
**WMKC AD 2.24 CHARTS RELATED TO KOTA BHARU
SULTAN ISMAIL PETRA AIRPORT**

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AERODROME / HELIPORT
CHART - ICAO

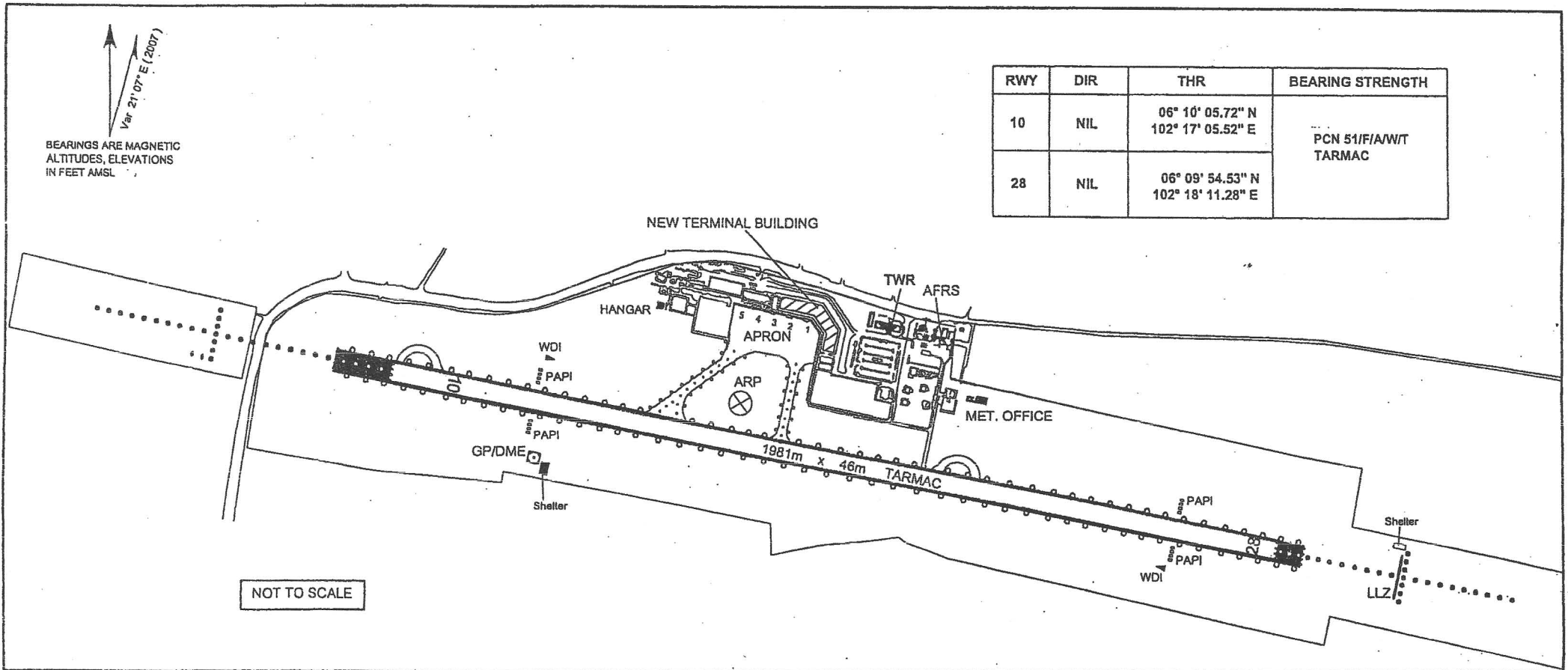
ARP : 06° 09' 58" N
102° 17' 33" E

ELEV. 16 FT (4.9 M)

