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AIRAC AIP
12/2024

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**ALOR SETAR / SULTAN ABDUL HALIM AIRPORT (WMKA)
REFURBISHMENT OF INSTRUMENT LANDING SYSTEM (ILS)
RADIO NAVIGATION AID AND REVISED INSTRUMENT APPROACH PROCEDURES**

1 INTRODUCTION

- 1.1 A new Instrument Landing System (ILS) radio navigation aid has been installed at Alor Setar Airport and both GP/DME and Localizer (LOC) equipment are located on the same site within the airfield. Along with this refurbishment, all Instrument Flight Procedure for Alor Setar Airport were reviewed to the latest obstacle data.
- 1.2 This AIP Supplement is to notify the aviation industry the changes to the navigational aids, aerodrome obstacle and Instrument Flight Procedures (IFP) for Sultan Abdul Halim Airport (WMKA).

2 LOCATION AND DETAILS OF NEW RADIO NAVIGATION AID

- 2.1 The location and details of the new replaced navigation aids are as follows:

Type of aid, CAT of ILS	ID	Frequency	Hours of operation	Position of transmitting antenna coordinates	Elevation of DME antenna	Remarks
1	2	3	4	5	6	7
ILS/LOC	IAS	111.7 MHz	H24	061204.91N 1002432.31E	25.82 FT / 7.87 M	LOC - 25 Watt
GP/DME	IAS	333.5 MHz 54X		061054.66N 1002333.32E	60.10 FT / 18.32 M	RDH: 50 FT GP - 5 Watt DME - 100 Watt

3 LATEST AND UPDATED OBSTACLE DATA

3.1 The location and details of the updated obstacle data are as follows:

Elevation of Obstacles within 10 NM of ARP	
Telecom Tower 543FT (165.50M) Red Obstruction Lights	060727.8N 1002203.2E
Hill - Gunung Keriang 752FT (229M) Not Lighted	061115.1N 1001954.0E
Hill - Bukit Tinggi 505FT (154M) Not Lighted	061240.4N 1002543.9E
Hill - Bukit Tunjang 997FT (303.87M) Not Lighted	061803.6N 1002248.1E
Hill - Bukit Payung 1423FT (433.8M) Not Lighted	061701.3N 1002836.4E
Hill - Bukit Sapi 1200FT (384.6M) Not Lighted	061616.4N 1002800.9E
Building - Arkib Negara 148FT (45.11M) Red Obstruction Light	060948.4N 1002212.4E
Building - Mosque 100FT (30.84M) Red Obstruction Lights	061005.0N 1002213.0E
Hill – Bukit Pinang 450 FT (137M)	061139.1N 1002615.1E

4 REVISED INSTRUMENT FLIGHT PROCEDURES

4.1 The new revised Standard Instrument Departure Procedures (SID) charts are as follows:

APPENDIX A-1 STANDARD DEPARTURE CHART - ICAO - RWY 22 TAMOS 1D RIGTO
1D DUBAX 1D SAGEL 1D GUTEB 1D OMBUL 1D AKMIS 1D

APPENDIX A-2 STANDARD DEPARTURE CHART - ICAO - RWY 22 RNAV (GNSS)
TAMOS 1B RIGTO 1B DUBAX 1B SAGEL 1B GUTEB 1B OMBUL 1B
AKMIS 1B

4.2 The new revised Standard Instrument Arrival Procedures (STAR) charts are as follows

APPENDIX B-1 STANDARD ARRIVAL CHART - ICAO - RWY 04 VOR/DME ARC JERAI
1G TAMOS 1G MULOT 1G KARMI 1G

APPENDIX B-2 STANDARD ARRIVAL CHART - ICAO - RWY 04 RNAV (GNSS) PAYAR
1E JERAI 1E TAMOS 1E KARMI 1E MULOT 1E

4.3 The new revised Instrument Approach Procedures charts are as follows:

APPENDIX C-1 INSTRUMENT APPROACH CHART - ICAO - RWY 04 VOR Z
(13 DME ARC)

APPENDIX C-2 INSTRUMENT APPROACH CHART - ICAO - RWY 04 VOR Y
(FROM OVERHEAD VAS VOR)

APPENDIX C-3 INSTRUMENT APPROACH CHART - ICAO - RWY 04 ILS Z OR LOC Z

APPENDIX C-4 INSTRUMENT APPROACH CHART - ICAO - RWY 04 ILS Y OR LOC Y
(FROM OVERHEAD VAS VOR)

APPENDIX C-5 INSTRUMENT APPROACH CHART - ICAO - RWY 04 RNP Z (AR)

APPENDIX C-6 INSTRUMENT APPROACH CHART - ICAO - RWY 04 RNP Y

4.4 The following charts pertaining to Sultan Abdul Halim Airport will be superseded:

AD 2-WMKA-6-1	STANDARD DEPARTURE CHART - ICAO - RWY 22 TAMOS 1D RIGTO 1D DUBAX 1D SAGEL 1D GUTEB 1D OMBUL 1D AKMIS 1D
AD 2-WMKA-6-3	STANDARD DEPARTURE CHART - ICAO - RWY 22 RNAV (GNSS) TAMOS 1B RIGTO 1B DUBAX 1B SAGEL 1B GUTEB 1B OMBUL 1B AKMIS 1B
AD 2-WMKA-7-1	STANDARD ARRIVAL CHART - ICAO - RWY 04 VOR/DME ARC JERAI 1G TAMOS 1G MULOT 1G KARMI 1G
AD 2-WMKA-7-3	STANDARD ARRIVAL CHART - ICAO - RWY 04 RNAV (GNSS) PAYAR 1E JERAI 1E TAMOS 1E KARMI 1E MULOT 1E
AD 2-WMKA-8-1	INSTRUMENT APPROACH CHART - ICAO - RWY 04 VOR Z (13 DME ARC)
AD 2-WMSA-8-3	INSTRUMENT APPROACH CHART - ICAO - RWY 04 VOR Y (FROM OVERHEAD VAS VOR)
AD 2-WMKA-8-5	INSTRUMENT APPROACH CHART - ICAO - RWY 04 ILS Z OR LOC Z
AD 2-WMKA-8-7	INSTRUMENT APPROACH CHART - ICAO - RWY 04 ILS Y OR LOC Y (FROM OVERHEAD VAS VOR)
AD 2-WMKA-8-9	INSTRUMENT APPROACH CHART - ICAO - RWY 04 RNP Z (AR)
AD 2-WMSA-8-13	INSTRUMENT APPROACH CHART - ICAO - RWY 04 RNP Y

5 IMPLEMENTATION DATE

5.1 This AIP Supplement and relevant charts will become effective at 0001UTC on **21th March 2024**.

6 CANCELLATION

6.1 If there are no major changes required, this AIP Supplement will remain until the information is published in AIP Malaysia.

- END -

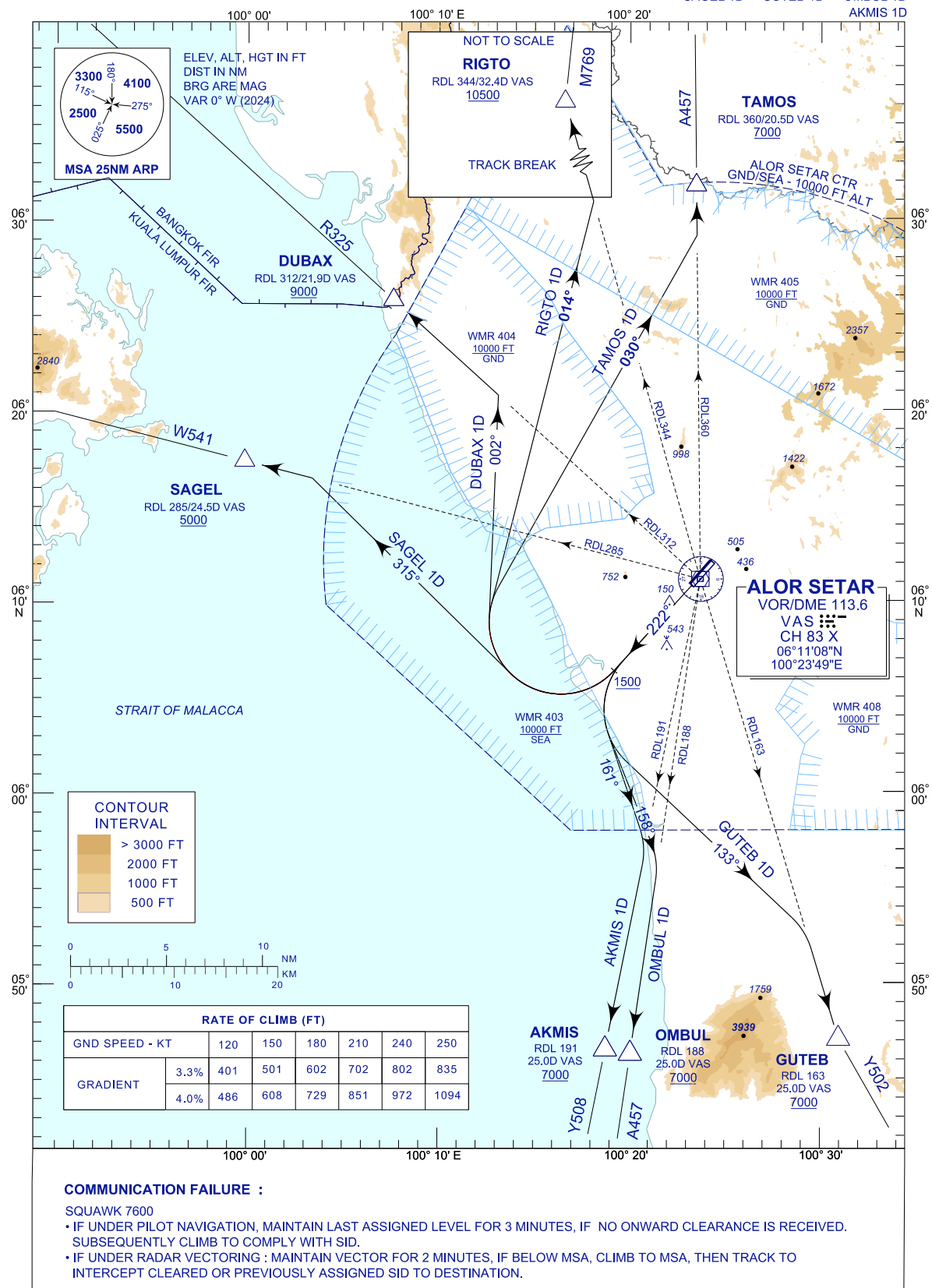
**STANDARD DEPARTURE CHART
INSTRUMENT (SID) - ICAO**

