH	04° 20' 37.5"N 101° 01' 42.1"E

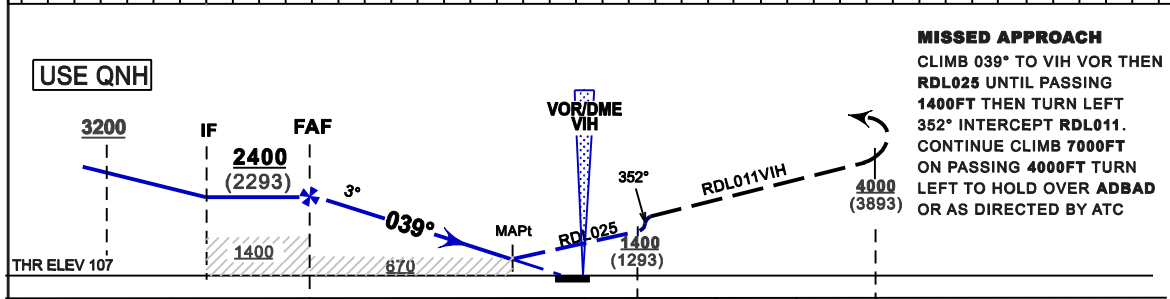
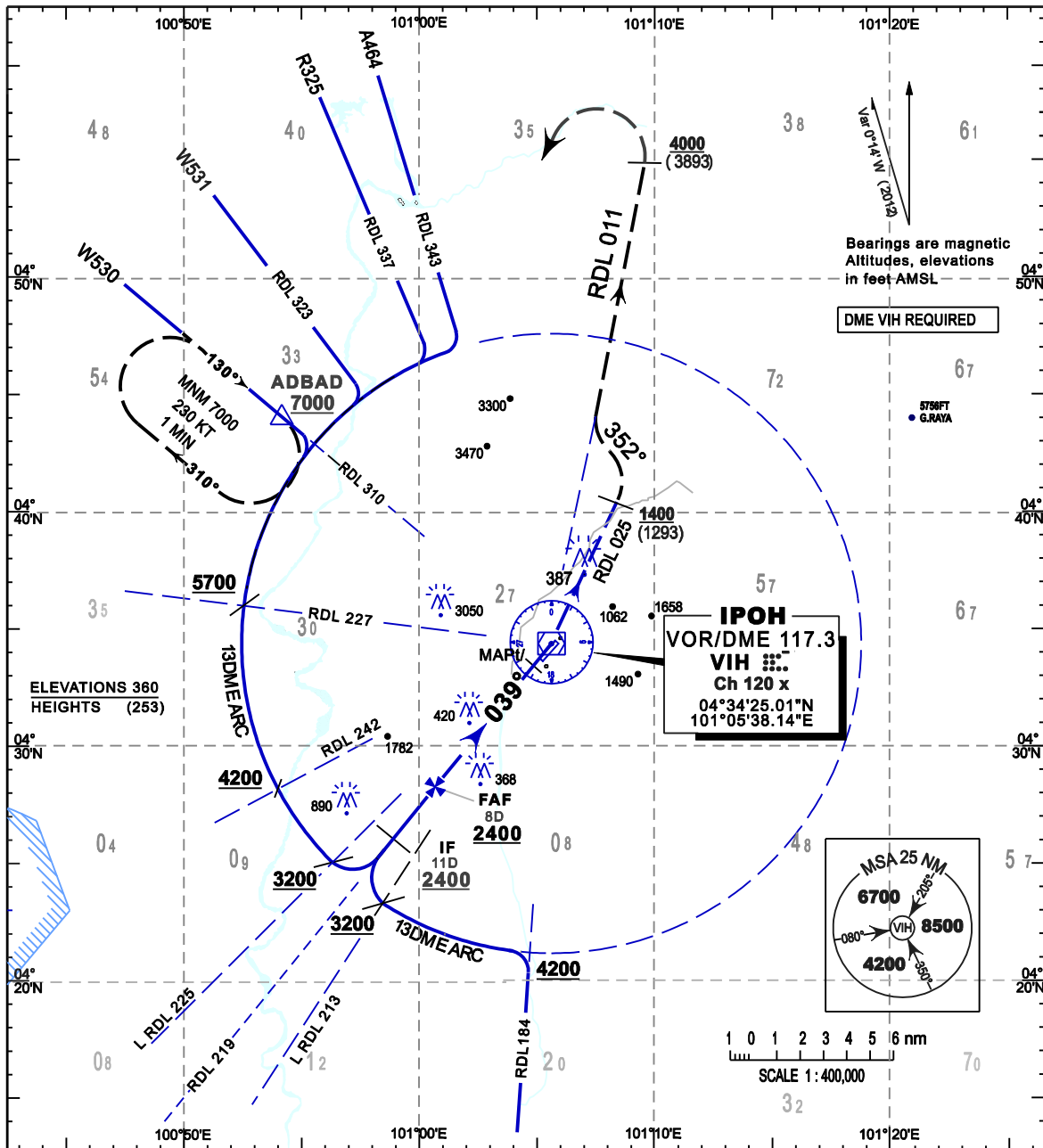
**INSTRUMENT
APPROACH
CHART- ICAO**