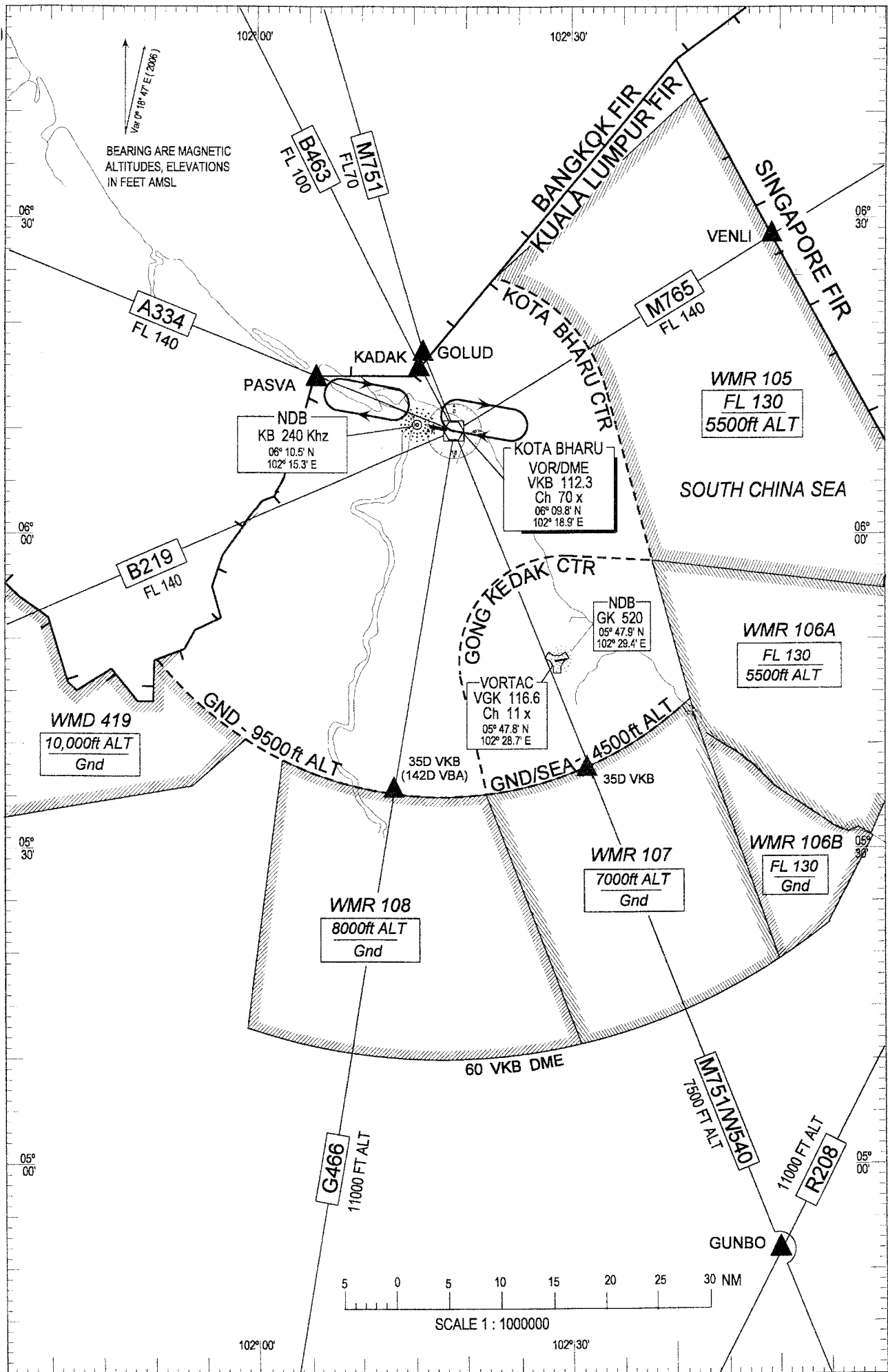
TWR - 122.5
SMC - 121.6

KOTA BHARU /
SULTAN ISMAIL PETRA
AIRPORT

RWY	DIR	THR	BEARING STRENGTH
10	NIL	06° 10' 05.72" N 102° 17' 05.52" E	PCN 51/F/A/W/T TARMAC
28	NIL	06° 09' 54.53" N 102° 18' 11.28" E	