 TRANSITION ALTITUDE
11000 FT

 TWR/APP 122.3, 258.2
121.5
TRAINING 129.1
SMC 121.6
ATIS 128.65

**ALOR SETAR/
SULTAN ABDUL HALIM (WMKA)**

RWY 22

 TAMOS 1D RIGTO 1D DUBAX 1D
SAGEL 1D GUTEB 1D OMBUL 1D
AKMIS 1D


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

 TRANSITION ALTITUDE
11000 FT

**ALOR SETAR/
SULTAN ABDUL HALIM (WMKA)**
RWY 22
TAMOS 1D RIGTO 1D DUBAX 1D
SAGEL 1D GUTEB 1D OMBUL 1D
AKMIS 1D

TABULAR DESCRIPTION

INITIAL CLIMB PROCEDURE	DESIGNATOR	SID DESCRIPTION
AFTER TAKE-OFF TRACK 222° AT 1500 TURN LEFT NOTE : MAXIMUM 250 KIAS	GUTEB 1 DELTA	TRACK 133° TO INTERCEPT RDL 163 VAS VOR OUTBOUND TO GUTEB THEN Y502 NOTE : MINIMUM CLIMB GRADIENT (PDG) 4.5% UNTIL PASSING 7000 FT DUE TO OBSTACLE AND AIRWAYS LOWER LIMIT
	OMBUL 1 DELTA	TRACK 158° TO INTERCEPT RDL 188 VAS VOR OUTBOUND TO OMBUL THEN A457 NOTE : MINIMUM CLIMB GRADIENT (PDG) 4.0% UNTIL PASSING 7000 FT DUE TO OBSTACLE AND AIRWAYS LOWER LIMIT
	AKMIS 1 DELTA	TRACK 161° TO INTERCEPT RDL 191 VAS VOR OUTBOUND TO AKMIS THEN Y508 NOTE : MINIMUM CLIMB GRADIENT (PDG) 4.0% UNTIL PASSING 7000 FT DUE TO OBSTACLE AND AIRWAYS LOWER LIMIT
AFTER TAKE-OFF TRACK 222° AT 1500 TURN RIGHT	DUBAX 1 DELTA	TRACK 002° TO INTERCEPT RDL 312 VAS VOR OUTBOUND TO DUBAX THEN R325 NOTE : MINIMUM CLIMB GRADIENT (PDG) 4.0% UNTIL PASSING 9000 FT DUE TO OBSTACLE AND AIRWAYS LOWER LIMIT
AFTER TAKE-OFF TRACK 222° AT 1500 TURN RIGHT NOTE : MINIMUM CLIMB GRADIENT (PDG) 4.0% UNTIL PASSING 1500 FT	SAGEL 1 DELTA	TRACK 315° TO INTERCEPT RDL 285 VAS VOR OUTBOUND TO SAGEL THEN W541
	RIGTO 1 DELTA	TRACK 014° TO INTERCEPT RDL 344 VAS VOR OUTBOUND TO RIGTO THEN M769
	TAMOS 1 DELTA	TRACK 030° TO INTERCEPT RDL 360 VAS VOR OUTBOUND TO TAMOS THEN A457

AERONAUTICAL DATA TABULATION

FIX/POINT/NAVAID	COORDINATES
VAS VOR/DME 113.6 MHZ / CH83X	06°11'08.40" N 100°23'49.20" E
AKMIS RDL 191 / 25.0 NM VAS	05°46'32.03" N 100°18'46.10" E
DUBAX RDL 312 / 21.9 NM VAS	06°25'55.90" N 100°07'36.60" E
GUTEB RDL 163 / 25.0 NM VAS	05°47'03.43" N 100°30'57.45" E
OMBUL RDL 188 / 25.0 NM VAS	05°46'18.08" N 100°20'04.29" E
RIGTO RDL 344 / 32.4 NM VAS	06°42'28.22" N 100°15'04.23" E
SAGEL RDL 285 / 24.5 NM VAS	06°17'24.00" N 100°00'00.00" E
TAMOS RDL 360 / 20.5 NM VAS	06°31'46.00" N 100°23'41.00" E

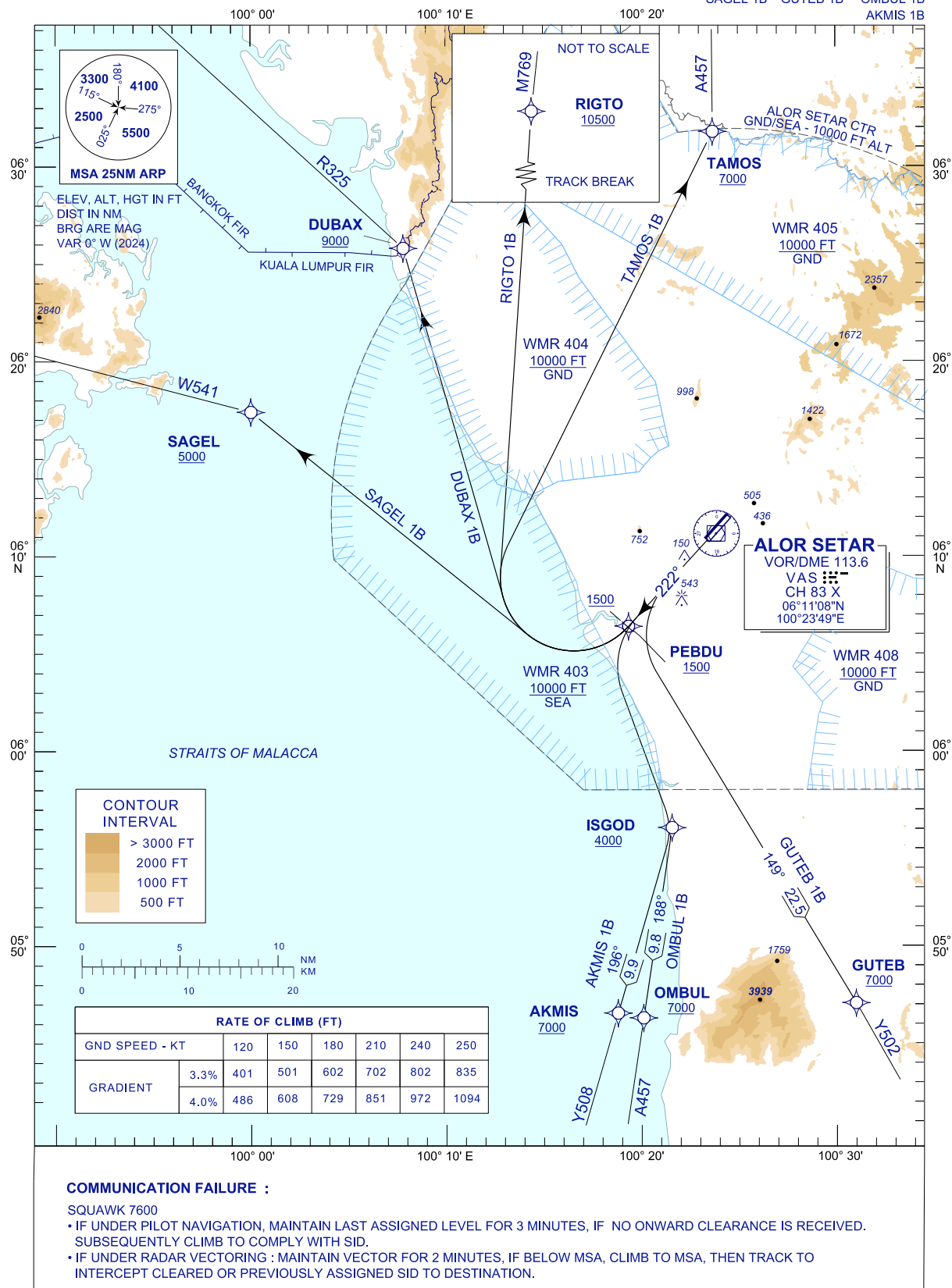
STANDARD DEPARTURE CHART INSTRUMENT (SID) - ICAO

TRANSITION ALTITUDE
11000 FT

TWR/APP 122.3, 258.2
121.5
TRAINING 129.1
SMC 121.6
ATIS 128.65

ALOR SETAR/ SULTAN ABDUL HALIM (WMKA) RNAV (GNSS) RWY22

TAMOS 1B RIGTO 1B DUBAX 1B
SAGEL 1B GUTEB 1B OMBUL 1B
AKMIS 1B



OBSTACLE UPDATE

**STANDARD DEPARTURE CHART
INSTRUMENT (SID) - ICAO**
**ALOR SETAR/
SULTAN ABDUL HALIM (WMKA)
RNAV (GNSS) RWY22**

 TRANSITION ALTITUDE
11000 FT

 TAMOS 1B RIGTO 1B DUBAX 1B
SAGEL 1B GUTEB 1B OMBUL 1B
AKMIS 1B

TABULAR DESCRIPTION
TAMOS 1B DEPARTURE

PATH TERMINATOR	WAYPOINT IDENTIFIER	FLY OVER	COURSE/TRACK °M	DISTANCE NM	TURN DIRECTION	ALTITUDE CONSTRAINT	SPEED LIMIT (KT)	RECOMMENDED NAVAIDS	NAVIGATION SPECIFICATION
CA	RWY 22	-	222°	-	-	+1500	-	-	RNAV 1
DF	TAMOS	-	-	-	R	+7000	-	-	RNAV 1

MINIMUM CLIMB GRADIENT (PDG) 4.0% UNTIL PASSING 1500 FT DUE TO OBSTACLE

RIGTO 1B DEPARTURE

PATH TERMINATOR	WAYPOINT IDENTIFIER	FLY OVER	COURSE/TRACK °M	DISTANCE NM	TURN DIRECTION	ALTITUDE CONSTRAINT	SPEED LIMIT (KT)	RECOMMENDED NAVAIDS	NAVIGATION SPECIFICATION
CA	RWY 22	-	222°	-	-	+1500	-	-	RNAV 1
DF	RIGTO	-	-	-	R	+10500	-	-	RNAV 1

MINIMUM CLIMB GRADIENT (PDG) 4.0% UNTIL PASSING 1500 FT DUE TO OBSTACLE

DUBAX 1B DEPARTURE

PATH TERMINATOR	WAYPOINT IDENTIFIER	FLY OVER	COURSE/TRACK °M	DISTANCE NM	TURN DIRECTION	ALTITUDE CONSTRAINT	SPEED LIMIT (KT)	RECOMMENDED NAVAIDS	NAVIGATION SPECIFICATION
CA	RWY 22	-	222°	-	-	+1500	-	-	RNAV 1
DF	DUBAX	-	-	-	R	+9000	-	-	RNAV 1

MINIMUM CLIMB GRADIENT (PDG) 4.0% UNTIL PASSING 9000 FT DUE TO OBSTACLE AND AIRWAYS LOWER LIMIT

SAGEL 1B DEPARTURE

PATH TERMINATOR	WAYPOINT IDENTIFIER	FLY OVER	COURSE/TRACK °M	DISTANCE NM	TURN DIRECTION	ALTITUDE CONSTRAINT	SPEED LIMIT (KT)	RECOMMENDED NAVAIDS	NAVIGATION SPECIFICATION
CA	RWY 22	-	222°	-	-	+1500	-	-	RNAV 1
DF	SAGEL	-	-	-	R	+5000	-	-	RNAV 1

MINIMUM CLIMB GRADIENT (PDG) 4.0% UNTIL PASSING 1500 FT DUE TO OBSTACLE

AKMIS 1B DEPARTURE

PATH TERMINATOR	WAYPOINT IDENTIFIER	FLY OVER	COURSE/TRACK (°M)	DISTANCE NM	TURN DIRECTION	ALTITUDE CONSTRAINT	SPEED LIMIT (KT)	RECOMMENDED NAVAIDS	NAVIGATION SPECIFICATION
CA	RWY 22	-	222°	-	-	+1500	-	-	RNAV 1
DF	ISGOD	-	-	-	L	+4000	-	-	RNAV 1
TF	AKMIS	-	196°	9.9	R	+7000	-	-	RNAV 1

MINIMUM CLIMB GRADIENT (PDG) 4.5% UNTIL PASSING 7000 FT DUE TO OBSTACLE AND AIRWAYS LOWER LIMIT

STANDARD DEPARTURE CHART
INSTRUMENT (SID) - ICAOALOR SETAR/
SULTAN ABDUL HALIM (WMKA)

RNAV (GNSS) RWY22

TRANSITION ALTITUDE
11000 FTTAMOS 1B RIGTO 1B DUBAX 1B
SAGEL 1B GUTEB 1B OMBUL 1B
AKMIS 1B

OMBUL 1B DEPARTURE

PATH TERMINATOR	WAYPOINT IDENTIFIER	FLY OVER	COURSE/TRACK °M	DISTANCE NM	TURN DIRECTION	ALTITUDE CONSTRAINT	SPEED LIMIT (KT)	RECOMMENDED NAVAIDS	NAVIGATION SPECIFICATION
CA	RWY 22	-	222°	-	-	+1500	-	-	RNAV 1
DF	ISGOD	-	-	-	L	+4000	-	-	RNAV 1
TF	OMBUL	-	188°	9.8	R	+7000	-	-	RNAV 1