AD ELEV 102
HEIGHTS RELATED TO
THR RWY 04 - ELEV 107
TRANSITION LEVEL: FL 130
TRANSITION ALT: 11000

TWR 122.1
SMC 121.6

IPOH/SULTAN AZLAN SHAH

**RWY04
VOR y
(13DME ARC)**



USE QNH

THR ELEV 107

NM to/FM VOR

OCA/H	A	B	C	D
VOR/DME	670(563) / 2.4DME			
Circling /Visibility	700(593)/1NM	not permitted		

KTS	70	90	120	150
FAF-MAPt min:sec	3:22	2:37	1:58	1:34
Rate of Des. ft/min	370	480	640	800

ALTITUDE / HEIGHT ON FINAL APPROACH							
DME FM VIH	8.0	7.0	6.0	5.0	4.0	3.0	2.4
ALT(HGT)	2400(2293)	2060(2953)	1740(1633)	1420(1313)	1100(993)	790(683)	670(563)

IPOH/SULTAN AZLAN SHAH

RWY04

VOR y

(13DME ARC)

AERONAUTICAL DATA TABULATION

VOR y RWY 04

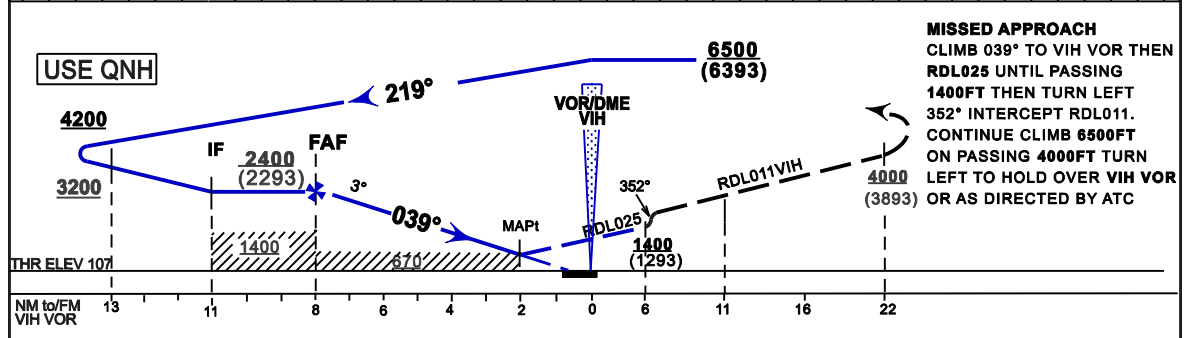
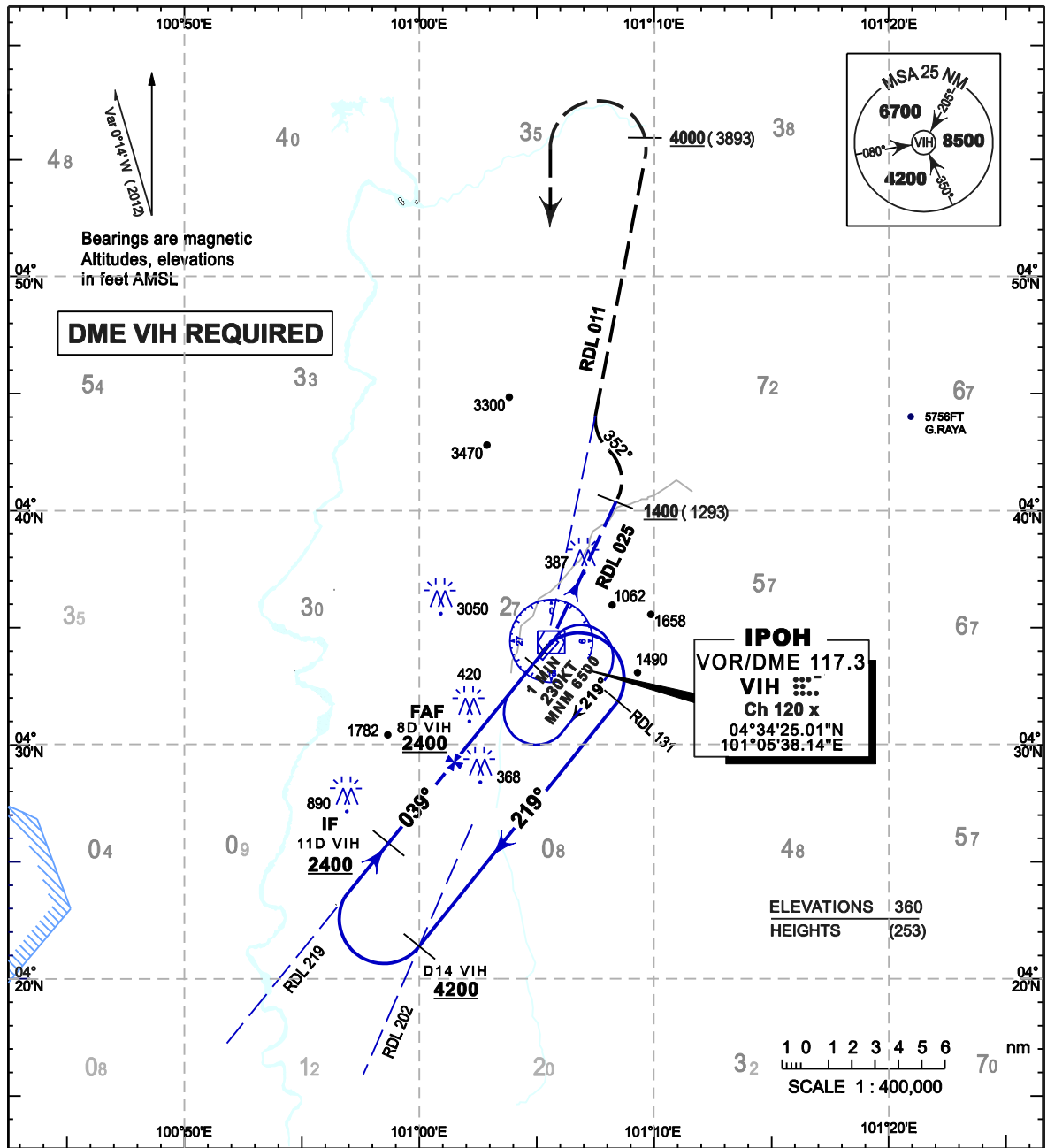
Fix/point	Coordinates
VIH VOR/DME	04°34' 25.01"N 101°05' 38.14"E
THR RWY04	04°33'42.92"N 101°05'12.47"E
FAF 8D VIH	04°28'19.6"N 101°00'43.2"E
IF 11D VIH	04°25'59.0"N 100°58'49.8"E
ADBAD RDL310/D15 VIH	04° 44' 08.7"N 100° 54' 09.8"E