KOTA BHARU CONTROL ZONE

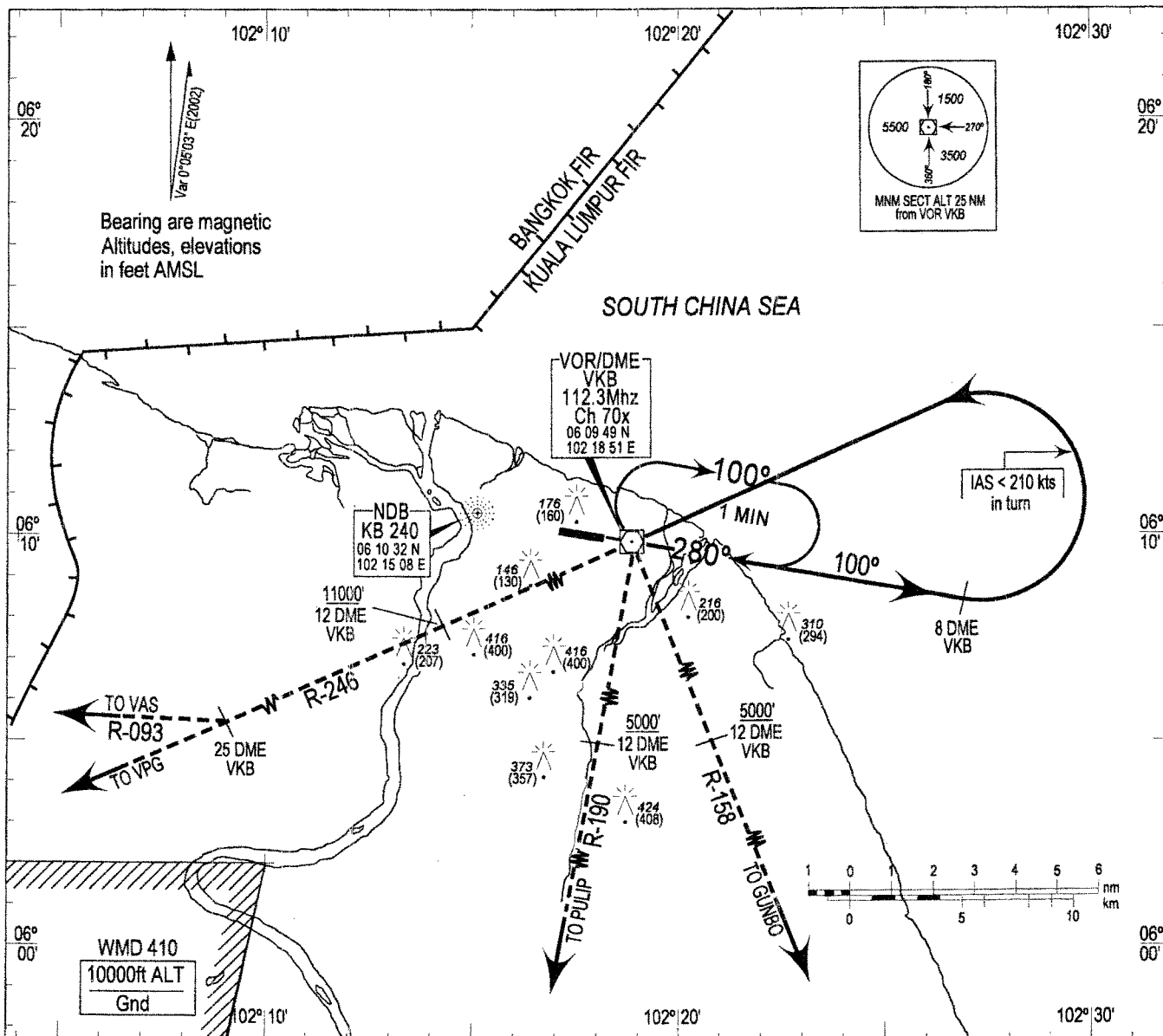


KOTA BHARU/SULTAN ISMAIL PETRA
PENINSULAR MALAYSIA

STANDARD DEPARTURE CHART
INSTRUMENT (SID) - CHART

TRANSITION ALTITUDE	TWR	122.5
11000ft	SMC	121.6

DEPARTURES SOUTH RWY 10



DEPARTURES RUNWAY 10

PDG: For VPG Penang 5.9% to 11000 - Danger Area Left turn for PULIP B 4.2% to 11000 - CTA
 For VAS Alor Setar 5.9% to 11000 - Danger Area Left turn for GUNBO 4.2% to 8000 - CTA
 Track 100°
 IAS in initial turn limited to 210 kts - Restricted Area / FIR Boundary

VPG PENANG DEPARTURE

At 8 DME or 3000ft whichever is earlier,
 Turn left to VKB then intercepts R-246
 outbound from VKB.
 Reach 11000ft or above by 12 DME VKB

VAS ALOR SETAR DEPARTURE

At 8 DME or 3000ft whichever is earlier,
 Turn left to VKB then intercepts R-246
 outbound from VKB.
 Reach 11000ft or above by 12 DME VKB
 On reaching 25 DME VKB, track direct to VAS

PULIP B DEPARTURE

At 8 DME or 2000ft whichever is earlier,
 Turn left to VKB then intercepts R-190
 outbound from PULIP
 Reach 5000ft or above by 12 DME VKB

GUNBO B DEPARTURE

At 8 DME or 2000ft whichever is earlier,
 Turn left to VKB then intercepts R-158
 outbound to GUNBO
 Reach 5000ft or above by 12 DME VKB