MINIMUM CLIMB GRADIENT (PDG) 4.5% UNTIL PASSING 7000 FT DUE TO OBSTACLE AND AIRWAYS LOWER LIMIT
AIRWAYS LOWER LIMIT

GUTEB 1B DEPARTURE

PATH TERMINATOR	WAYPOINT IDENTIFIER	FLY OVER	COURSE/TRACK °M	DISTANCE NM	TURN DIRECTION	ALTITUDE CONSTRAINT	SPEED LIMIT (KT)	RECOMMENDED NAVAIDS	NAVIGATION SPECIFICATION
CF	PEBDU	-	222°	-	-	+1500	-	-	RNAV 1
TF	GUTEB	-	149°	22.5	L	+7000	-	-	RNAV 1

MINIMUM CLIMB GRADIENT (PDG) 4.5% UNTIL PASSING 7000 FT DUE TO OBSTACLE AND AIRWAYS LOWER LIMIT

AERONAUTICAL DATA TABULATION

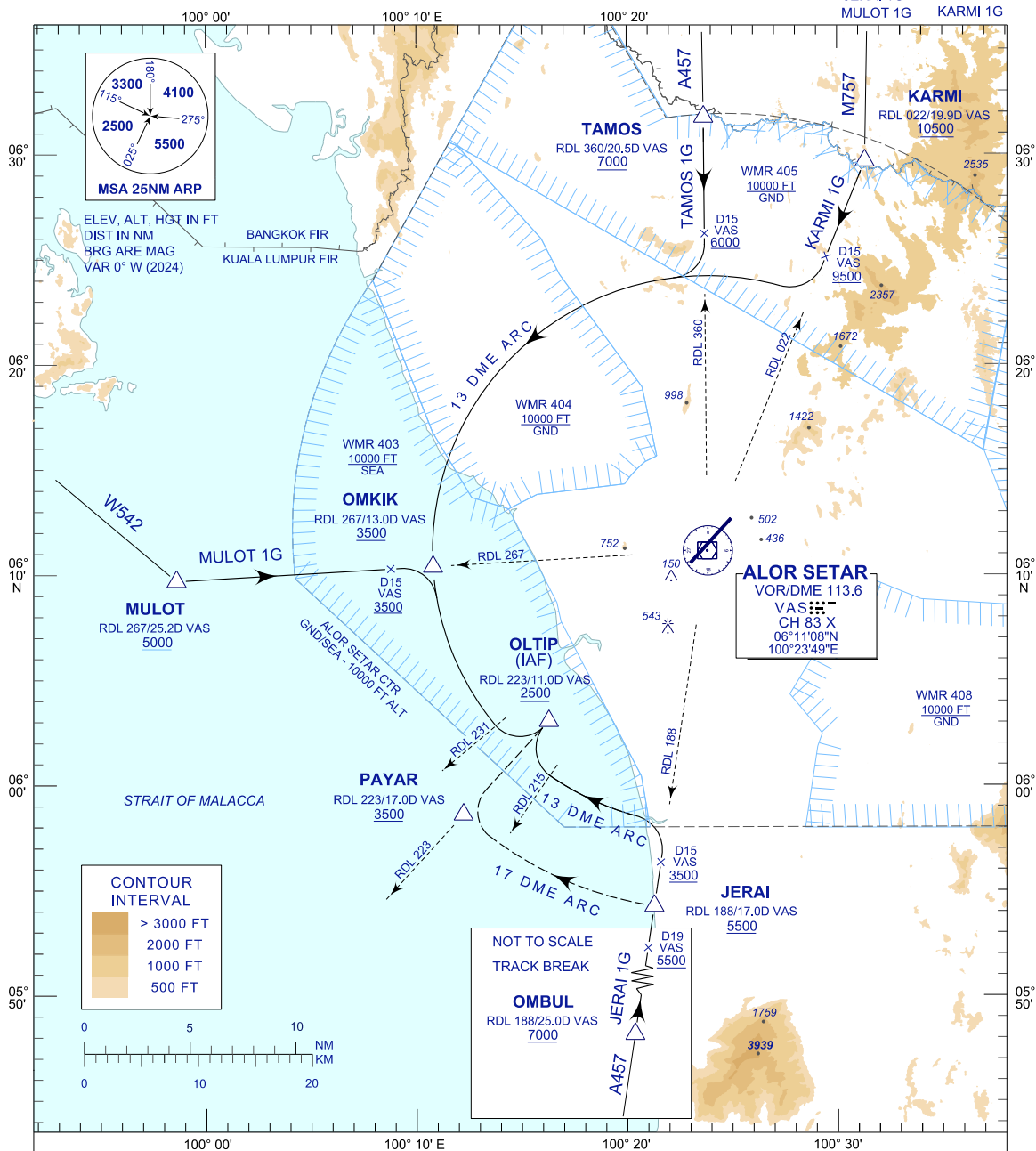
FIX/POINT/NAVAID	COORDINATES
VAS VOR/DME	06°11'08.40" N 100°23'49.20" E
AKMIS	05°46'32.03" N 100°18'46.10" E
DUBAX	06°25'55.90" N 100°07'36.60" E
GUTEB	05°47'03.43" N 100°30'57.45" E
ISGOD	05°56'03.41" N 100°21'32.58" E
OMBUL	05°46'18.08" N 100°20'04.29" E
PEBDU	06°06'23.55" N 100°19'20.06" E
RIGTO	06°42'28.22" N 100°15'04.23" E
SAGEL	06°17'24.00" N 100°00'00.00" E
TAMOS	06°31'46.00" N 100°23'41.00" E

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

 TRANSITION ALTITUDE
11000 FT

TWR/APP	122.3, 258.2
TRAINING	121.5
SMC	129.1
ATIS	121.6
	128.65

**ALOR SETAR/
SULTAN ABDUL HALIM (WMKA)**
VOR/DME ARC RWY 04

 JERAI 1G TAMOS 1G
 MULOT 1G KARMI 1G

COMMUNICATION FAILURE :

SQUAWK 7600

- IF UNDER PILOT NAVIGATION, MAINTAIN LAST ASSIGNED LEVEL FOR 3 MINUTES, IF NO ONWARD CLEARANCE IS RECEIVED. SUBSEQUENTLY CLIMB/DESCEND TO COMPLY WITH STAR AND LAND.
- IF UNDER RADAR VECTORING : MAINTAIN VECTOR FOR 1 MINUTES, IF BELOW MSA, CLIMB TO MSA, THEN TRACK TO INTERCEPT CLEARED OR PREVIOUSLY ASSIGNED STAR AND LAND.

DESIGNATOR	STAR DESCRIPTION
JERAI 1 GOLF	ARRIVAL VIA A457 TO OMBUL AND JERAI THEN TRACK INBOUND ON RDL 188 VAS VOR. AT D15 VAS TURN LEFT TO JOIN 13 DME ARC VAS VOR FOR ILS Z OR LOC Z OR RNAV(GNSS) Y RWY 04 NOTE : ALTERNATIVE 17 DME ARC VAS VOR AS INSTRUCTED BY ATC
MULOT 1 GOLF	ARRIVAL VIA W542 TO MULOT THEN TRACK INBOUND ON RDL 267 VAS VOR. AT D15 VAS TURN RIGHT TO JOIN 13 DME ARC VAS VOR FOR ILS Z OR LOC Z OR RNAV(GNSS) Y RWY 04
TAMOS 1 GOLF	ARRIVAL VIA A457 TO TAMOS THEN TRACK INBOUND ON RDL 360 VAS VOR. AT D15 VAS TURN RIGHT TO JOIN 13 DME ARC VAS VOR FOR ILS Z OR LOC Z OR RNAV(GNSS) Y RWY 04
KARMI 1 GOLF	ARRIVAL VIA M757 TO KARMI THEN TRACK INBOUND ON RDL 022 VAS VOR. AT D15 VAS TURN RIGHT TO JOIN 13 DME ARC VAS VOR FOR ILS Z OR LOC Z OR RNAV(GNSS) Y RWY 04

OBSTACLE UPDATE

STANDARD ARRIVAL CHART
INSTRUMENT (STAR) - ICAOTRANSITION ALTITUDE
11000 FTALOR SETAR/
SULTAN ABDUL HALIM (WMKA)
VOR/DME ARC RWY 04JERAI 1G TAMOS 1G
MULOT 1G Karmi 1G

AERONAUTICAL DATA TABULATION

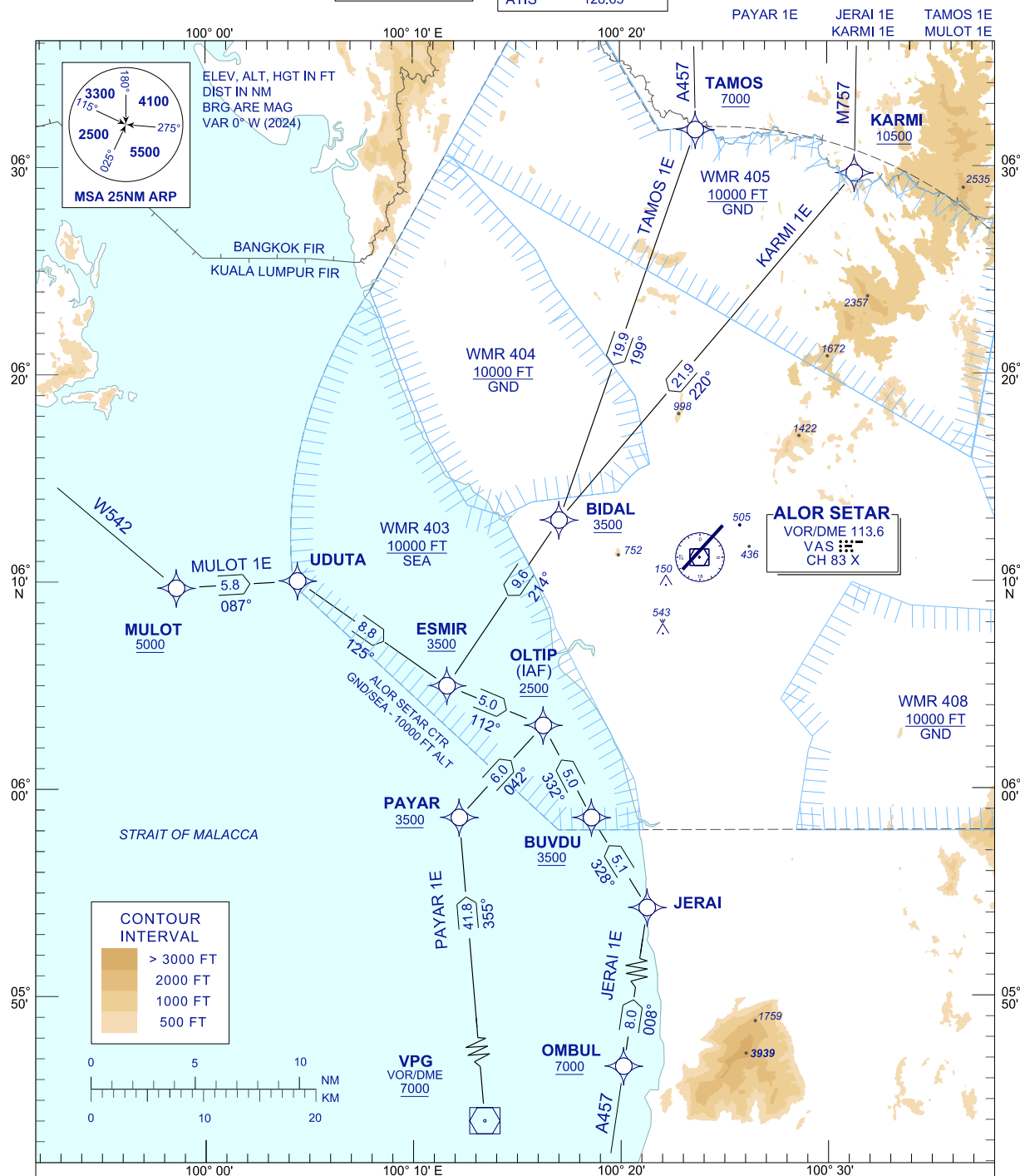
FIX/POINT/NAVAID		COORDINATES
VAS VOR/DME	113.6 MHZ / CH83X	06°11'08.40" N 100°23'49.20" E
JERAI	RDL 188 / 17.0 NM VAS	05°54'14.99" N 100°21'16.23" E
KARMI	RDL 022 / 19.9 NM VAS	06°29'39.84" N 100°31'21.00" E
MULOT	RDL 267 / 25.2 NM VAS	06°09'42.00" N 099°58'36.00" E
OLTIP (IAF)	RDL 223 / 11.0 NM VAS	06°03'03.01" N 100°16'16.59" E
OMBUL	RDL 188 / 25.0 NM VAS	05°46'18.08" N 100°20'04.29" E
OMKIK	RDL 267 / 13.0 NM VAS	06°10'23.91" N 100°10'47.34" E
PAYAR	RDL 223 / 17.0 NM VAS	05°58'36.77" N 100°12'13.11" E
TAMOS	RDL 360 / 20.5 NM VAS	06°31'46.00" N 100°23'41.00" E