**INSTRUMENT
APPROACH
CHART- ICAO**

AERODROME ELEV 102FT
HEIGHTS RELATED TO
THR RWY 04 - ELEV 107FT

TWR 122.1
SMC 121.6

**IPOH/SULTAN AZLAN SHAH
RWY04
VOR x**



OCA/H	A	B	C	D	KTS.	70	90	120	150
VOR/DME	670(563) / 2.4DME				FAF-MAPT min:sec	3:22	2:37	1:58	1:34
Circling/ Visibility	700(593)/1NM		not permitted		Rate of Des. ft/min	370	480	640	800
ALTITUDE / HEIGHT ON FINAL APPROACH									
DME FM VIH	8	7.0	6.0	5.0	4.0	3.0	2.4		
ALT(HGT)	2400(2293)	2400(2293)	2040(2293)	1730(1623)	1400(1293)	1090(983)	670(563)		

IPOH/SULTAN AZLAN SHAH**RWY04****VOR X****AERONAUTICAL DATA TABULATION****VOR X RWY 04**

Fix/point	Coordinates
VIH VOR/DME	04°34' 25.01"N 101°05' 38.14"E
THR RWY04	04°33'42.92"N 101°05'12.47"E
FAF 8D VIH	04°28'19.6"N 101°00'43.2"E
IF 11D VIH	04°25'59.0"N 100°58'49.8"E