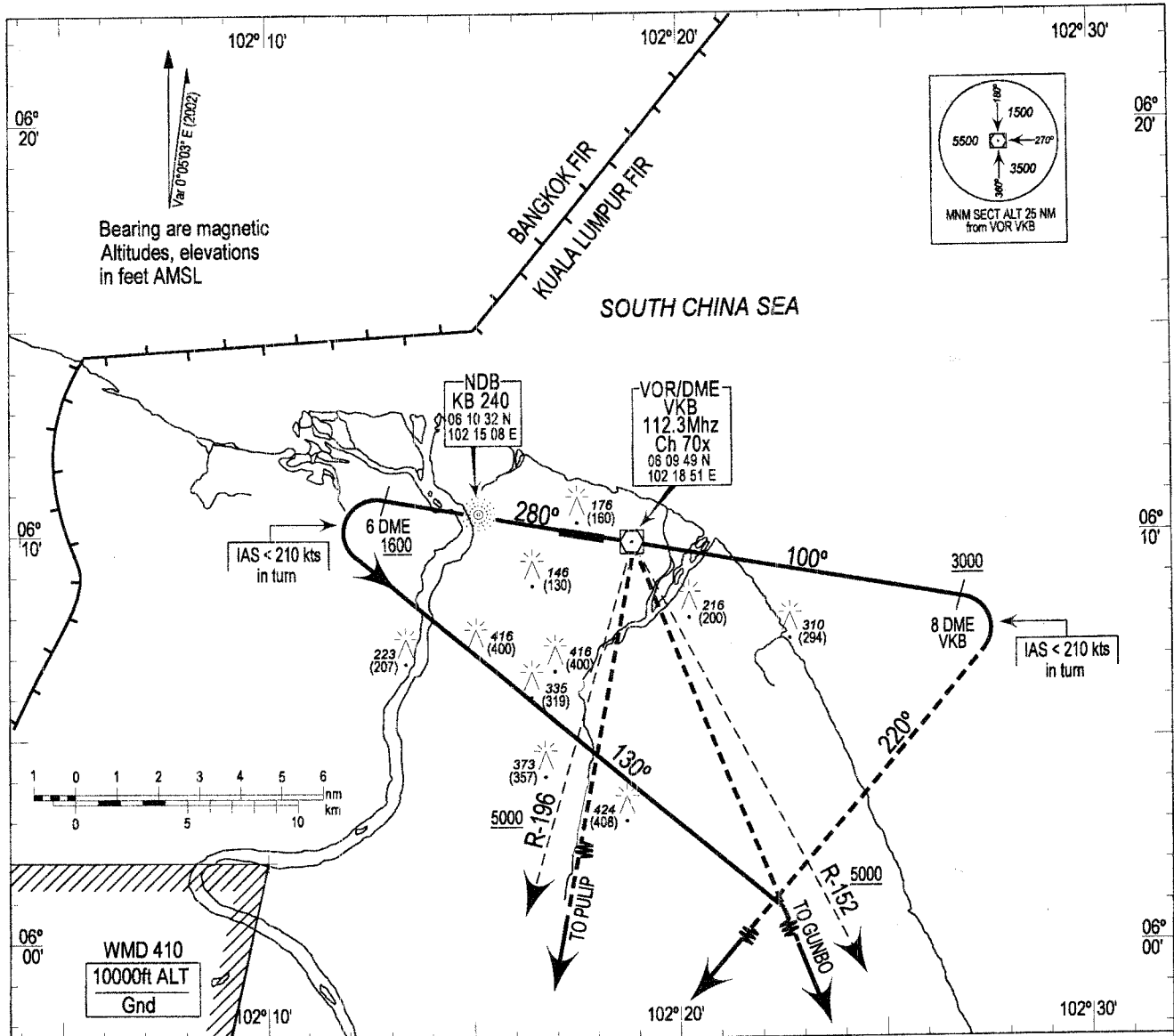
KOTA BHARU/SULTAN ISMAIL PETRA
PENINSULAR MALAYSIA

STANDARD DEPARTURE CHART
INSTRUMENT (SID) - CHART

TRANSITION ALTITUDE
11000ft

TWR 122.5
SMC 121.6

DEPARTURES SOUTH RWY 10/28



DEPARTURES SOUTH

RWY 10

PDG: For PULIP 5.9% to 11000 - CTA
For GUNBO 5.9% to 8000 - CTA

Track 100°

At 8 DME or 3000ft whichever is earlier,
Turn right heading 220°
IAS in initial turn limited to 210 kts
Cross R-152 VKB at 5000ft or above

PULIP DEPARTURE

Intercept R-190 outbound to PULIP

GUNBO DEPARTURE

Intercept R-158 outbound to GUNBO

RWY 28

PDG: For PULIP 5.0% to 11000 - CTA
For GUNBO 5.0% to 8000 - CTA

Track 280°

At 6 DME or 1600ft whichever is earlier,
Turn left heading 130°
IAS in initial turn limited to 210 kts
Cross R-196 VKB at 5000ft or above