STANDARD ARRIVAL CHART INSTRUMENT (STAR) - ICAO

TRANSITION ALTITUDE
11000 FT

TWR/APP	122.3, 258.2
TRAINING	121.5
SMC	129.1
ATIS	121.6
	128.65

ALOR SETAR/ SULTAN ABDUL HALIM (WMKA) RNAV (GNSS) RWY 04



OBSTACLE UPDATE

STANDARD ARRIVAL CHART
INSTRUMENT (STAR) - ICAOALOR SETAR/
SULTAN ABDUL HALIM (WMKA)
RNAV (GNSS) RWY 04TRANSITION ALTITUDE
11000 FTPAYAR 1E JERAI 1E TAMOS 1E
KARMI 1E MULOT 1E

TABULAR DESCRIPTION

JERAI 1E ARRIVAL

PATH TERMINATOR	WAYPOINT IDENTIFIER	FLY OVER	COURSE/TRACK (°M)	DISTANCE NM	TURN DIRECTION	ALTITUDE CONSTRAINT	SPEED LIMIT (KT)	RECOMMENDED NAVAIDS	NAVIGATION SPECIFICATION
IF	OMBUL	-	-	-	-	+7000	-	-	RNAV 1
TF	JERAI	-	008°	8.0	-	-	-	-	RNAV 1
TF	BUVDU	-	328°	5.1	L	+3500	-	-	RNAV 1
TF	OLTIP (IAF)	-	332°	5.0	-	+2500	-	-	RNAV 1

MULOT 1E ARRIVAL

PATH TERMINATOR	WAYPOINT IDENTIFIER	FLY OVER	COURSE/TRACK (°M)	DISTANCE NM	TURN DIRECTION	ALTITUDE CONSTRAINT	SPEED LIMIT (KT)	RECOMMENDED NAVAIDS	NAVIGATION SPECIFICATION
IF	MULOT	-	-	-	-	+5000	-	-	RNAV 1
TF	UDUTA	-	087°	5.8	-	-	-	-	RNAV 1
TF	ESMIR	-	125°	8.8	R	+3500	-	-	RNAV 1
TF	OLTIP (IAF)	-	112°	5.0	-	+2500	-	-	RNAV 1

PAYAR 1E ARRIVAL

PATH TERMINATOR	WAYPOINT IDENTIFIER	FLY OVER	COURSE/TRACK (°M)	DISTANCE NM	TURN DIRECTION	ALTITUDE CONSTRAINT	SPEED LIMIT (KT)	RECOMMENDED NAVAIDS	NAVIGATION SPECIFICATION
IF	VPG	-	-	-	-	+7000	-	-	RNAV 1
TF	PAYAR	-	355°	41.8	-	+3500	-	-	RNAV 1
TF	OLTIP (IAF)	-	042°	6.0	R	+2500	-	-	RNAV 1

TAMOS 1E ARRIVAL

PATH TERMINATOR	WAYPOINT IDENTIFIER	FLY OVER	COURSE/TRACK (°M)	DISTANCE NM	TURN DIRECTION	ALTITUDE CONSTRAINT	SPEED LIMIT (KT)	RECOMMENDED NAVAIDS	NAVIGATION SPECIFICATION
IF	TAMOS	-	-	-	-	+7000	-	-	RNAV 1
TF	BIDAL	-	199°	19.9	-	+3500	-	-	RNAV 1
TF	ESMIR	-	214°	9.6	-	+3500	-	-	RNAV 1
TF	OLTIP (IAF)	-	112°	5.0	L	+2500	-	-	RNAV 1

KARMI 1E ARRIVAL

PATH TERMINATOR	WAYPOINT IDENTIFIER	FLY OVER	COURSE/TRACK (°M)	DISTANCE NM	TURN DIRECTION	ALTITUDE CONSTRAINT	SPEED LIMIT (KT)	RECOMMENDED NAVAIDS	NAVIGATION SPECIFICATION
IF	KARMI	-	-	-	-	+10500	-	-	RNAV 1
TF	BIDAL	-	220°	21.9	-	+3500	-	-	RNAV 1
TF	ESMIR	-	214°	9.6	-	+3500	-	-	RNAV 1
TF	OLTIP (IAF)	-	112°	5.0	L	+2500	-	-	RNAV 1

STANDARD ARRIVAL CHART
INSTRUMENT (STAR) - ICAOTRANSITION ALTITUDE
11000 FTALOR SETAR/
SULTAN ABDUL HALIM (WMKA)
RNAV (GNSS) RWY 04PAYAR 1E JERAI 1E TAMOS 1E
KARMI 1E MULOT 1E

AERONAUTICAL DATA TABULATION

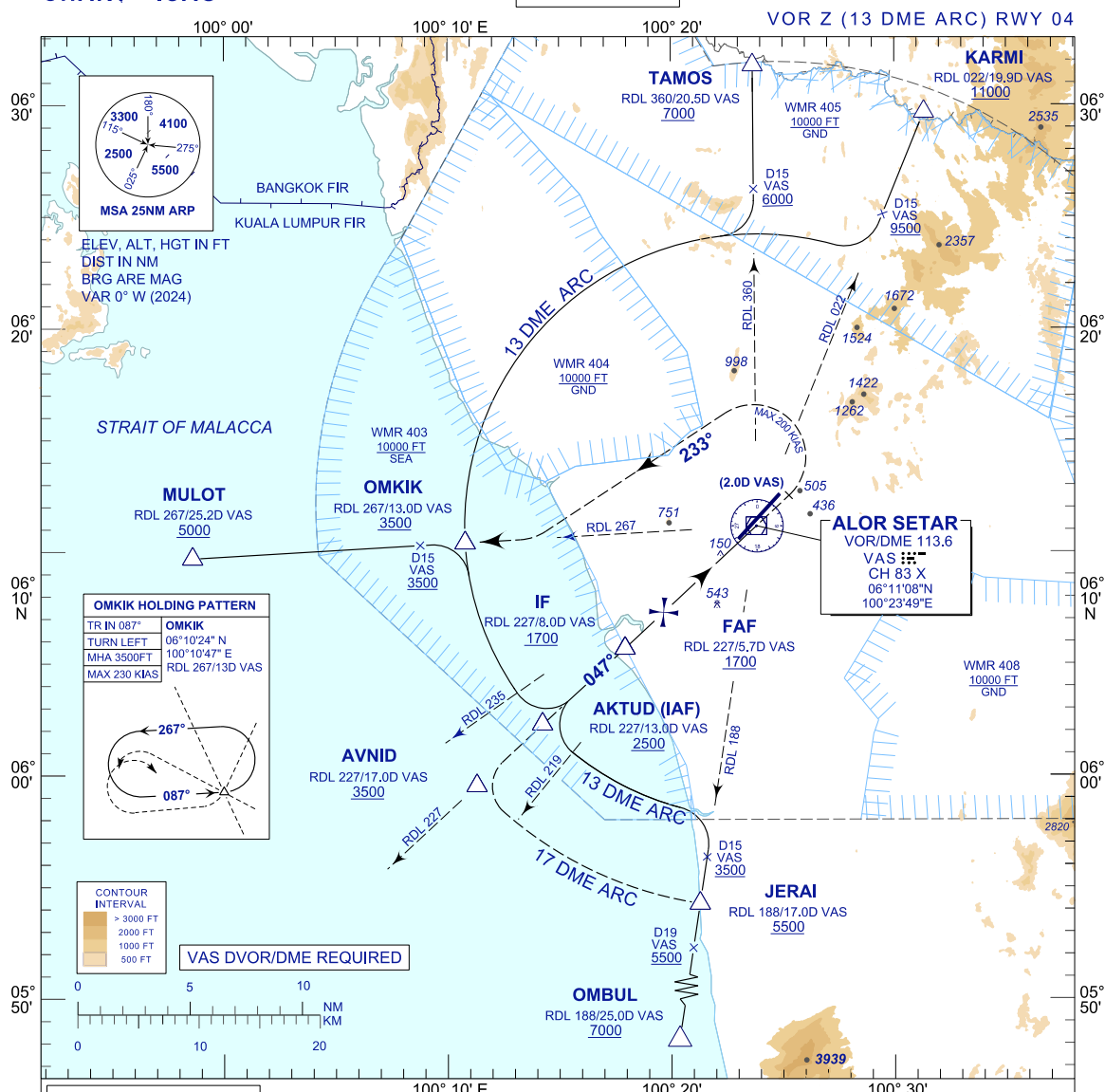
FIX/POINT/NAVAID	COORDINATES
VAS VOR/DME	06°11'08.40" N 100°23'49.20" E
VPG VOR/DME	05°16'45.80" N 100°15'38.80" E
BIDAL	06°12'56.88" N 100°17'03.52" E
BUVDU	05°58'35.67" N 100°18'35.71" E
JERAI	05°54'14.99" N 100°21'16.23" E
ESMIR	06°04'58.25" N 100°11'38.32" E
KARMI	06°29'40.00" N 100°31'21.00" E
MULOT	06°09'42.00" N 099°58'36.00" E
OLTIP (IAF)	06°03'03.01" N 100°16'16.59" E
OMBUL	05°46'18.08" N 100°20'04.29" E
PAYAR	05°58'36.77" N 100°12'13.11" E
TAMOS	06°31'46.00" N 100°23'41.00" E
UDUTA	06°10'02.13" N 100°04'26.66" E

INSTRUMENT APPROACH CHART - ICAO

AERODROME ELEV 14 FT
HEIGHTS RELATED TO
THR RWY 04 - ELEV 12 FT

TWR/APP 122.3
121.5
258.2
SMC 121.6
ATIS 128.65

ALOR SETAR/
SULTAN ABDUL HALIM (WMKA)