**STANDARD ARRIVAL CHART
INSTRUMENT (STAR) - ICAO**

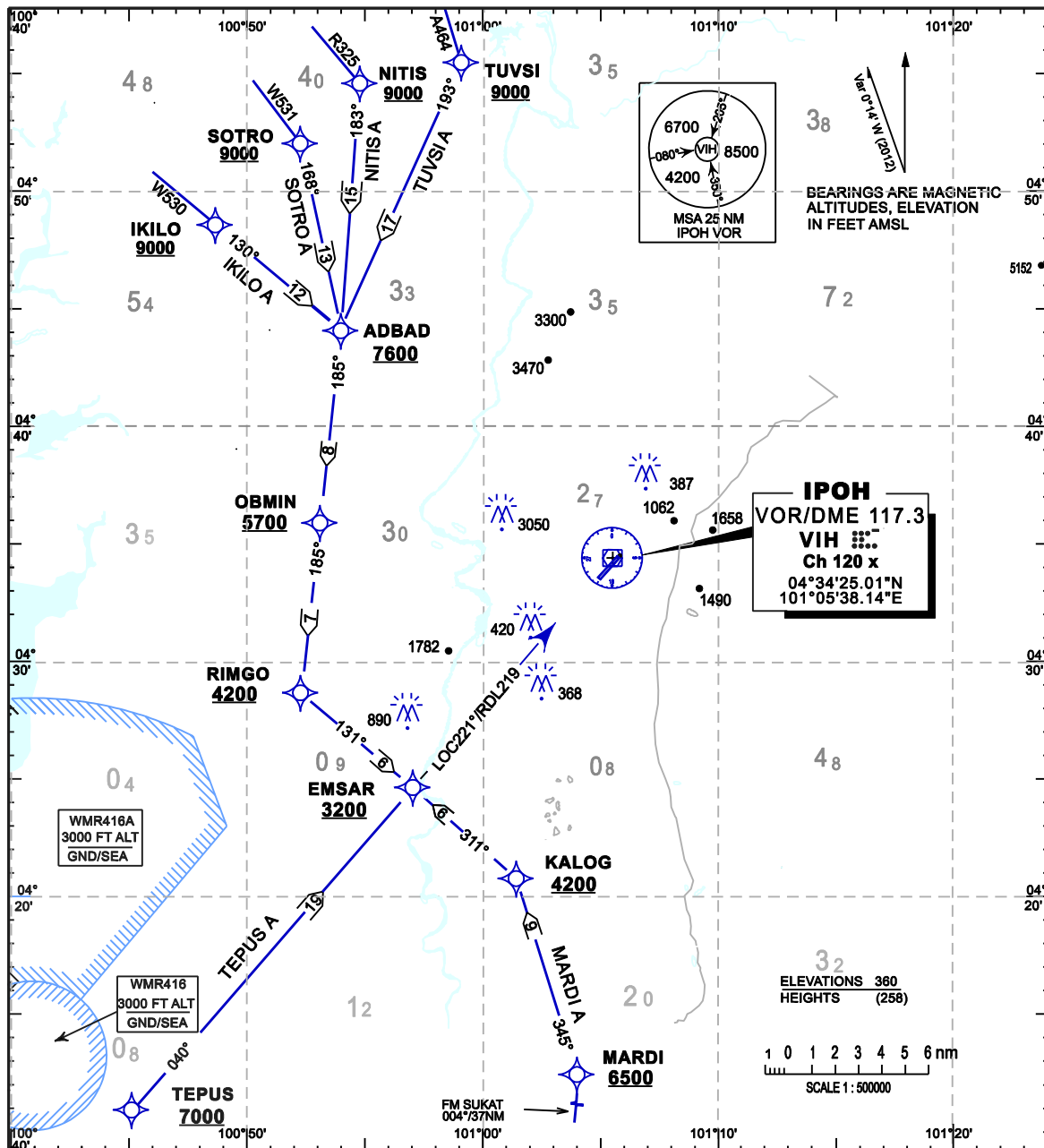
TRANSITION LEVEL: FL 130
TRANSITION ALT: 11000ft

TWR 122.1
SMC 121.6

IPOH/SULTAN AZLAN SHAH

RWY04 (RNAV)

**IKILO A SOTRO A NITIS A
TUVSI A TEPUS A MARDI A**



IKILO ALPHA ARRIVAL

- * From IKILO Track 130° to ADBAD
- * Turn Right Track 185° to OBMIN then to RIMGO
- * From RIMGO Track 131° to EMSAR

SOTRO ALPHA ARRIVAL

- * From SOTRO Track 168° to ADBAD
- * Turn Right Track 185° to OBMIN then to RIMGO
- * From RIMGO Track 131° to EMSAR

TEPUS ALPHA ARRIVAL

- * From TEPUS Track 040° to EMSAR

NITIS ALPHA ARRIVAL

- * From NITIS Track 183° to ADBAD
- * Then 185° to OBMIN and RIMGO
- * From RIMGO Track 131° to EMSAR

TUVSI ALPHA ARRIVAL

- * From TUVSI Track 193° to ADBAD
- * Then Track 185° to OBMIN then to RIMGO
- * From RIMGO Track 131° to EMSAR

MARDI ALPHA ARRIVAL

- * From SUKAT Track 004° to MARDI
- * From MARDI Track 345° to KALOG
- * From KALOG Track 311° to EMSAR