PULIP DEPARTURE

Intercept R-190 outbound to PULIP

GUNBO DEPARTURE

Intercept R-158 outbound to GUNBO

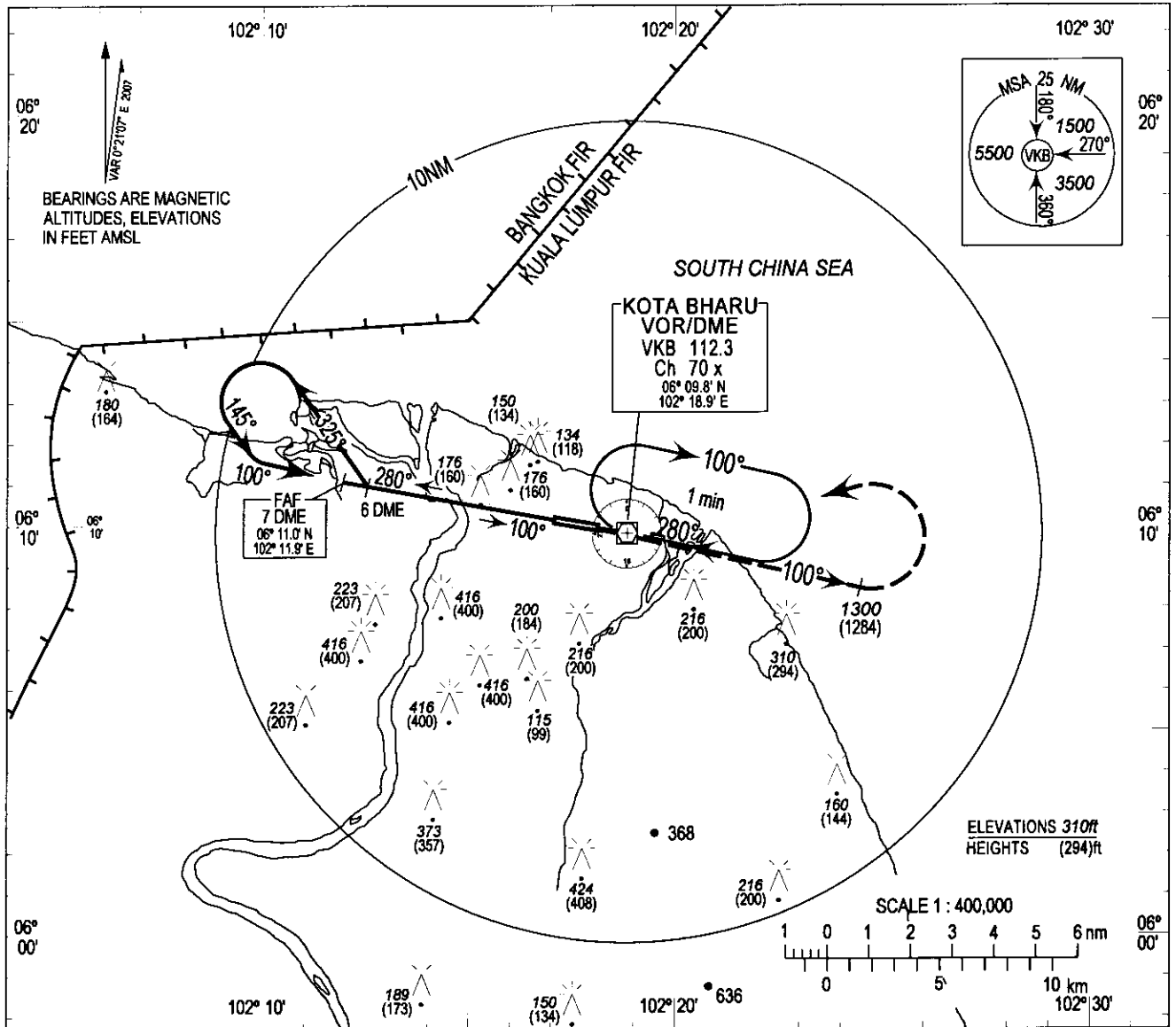
INSTRUMENT APPROACH CHART - ICAO

AD ELEV 16 ft
HEIGHT RELATED TO
THR RWY 10 - ELEV 16ft

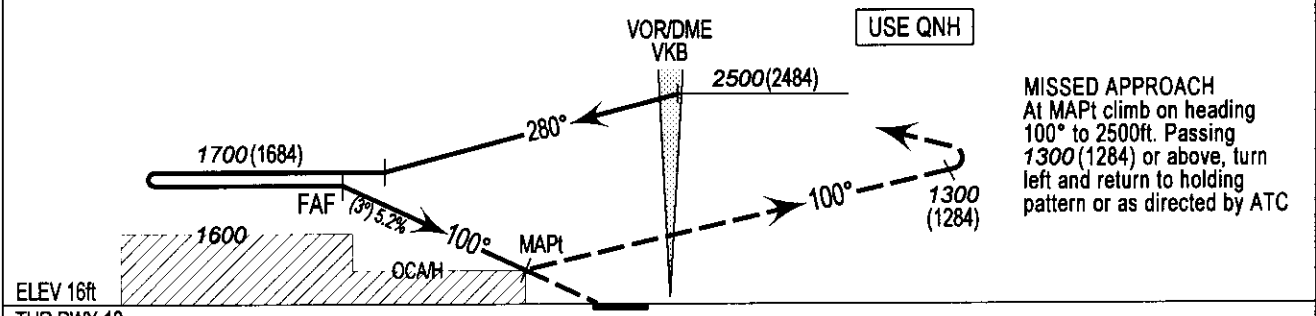
KOTA BHARU/SULTAN ISMAIL PETRA VOR/DME RWY 10

TRANSITION ALTITUDE
11000ft

SMC 121.6
TWR 122.5



Distance by DME	7	6	5	4	3
ALT (3° APCH PATH)	1700	1400	1090	770	450

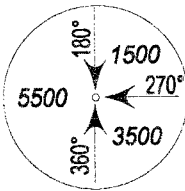


MISSED APPROACH
At MAPt climb on heading 100° to 2500ft. Passing 1300 (1284) or above, turn left and return to holding pattern or as directed by ATC

NM FROM VOR	10	7	5	0	5	6	10
OCA (OCH)	A		B		C		D
Straight-in - Approach	450 (434) / 3.0 DME VKB						
Time to Threshold Runway 10 from FAF 7 nautical miles							
Ground speed (knots)	70	90	120	150	180	210	
Minutes : Seconds	4:33	3:32	2:39	2:07	1:46	1:31	
5.2% descent (ft/min)	368	474	631	790	984	1106	