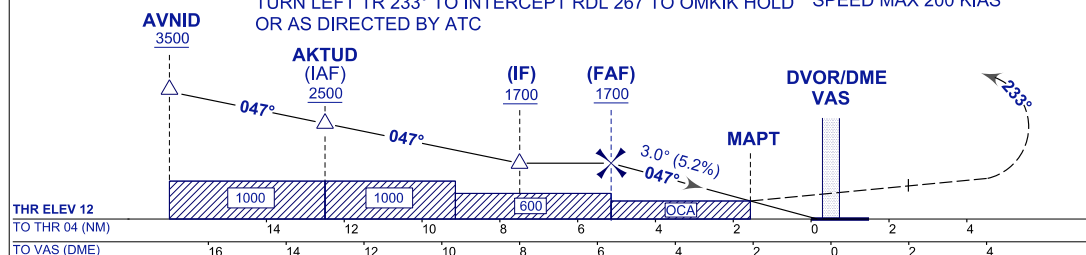


MISSED APPROACH

CLIMB ON TR 047° TO 3500 FT. ON PASSING 2.0 DME VAS
TURN LEFT TR 233° TO INTERCEPT RDL 267 TO OMKIK HOLD
OR AS DIRECTED BY ATC

CAUTION

MISSED APPROACH TURNED
SPEED MAX 200 KIAS



OCA (OCH)	A	B	C	D
VOR/DME	630 (618)			

DIST DME VAS	NM	5.7	5.0	4.0	3.0	2.0
DIST THR/RWY 04	NM	5.1	4.5	3.5	2.5	1.5
ALTITUDE	FT	1700	1496	1178	859	540

GS	KT	80	100	120	140	160	180
FAF - RWY04 (5.1NM)	MIN:SEC	3:52	3:06	2:35	2:13	1:56	1:43
RATE OF DESCEND (318.6 FT/NM)	FT/MIN	420	530	630	740	840	950

OBSTACLE UPDATE & OCA (OCH)

**INSTRUMENT
APPROACH
CHART - ICAO****AERODROME ELEV 14 FT
HEIGHTS RELATED TO
THR RWY 04 - ELEV 12 FT****ALOR SETAR/
SULTAN ABDUL HALIM (WMKA)**

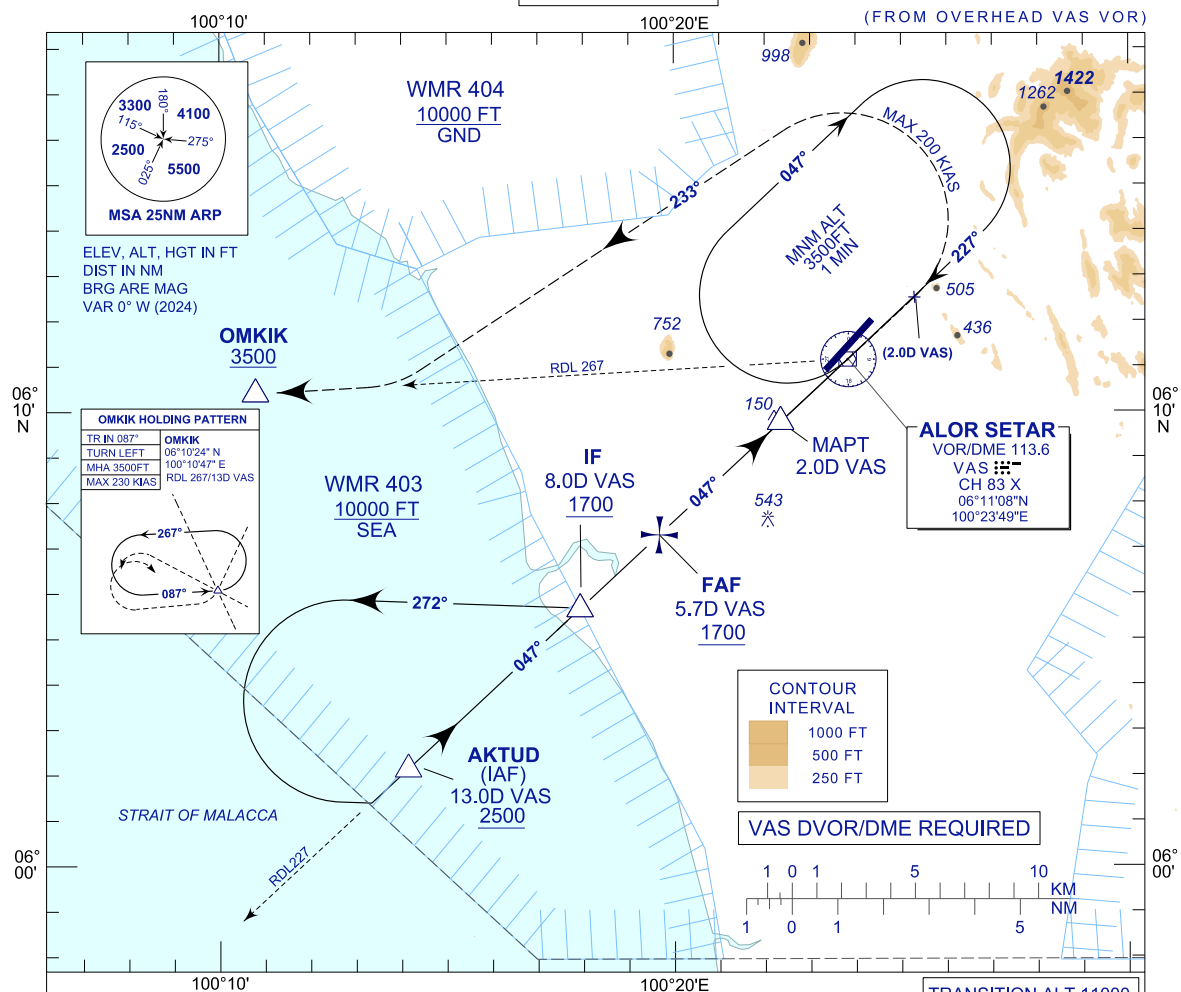
VOR Z (13 DME ARC) RWY 04

AERONAUTICAL DATA TABULATION

FIX/POINT/NAVAID		COORDINATES
VAS VOR/DME	113.6 MHZ / CH83X	06°11'08.40" N 100°23'49.20" E
AVNID	RDL 227 / 17.0 NM VAS	05°59'31.88" N 100°11'18.06" E
JERAI	RDL 188 / 17.0 NM VAS	05°54'14.99" N 100°21'16.23" E
KARMI	RDL 022 / 19.9 NM VAS	06°29'40.00" N 100°31'21.00" E
MULOT	RDL 267 / 25.2 NM VAS	06°09'42.00" N 099°58'36.00" E
OMKIK	RDL 267 / 13.0 NM VAS	06°10'23.91" N 100°10'47.34" E
OMBUL	RDL 188 / 25.0 NM VAS	05°46'18.08" N 100°20'04.29" E
TAMOS	RDL 360 / 20.5 NM VAS	06°31'46.00" N 100°23'41.00" E
AKTUD (IAF)	RDL 227 / 13.0 NM VAS	06°02'15.80" N 100°14'14.75" E
IF	RDL 227 / 8.0 NM VAS	06°05'40.21" N 100°17'56.18" E
FAF	RDL 227 / 5.7 NM VAS	06°07'16.64" N 100°19'39.89" E
MAPT	RDL 227 / 2.0 NM VAS	06°09'46.34" N 100°22'20.93" E

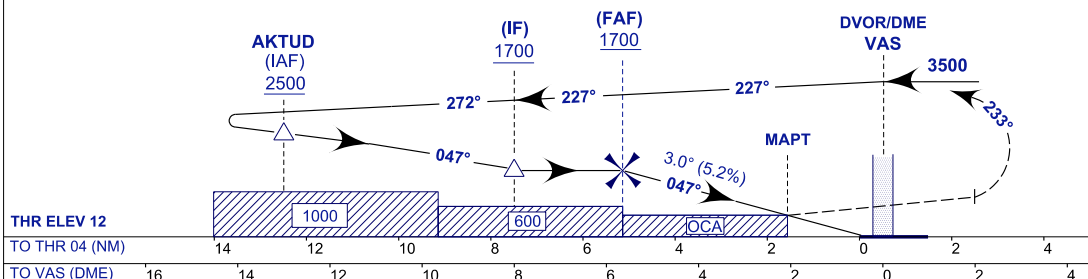
**INSTRUMENT
APPROACH
CHART - ICAO**
AERODROME ELEV 14 FT
 HEIGHTS RELATED TO
 THR RWY 04 - ELEV 12 FT

 TWR/APP 122.3
 121.5
 258.2
 SMC 121.6
 ATIS 128.65

**ALOR SETAR/
SULTAN ABDUL HALIM (WMKA)**
VOR Y RWY 04

MISSED APPROACH

 CLIMB ON TR 047° TO 3500 FT. ON PASSING 2.0 DME VAS
 TURN LEFT TR 233° TO INTERCEPT RDL 267 VAS
 TO OMKIK HOLD OR AS DIRECTED BY ATC

CAUTION

 MISSED APPROACH TURNED SPEED
 MAX 200 KIAS


OCA (OCH)	A	B	C	D
VOR/DME	630(618)			

DME VAS	NM	5.7	5.0	4.0	3.0	2.0
DIST THR/RWY 04	NM	5.1	4.5	3.5	2.5	1.5
ALTITUDE	FT	1700	1496	1178	859	540

GS	KT	80	100	120	140	160	180
FAF - RWY04 (5.1NM)	MIN:SEC	3:52	3:06	2:35	2:13	1:56	1:43
RATE OF DESCEND (318.6 FT/NM)	FT/MIN	420	530	630	740	840	950

OBSTACLE UPDATE & OCA (OCH) VALUE

**INSTRUMENT
APPROACH
CHART - ICAO**

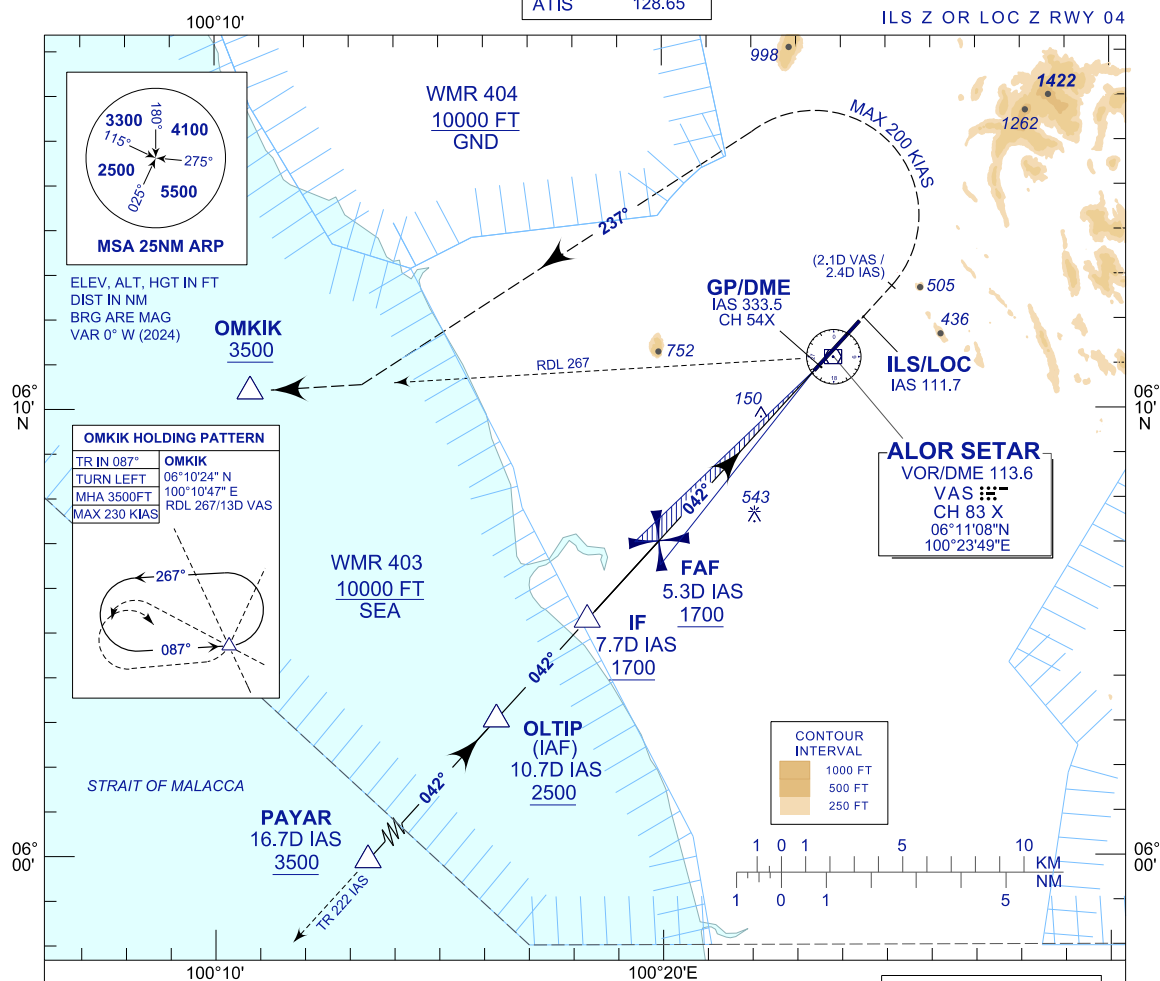
**AERODROME ELEV 14 FT
HEIGHTS RELATED TO
THR RWY 04 - ELEV 12 FT**