ARRIVAL

- * At EMSAR intercept LOC or RDL 219 VIH VOR

COMMUNICATION FAILURE

- *SQUWK A7600
- IF UNDER PILOT NAVIGATION CONTINUE ON STAR AND LAND

IPOH/SULTAN AZLAN SHAH**RWY04 (RNAV)**

IKILO A SOTRO A NITIS A

TUVSI A TEPUS A MARDI A

AERONAUTICAL DATA TABULATION

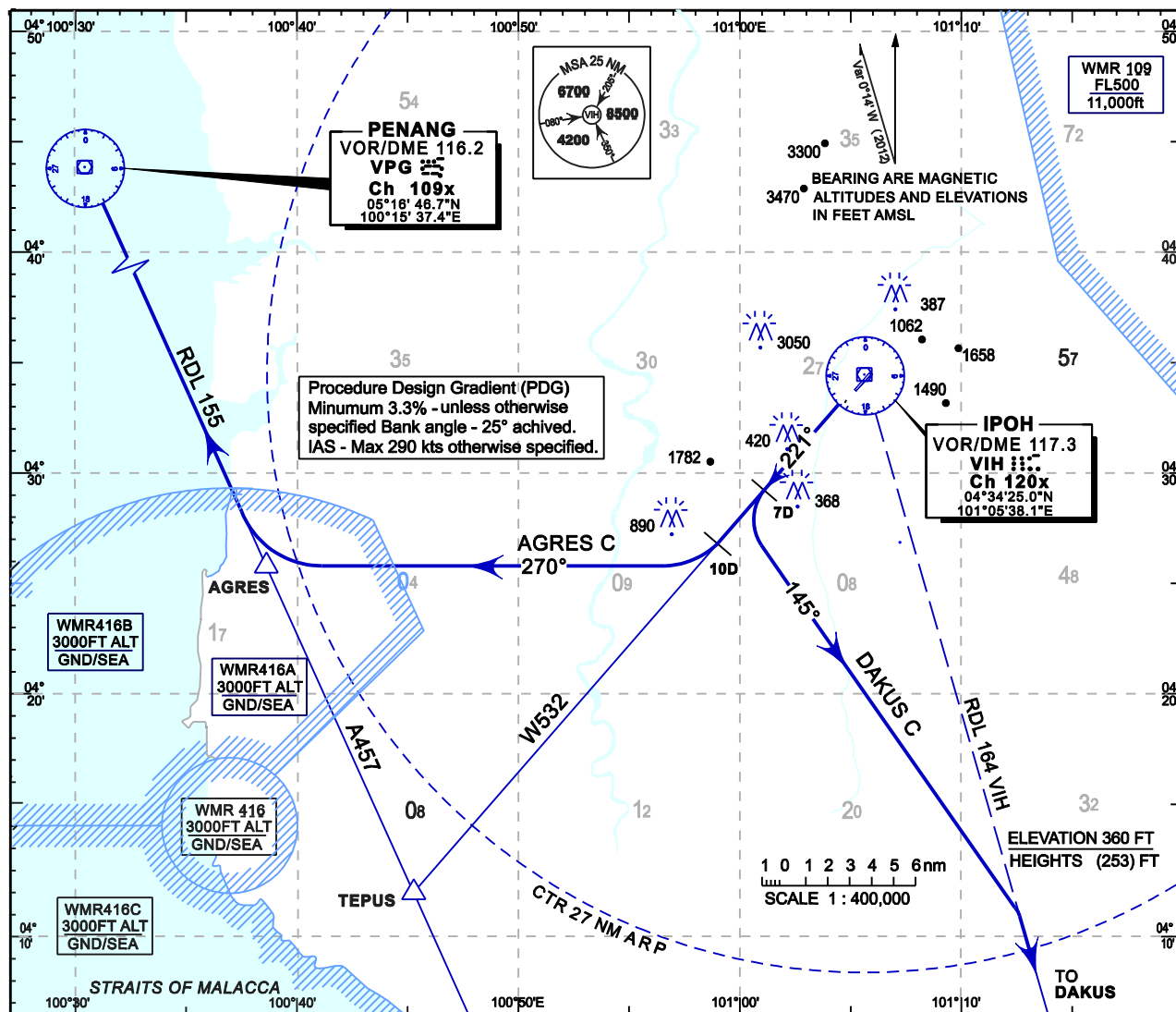
STAR (RNAV) RWY 04		
Fix/point	Reference to VIH VOR/DME	Coordinates
TUVSI	RDL343/D27	05° 00' 09.7"N 100° 59' 59.3"E
NITIS	RDL337/D27	04° 59' 04.8"N 100° 55' 00.0" E
SOTRO	RDL323/D27	04° 55' 54.4" N 100° 49' 26.4" E
ADBAD	RDL310/D15	04° 44' 08.7" N 100° 54' 09.8" E
RIMGO(IAF)	RDL246/D14	04° 28' 36.3" N 100° 52' 41.8" E
EMSAR(IAF)	RDL221/D13	04° 24' 36.9" N 100° 57' 11.9" E
KALOG(IAF)	RDL196/D14	04° 20' 37.5" N 101° 01' 42.1" E
OBMIN	RDL277/D12	04° 35' 55.3" N 100° 53' 23.2" E
MARDI	RDL184/D22	04° 12' 22.4" N 101° 03' 58.8" E
TEPUS	RDL220/D31	04° 10' 13.0" N 100° 45' 33.0" E
IKILO	RDL310/D30	04° 10' 09.0" N 100° 42' 30.5" E