**ALOR SETAR/
SULTAN ABDUL HALIM (WMKA)
VOR Y RWY 04**

(FROM OVERHEAD VAS VOR)

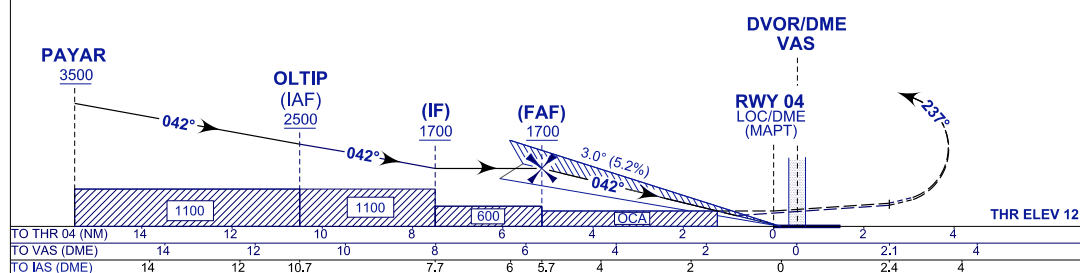
AERONAUTICAL DATA TABULATION

FIX/POINT/NAVAID		COORDINATES	
VAS VOR/DME	113.6 MHZ / CH83X	06°11'08.40" N	100°23'49.20" E
AKTUD (IAF)	RDL 227 / 13.0 NM VAS	06°02'15.80" N	100°14'14.75" E
IF	RDL 227 / 8.0 NM VAS	06°05'40.21" N	100°17'56.18" E
FAF	RDL 227 / 5.7 NM VAS	06°07'16.64" N	100°19'39.89" E
MAPT	RDL 227 / 2.0 NM VAS	06°09'46.34" N	100°22'20.93" E
OMKIK	RDL 267 / 13.0 NM VAS	06°10'23.91" N	100°10'47.34" E

**INSTRUMENT
APPROACH
CHART - ICAO****AERODROME ELEV 14 FT**
HEIGHTS RELATED TO
THR RWY 04 - ELEV 12 FTTWR/APP 122.3
121.5
258.2
SMC 121.6
ATIS 128.65**ALOR SETAR/
SULTAN ABDUL HALIM (WMKA)****MISSED APPROACH**CLIMB ON TR 042° TO 3500 FT. ON PASSING 2.1 DME VAS
OR 2.4 DME IAS TURN LEFT TR 237° TO INTERCEPT RDL 267
TO OMKIK HOLD OR AS DIRECTED BY ATC**CAUTION**MISSED APPROACH
TURNED SPEED MAX 200 KIAS

TRANSITION ALT 11000

ILS RDH 50 FT



OCA (OCH)	A	B	C	D
ILS/DME (CAT I)	347 (335)	359 (347)	366 (354)	376 (364)
LOC/DME	530 (518)			

DIST IAS DME	NM	5.3	5.0	4.0	3.0	2.0	1.3
DIST THR/RWY 04	NM	5.1	4.8	3.8	2.8	1.8	1.1
ALTITUDE	FT	1700	1605	1286	968	649	426

GS	KT	80	100	120	140	160	180
FAF - RWY04 (5.1NM)	MIN:SEC	3:52	3:06	2:35	2:13	1:56	1:43
RATE OF DESCEND (318.6 FT/NM)	FT/MIN	420	530	630	740	840	950

OBSTACLE UPDATE & OCA (OCH) VALUES

**INSTRUMENT
APPROACH
CHART - ICAO**

AERODROME ELEV 14 FT
HEIGHTS RELATED TO
THR RWY 04 - ELEV 12 FT

**ALOR SETAR/
SULTAN ABDUL HALIM (WMKA)**

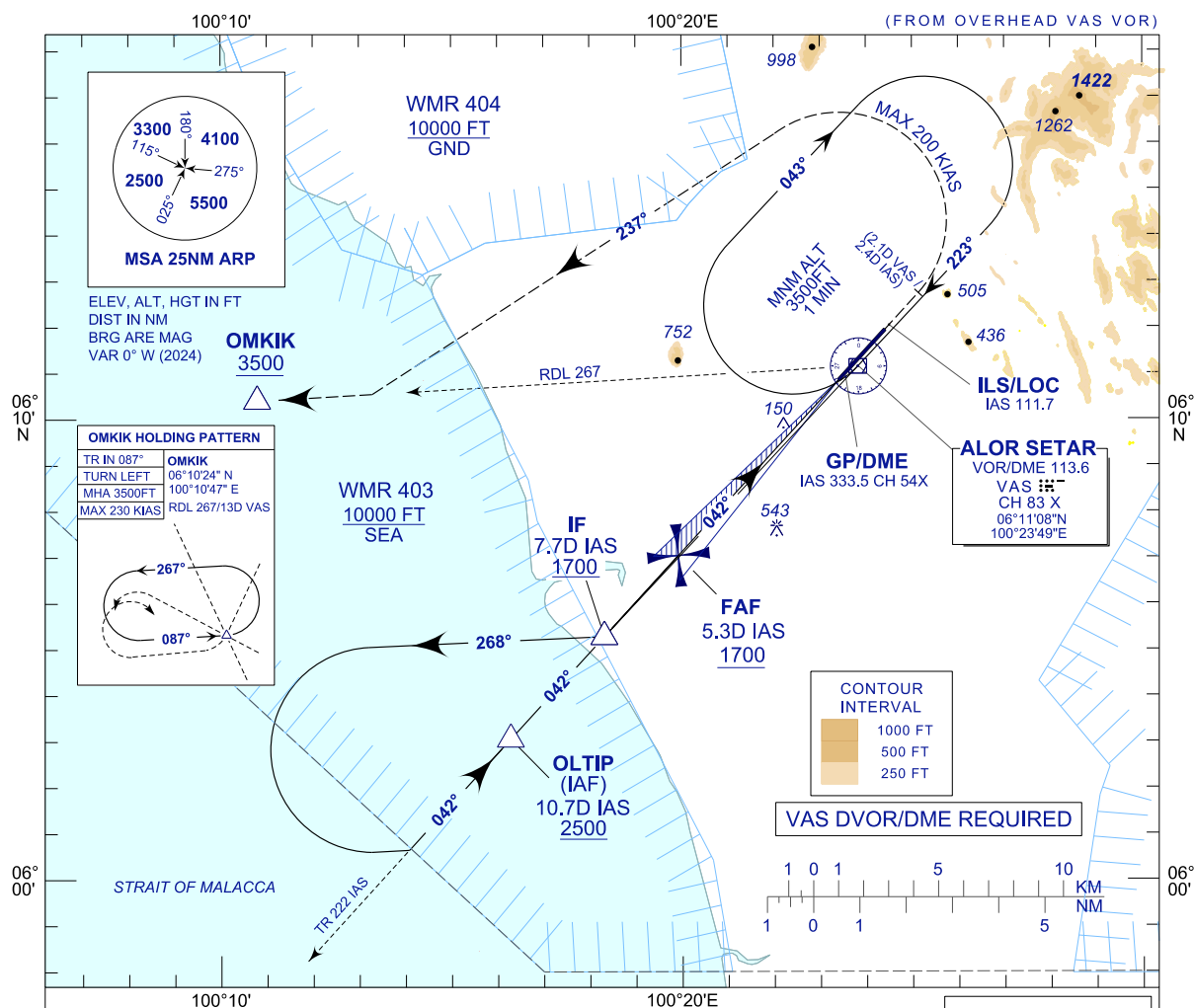
ILS Z OR LOC Z RWY 04

AERONAUTICAL DATA TABULATION

FIX/POINT/NAVAID		COORDINATES	
VAS VOR/DME	113.6 MHZ / CH83X	06°11'08.40" N	100°23'49.20" E
PAYAR	RDL 222 / 16.7 NM IAS	05°58'36.77" N	100°12'13.11" E
OLTIP (IAF)	RDL 222 / 10.7 NM IAS	06°03'03.01" N	100°16'16.59" E
IF	RDL 222 / 7.7 NM IAS	06°05'16.40" N	100°18'18.61" E
FAF	RDL 222 / 5.3 NM IAS	06°07'01.68" N	100°19'54.92" E
MAPT (LOC/DME)	RWY04	06°10'50.34" N	100°23'24.15" E
OMKIK	RDL 267 / 13.0 NM VAS	06°10'23.91" N	100°10'47.34" E

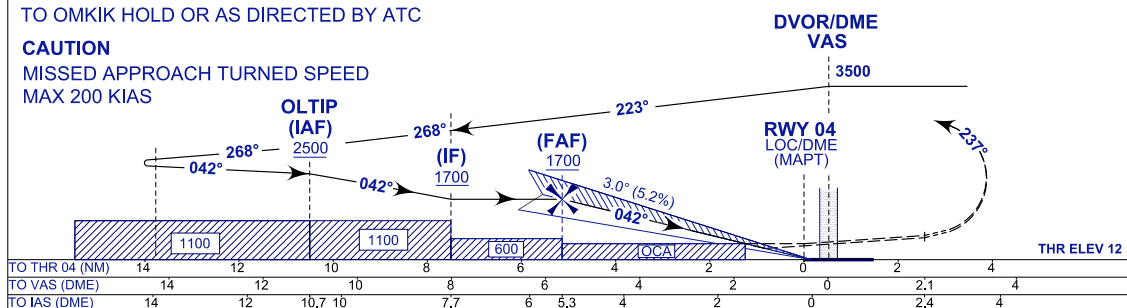
**INSTRUMENT
APPROACH
CHART - ICAO**
AERODROME ELEV 14 FT
 HEIGHTS RELATED TO
 THR RWY 04 - ELEV 12 FT

TWR/APP	122.3
	121.5
	258.2
SMC	121.6
ATIS	128.65

**ALOR SETAR/
SULTAN ABDUL HALIM (WMKA)**
ILS Y OR LOC Y RWY 04

MISSED APPROACH

 CLIMB ON TR 042° TO 3500 FT. ON PASSING 2.1 DME VAS
 OR 2.4 DME IAS TURN LEFT TR 237° TO INTERCEPT RDL 267
 TO OMKIK HOLD OR AS DIRECTED BY ATC

CAUTION

 MISSED APPROACH TURNED SPEED
 MAX 200 KIAS


OCA (OCH)	A	B	C	D
ILS/DME (CAT I)	347 (335)	359 (347)	366 (354)	376 (364)
LOC/DME	530 (518)			

DIST IAS DME	NM	5.3	5.0	4.0	3.0	2.0	1.3
DIST THR/RWY 04	NM	5.1	4.8	3.8	2.8	1.8	1.1
ALTITUDE	FT	1700	1605	1286	968	649	426

GS	KT	80	100	120	140	160	180
FAF - RWY04 (5.1NM)	MIN:SEC	3:52	3:06	2:35	2:13	1:56	1:43
RATE OF DESCEND (318.6 FT/NM)	FT/MIN	420	530	630	740	840	950

OBSTACLE UPDATE & OCA (OCH)

INSTRUMENT
APPROACH
CHART - ICAO

AERODROME ELEV 14 FT
HEIGHTS RELATED TO
THR RWY 04 - ELEV 12 FT

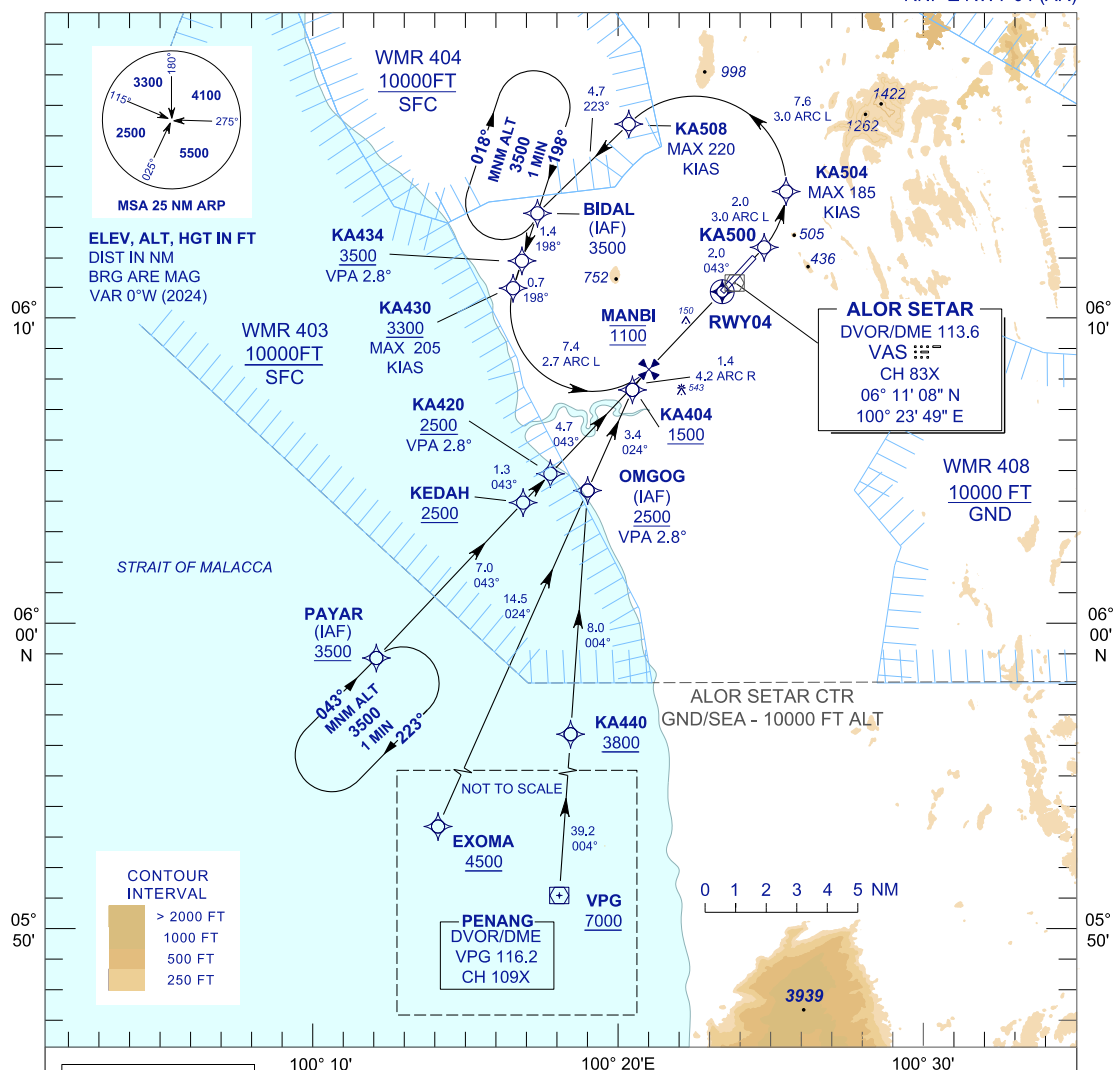
ALOR SETAR/
SULTAN ABDUL HALIM (WMKA)
ILS Y OR LOC Y RWY 04
(FROM OVERHEAD VAS VOR)

AERONAUTICAL DATA TABULATION

FIX/POINT/NAVAID		COORDINATES	
VAS VOR/DME	113.6 MHZ / CH83X	06°11'08.40" N	100°23'49.20" E
OLTIP (IAF)	RDL 222 / 10.7 NM IAS	06°03'03.01" N	100°16'16.59" E
IF	RDL 222 / 7.7 NM IAS	06°05'16.40" N	100°18'18.61" E
FAF	RDL 222 / 5.3 NM IAS	06°07'01.68" N	100°19'54.92" E
MAPT (LOC/DME)	RWY04	06°10'50.34" N	100°23'24.15" E
OMKIK	RDL 267 / 13.0 NM VAS	06°10'23.91" N	100°10'47.34" E

**INSTRUMENT
APPROACH
CHART - ICAO****AERODROME ELEV 14 FT**
HEIGHTS RELATED TO
THR RWY 04 - ELEV 12 FTAPP/TWR 122.3, 258.2, 121.5
TRAINING 129.1
SMC 121.6
ATIS 128.65**ALOR SETAR/
SULTAN ABDUL HALIM (WMKA)**

RNP Z RWY 04 (AR)



OCA/H		
ACFT CAT.	C	D
RNP 0.3	430 (418) / 2.3 KM	

GROUND SPEED - KT	70	90	100	120	140	160
RATE OF DESCENT (2.8°) (FEET/MIN)	347	446	495	594	693	792

DISTANCE TO THRESHOLD (NM)	3.5	3	2	1
ALTITUDE (FEET)	1100	960	670	370

1. AUTHORIZATION REQUIRED
2. GNSS REQUIRED
3. RF REQUIRED
4. APPROACH NOT AUTHORIZED WHEN AIRPORT TEMPERATURE BELOW 19°C OR ABOVE 40°C
5. WMKA ALTIMETER SETTING REQUIRED.
6. PAPI AND VERTICAL PATH ANGLE NOT COINCIDENT
7. PROCEDURE REQUIRES RNP 0.3 FROM IAFS TO KA504
8. TOGA TO NAV REQUIRED
9. CLIMB GRADIENT OF 3.4% TO 3500 FT REQUIRED TO REACH BIDAL

OBSTACLE UPDATE

**INSTRUMENT
APPROACH
CHART - ICAO**
**AERODROME ELEV 14 FT
HEIGHTS RELATED TO
THR RWY 04 - ELEV 12 FT**
**ALOR SETAR/
SULTAN ABDUL HALIM (WMKA)**
RNP Z RWY 04 (AR)
TABULAR DESCRIPTION
BIDAL TRANSITION

NO	PATH TERM	ID	RF ARC CENTER	FLY OVER	WPT DESC	TRACK / DISTANCE OR COURSE / TIME	ARC DIRECTION	ALTITUDE (FT)	IAS (KT)	VPA	RNP
001	IF	BIDAL	-	N	-	-	-	+3500	-	-	-
002	TF	KA434	-	N	-	198.0° M / 1.4NM	-	+3500	-	-	0.3
003	TF	KA430	-	N	-	198.0° M / 0.7NM	-	+3300	-205	-2.80	0.3
004	RF	MANBI	RKA27	N	-	2.7NM RF / 7.4NM	L	@1100	-	-2.80	0.3

EXOMA TRANSITION

NO	PATH TERM	ID	RF ARC CENTER	FLY OVER	WPT DESC	TRACK / DISTANCE OR COURSE / TIME	ARC DIRECTION	ALTITUDE (FT)	IAS (KT)	VPA	RNP
001	IF	EXOMA	-	N	-	-	-	+4500	-	-	-
002	TF	OMGOG	-	N	-	24.1° M / 14.5NM	-	+2500	-	-	2.0
003	TF	KA404	-	N	-	24.1° M / 3.4NM	-	+1500	-	-2.80	0.3
004	RF	MANBI	RKA42	N	-	4.2NM RF / 1.4NM	R	@1100	-	-2.80	0.3

PAYAR TRANSITION

NO	PATH TERM	ID	RF ARC CENTER	FLY OVER	WPT DESC	TRACK / DISTANCE OR COURSE / TIME	ARC DIRECTION	ALTITUDE (FT)	IAS (KT)	VPA	RNP
001	IF	PAYAR	-	N	-	-	-	+3500	-	-	-
002	TF	KEDAH	-	N	-	43.0° M / 7.0NM	-	+2500	-	-	0.3
003	TF	KA420	-	N	-	43.0° M / 1.3NM	-	+2500	-	-	0.3
004	TF	MANBI	-	N	-	43.0° M / 4.7NM	-	@1100	-	-2.80	0.3

VPG TRANSITION

NO	PATH TERM	ID	RF ARC CENTER	FLY OVER	WPT DESC	TRACK / DISTANCE OR COURSE / TIME	ARC DIRECTION	ALTITUDE (FT)	IAS (KT)	VPA	RNP
001	IF	VPG	-	N	-	-	-	+7000	-	-	-
002	TF	KA440	-	N	-	04.0° M / 39.2NM	-	+3800	-	-	2.0
003	TF	OMGOG	-	N	-	04.0° M / 8.0NM	-	+2500	-	-	2.0
004	TF	KA404	-	N	-	24.1° M / 3.4NM	-	+1500	-	-2.80	0.3
005	RF	MANBI	RKA42	N	-	4.2NM RF / 1.4NM	R	@1100	-	-2.80	0.3

FINAL AND MISSED APPROACH

NO	PATH TERM	ID	RF ARC CENTER	FLY OVER	WPT DESC	TRACK / DISTANCE OR COURSE / TIME	ARC DIRECTION	ALTITUDE (FT)	IAS (KT)	VPA	RNP
001	IF	MANBI	-	N	FAF	-	-	@1100	-	-	-
002	TF	RWY04	-	Y	-	42.5° M / 3.5NM	-	0064	-	-2.80	0.3
003	TF	KA500	-	N	-	42.5° M / 2.0NM	-	-	-	-	0.3
004	RF	KA504	RKA30	N	-	3.0NM RF / 2.0NM	L	-	-185	-	0.3
005	RF	KA508	RKA30	N	-	3.0NM RF / 7.6NM	L	-	-220	-	1.0
005	TF	BIDAL	-	N	-	222.5° M / 4.7NM	-	@3500	-	-	1.0

**INSTRUMENT
APPROACH
CHART - ICAO**

**AERODROME ELEV 14 FT
HEIGHTS RELATED TO
THR RWY 04 - ELEV 12 FT**

**ALOR SETAR/
SULTAN ABDUL HALIM (WMKA)**

RNP Z RWY 04 (AR)