**STANDARD DEPARTURE CHART
INSTRUMENT (SID) - ICAO**

IPOH/SULTAN AZLAN SHAH

TRANSITION ALTITUDE 11,000ft
TWR 122.1
SMC 121.6

**RWY 22
DAKUS C AGRES C**



DAKUS CHARLIE DEPARTURE

TRACK 221°
PDG 4.8% UP TO 5500 THEN 3.3%
AT 7 DME VIH, TURN LEFT TRACK 145° TO
INTERCEPT RDL 164 VIH TO DAKUS / A464

AGRES CHARLIE DEPARTURE

TRACK 221°
AT 10 DME VIH, TURN RIGHT TRACK 270° TO INTERCEPT
RDL 155 VPG VOR / A457

COMMUNICATION FAILURE :

- * SQUAWK 7600
- * IF UNDER PILOT NAVIGATION MAINTAIN LAST ASSIGNED LEVEL FOR 3 MINUTES, IF NO ONWARD CLEARANCE IS RECEIVED SUBSEQUENTLY CLIMB TO COMPLY WITH SID
- * IF BELOW 'MSA', CLIMB TO 'MSA', THEN TRACK TO INTERCEPT CLEARED OR PREVIOUSLY ASSIGNED SID TO DESTINATION.

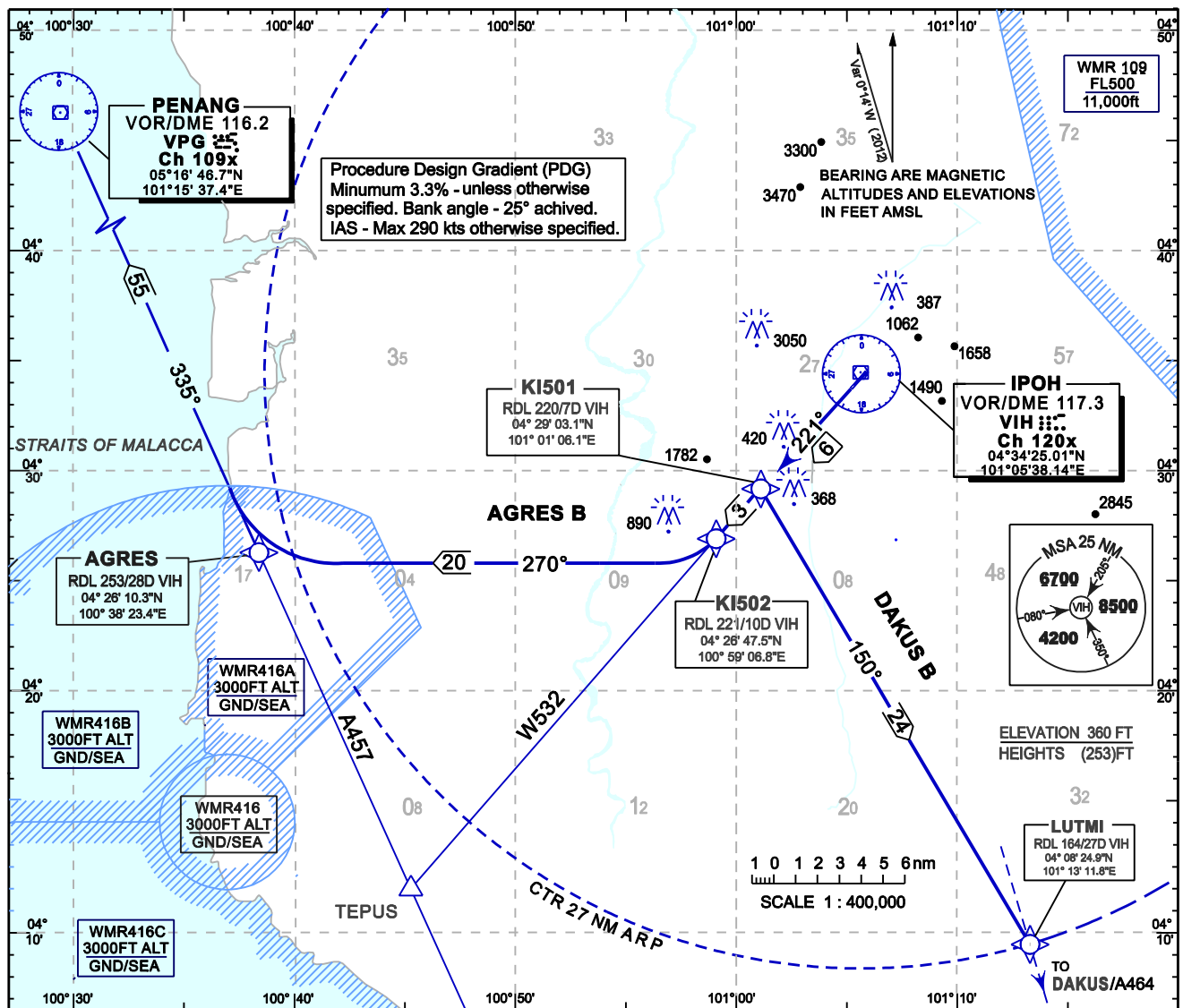
**STANDARD DEPARTURE CHART
INSTRUMENT (SID) - ICAO**

IPOH/SULTAN AZLAN SHAH

**RWY 22 (RNAV)
DAKUS B AGRES B**

TRANSITION ALTITUDE
11,000ft

TWR 122.1
SMC 121.6



DAKUS BRAVO DEPARTURE

TRACK 221°
PDG 4.8% UP TO 5500 THEN 3.3%
AT KI501, TURN LEFT TRACK 150° TO LUTMI
THEN TRACK 164° TO DAKUS / A464

AGRES BRAVO DEPARTURE

TRACK 221°
AT KI502, TURN RIGHT TRACK 270° TO AGRES
THEN TURN RIGHT TRACK 335° TO VPG / A457

COMMUNICATION FAILURE :

- * SQUAWK 7600
- * IF UNDER PILOT NAVIGATION MAINTAIN LAST ASSIGNED LEVEL FOR 3 MINUTES, IF NO ONWARD CLEARANCE IS RECEIVED SUBSEQUENTLY CLIMB TO COMPLY WITH SID
- * IF BELOW 'MSA', CLIMB TO 'MSA', THEN TRACK TO INTERCEPT CLEARED OR PREVIOUSLY ASSIGNED SID TO DESTINATION.