AERONAUTICAL DATA TABULATION

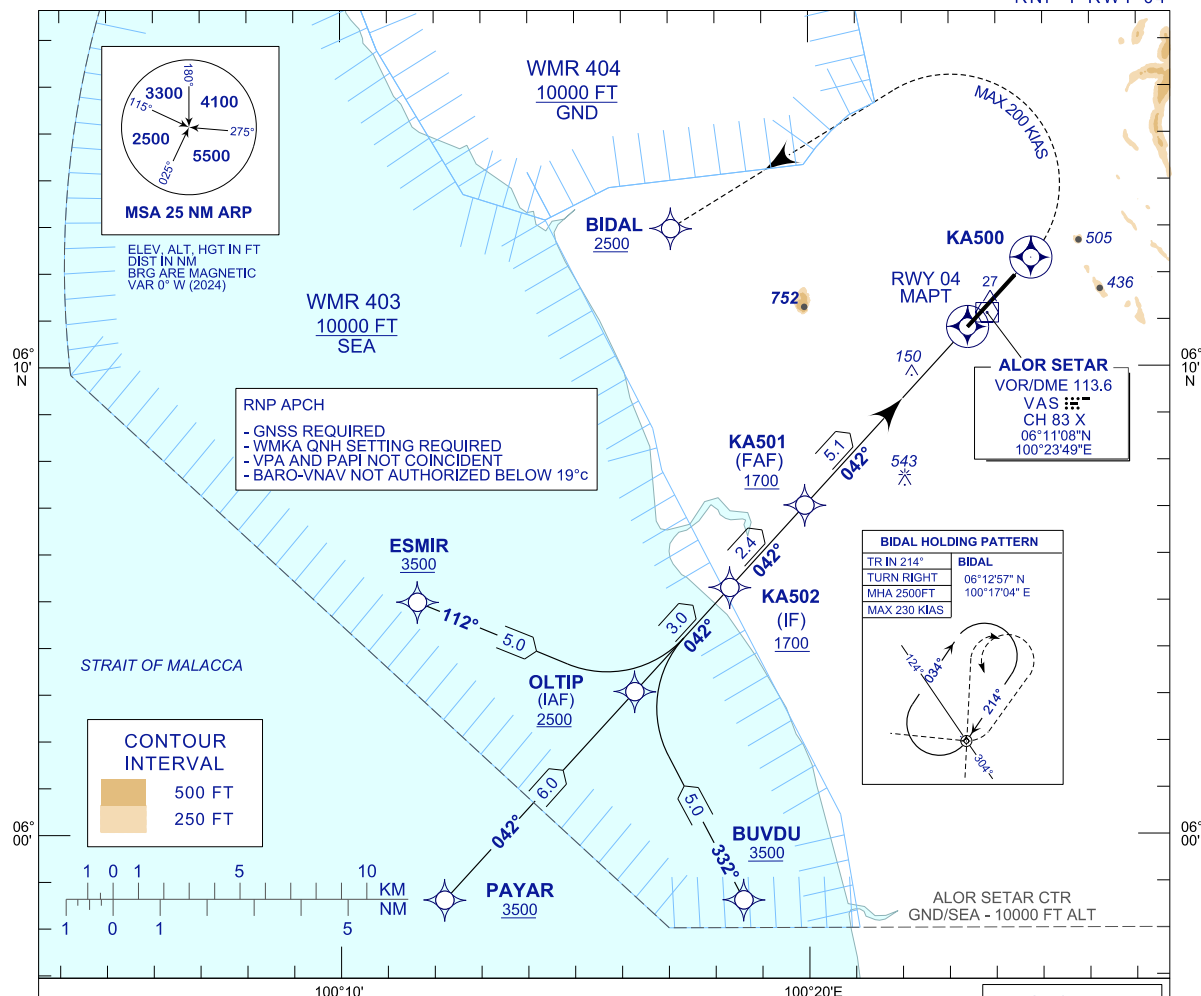
WAYPOINT IDENTIFIER	COORDINATES	
BIDAL	06°12'56.88"N	100°17'03.52"E
EXOMA	05°50'44.16"N	100°12'59.04"E
KEDAH	06°03'47.16"N	100°16'59.16"E
MANBI	06°08'15.34"N	100°21'02.37"E
OMGOG	06°04'02.57"N	100°18'55.37"E
PAYAR	05°58'36.77"N	100°12'13.11"E
RWY04	06°10'50.34"N	100°23'24.15"E
VPG	05°16'45.84"N	100°15'38.78"E
KA404	06°07'07.89"N	100°20'17.91"E
KA420	06°04'45.05"N	100°17'51.59"E
KA430	06°10'57.35"N	100°16'24.73"E
KA434	06°11'35.94"N	100°16'37.23"E
KA440	05°56'01.51"N	100°18'21.63"E
KA500	06°12'19.13"N	100°24'45.51"E
KA504	06°14'07.61"N	100°25'32.96"E
KA508	06°16'26.79"N	100°20'15.46"E
RKA27	06°10'06.60"N	100°19'01.07"E
RKA30	06°14'23.00"N	100°22'30.53"E
RKA42	06°05'25.05"N	100°24'07.85"E

**INSTRUMENT
APPROACH
CHART - ICAO**
AERODROME ELEV 14 FT
 HEIGHT RELATED TO
 THR RWY 04 - ELEV 12 FT

 TWR/APP 122.3
 121.5
 258.2
 SMC 121.6
 ATIS 128.65

**ALOR SETAR/
SULTAN ABDUL HALIM (WMKA)**

RNP Y RWY 04


MISSED APPROACH

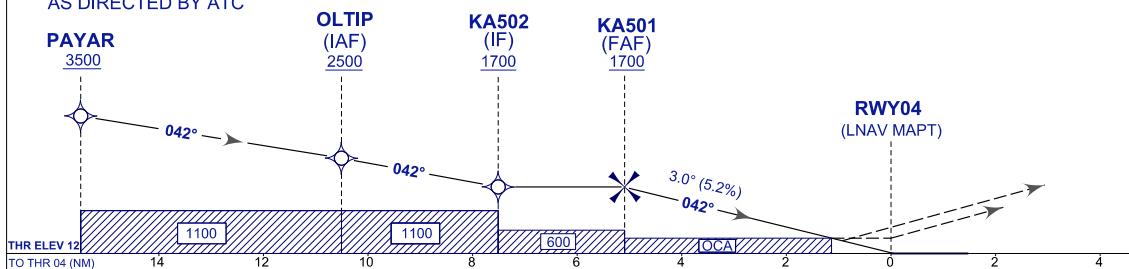
 CLIMB ON TR 042° TO 2500 FT. ON PASSING KA500
 TURN LEFT DIRECT TO BIDAL AND HOLD OR
 AS DIRECTED BY ATC

CAUTION

 MISSED APPROACH TURNED SPEED
 MAX 200 KIAS

TRANSITION ALT 11000

RDH 50 FT



OCA (OCH)	A	B	C	D
LNAV	400 (388)			
LNAV / VNAV	337 (325)	349 (337)	368 (356)	392 (380)

DIST THR/RWY 04	NM	5.1	5.0	4.0	3.0	2.0	1.0
ALTITUDE	FT	1700	1655	1251	954	657	360

GS	KT	80	100	120	140	160	180
FAF - RWY04 (5.1NM)	MIN:SEC	3:52	3:06	2:35	2:13	1:56	1:43
RATE OF DESCEND (318.4 FT/NM)	FT/MIN	420	530	630	740	840	950

OBSTACLE UPDATE, OCA (OCH) FOR LNAV/VNAV

**INSTRUMENT
APPROACH
CHART - ICAO**

AERODROME ELEV 14 FT
HEIGHT RELATED TO
THR RWY 04 - ELEV 12 FT

**ALOR SETAR/
SULTAN ABDUL HALIM (WMKA)**

RNP Y RWY 04

TABULAR DESCRIPTION

PAYAR TRANSITION

NO	PATH DESCRIPTOR	WAYPOINT IDENTIFIER	FLY- OVER	COURSE/ °M	DISTANCE (NM)	TURN DIRECTION	ALTITUDE (FT)	SPEED LIMIT (KT)	VPA/ RDH	NAVIGATION SPECIFICATION
01	IF	PAYAR	-	-	-	-	+3500	-	-	RNP APCH
02	TF	OLTIP (IAF)	-	042°	6.0	-	+2500	-	-	RNP APCH
03	TF	KA502 (IF)	-	042°	3.0	-	+1700	-	-	RNP APCH
04	TF	KA501(FAF)	-	042°	2.4	-	+1700	-	-	RNP APCH
05	TF	RWY04 (MAPT)	Y	042°	5.1	-	-	-	3.0°/ 50FT	RNP APCH
06	TF	KA500	Y	042°	2.0	-	+500	-	-	RNP APCH
07	DF	BIDAL	-	-	-	L	+2500	- 200	-	RNP APCH
08	HM	BIDAL	Y	-	-	R	+2500	- 230	-	RNAV 1

ESMIR TRANSITION

NO	PATH DESCRIPTOR	WAYPOINT IDENTIFIER	FLY- OVER	COURSE/ °M	DISTANCE (NM)	TURN DIRECTION	ALTITUDE (FT)	SPEED LIMIT (KT)	VPA/ RDH	NAVIGATION SPECIFICATION
01	IF	ESMIR	-	-	-	-	+3500	-	-	RNP APCH
02	TF	OLTIP (IAF)	-	042°	5.0	-	+2500	-	-	RNP APCH
03	TF	KA502 (IF)	-	042°	3.0	L	+1700	-	-	RNP APCH
04	TF	KA501(FAF)	-	042°	2.4	-	+1700	-	-	RNP APCH
05	TF	RWY04 (MAPT)	Y	042°	5.1	-	-	-	3.0°/ 50FT	RNP APCH
06	TF	KA500	Y	042°	2.0	-	+500	-	-	RNP APCH
07	DF	BIDAL	-	-	-	L	+2500	- 200	-	RNP APCH
08	HM	BIDAL	Y	-	-	R	+2500	- 230	-	RNAV 1

BUVDU TRANSITION

NO	PATH DESCRIPTOR	WAYPOINT IDENTIFIER	FLY- OVER	COURSE/ °M	DISTANCE (NM)	TURN DIRECTION	ALTITUDE (FT)	SPEED LIMIT (KT)	VPA/ RDH	NAVIGATION SPECIFICATION
01	IF	BUVDU	-	-	-	-	+3500	-	-	RNP APCH
02	TF	OLTIP (IAF)	-	042°	5.0	-	+2500	-	-	RNP APCH
03	TF	KA502 (IF)	-	042°	3.0	R	+1700	-	-	RNP APCH
04	TF	KA501(FAF)	-	042°	2.4	-	+1700	-	-	RNP APCH
05	TF	RWY04 (MAPT)	Y	042°	5.1	-	-	-	3.0°/ 50FT	RNP APCH
06	TF	KA500	Y	042°	2.0	-	+500	-	-	RNP APCH
07	DF	BIDAL	-	-	-	L	+2500	- 200	-	RNP APCH
08	HM	BIDAL	Y	-	-	R	+2500	- 230	-	RNAV 1

INSTRUMENT
APPROACH
CHART - ICAO

AERODROME ELEV 14 FT
HEIGHT RELATED TO
THR RWY 04 - ELEV 12 FT

**ALOR SETAR/
SULTAN ABDUL HALIM (WMKA)**

RNP Y RWY 04

AERONAUTICAL DATA TABULATION

WAYPOINT IDENTIFIER	COORDINATES
PAYAR	05°58'36.77" N 100°12'13.11" E
BIDAL	06°12'56.88" N 100°17'03.52" E
BUVDU	05°58'35.67" N 100°18'35.71" E
ESMIR	06°04'58.25" N 100°11'38.32" E
OLTIP (IAF)	06°03'03.01" N 100°16'16.59" E
KA502 (IF)	06°05'16.40" N 100°18'18.61" E
KA501 (FAF)	06°07'01.66" N 100°19'54.96" E
RWY 04 (MAPT)	06°10'50.34" N 100°23'24.15" E
KA500	06°12'19.13" N 100°24'45.51" E