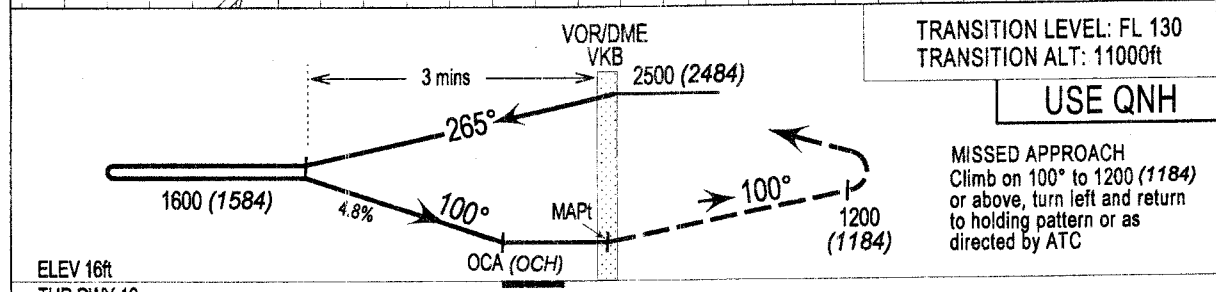
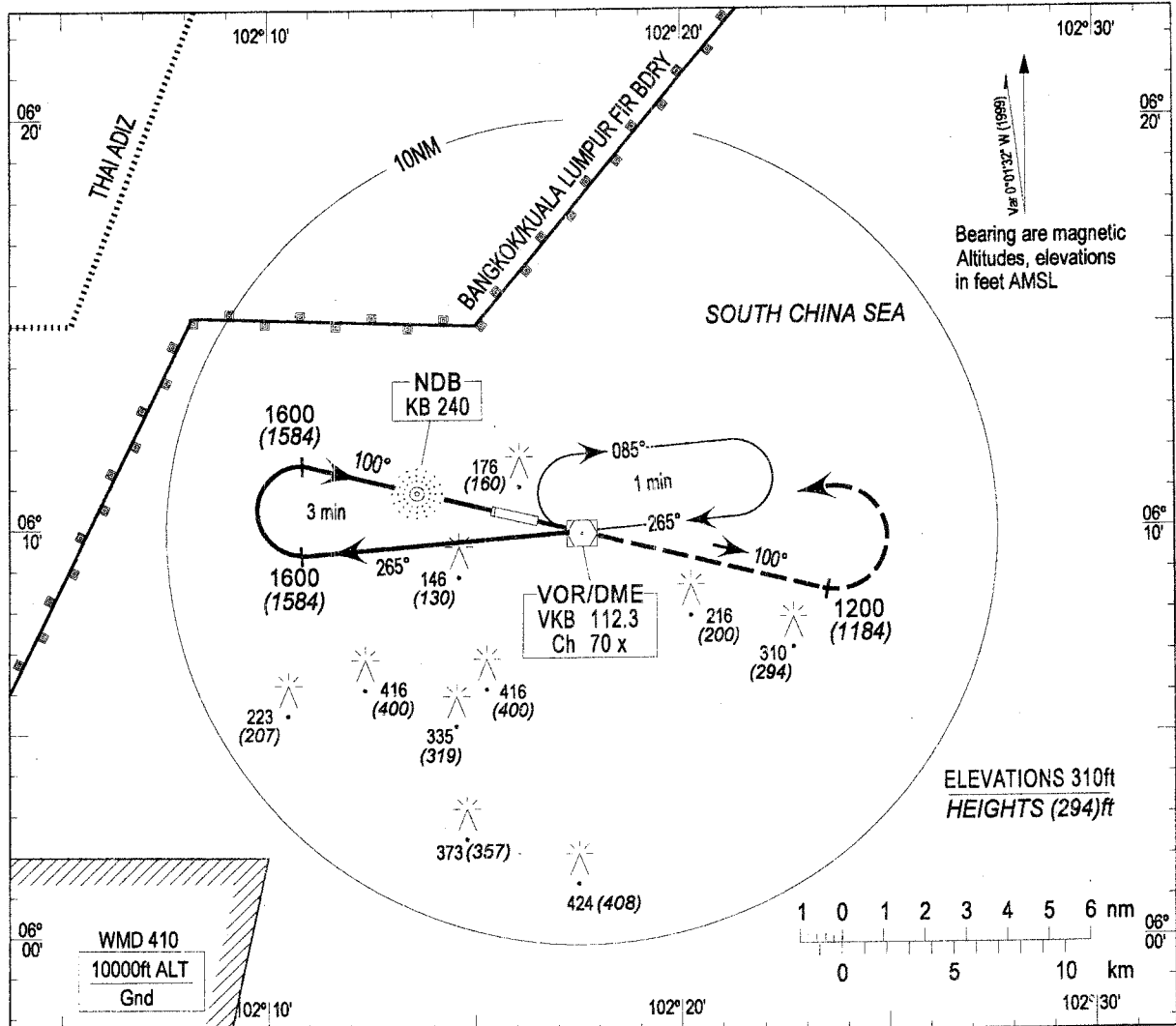
**INSTRUMENT
APPROACH
CHART - ICAO**

AD ELEV 16ft
HEIGHTS RELATED TO
THR RWY 10 - ELEV 16ft



KOTA BHARU/SULTAN ISMAIL PETRA
PENINSULAR MALAYSIA
VOR
RWY 10
RWY 10 (CAT. A & B)

SMC 121.6
TWR 122.5

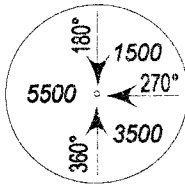


ELEV 16ft
THR RWY 10
NM FROM VOR

Category of Aircraft	OCA (OCH)					
	A	B	C	D	E	F
Straight-in Approach	450 (434)					
Time to Threshold Runway 10 from FAP n distance 5.3 nautical miles						
Ground Speed (knots)	70	90	120	150	180	210
Minutes:Seconds	4:33	3:32	2:39	2:07	-	-
4.8% descent (feet/minutes)	340	440	590	730	-	-

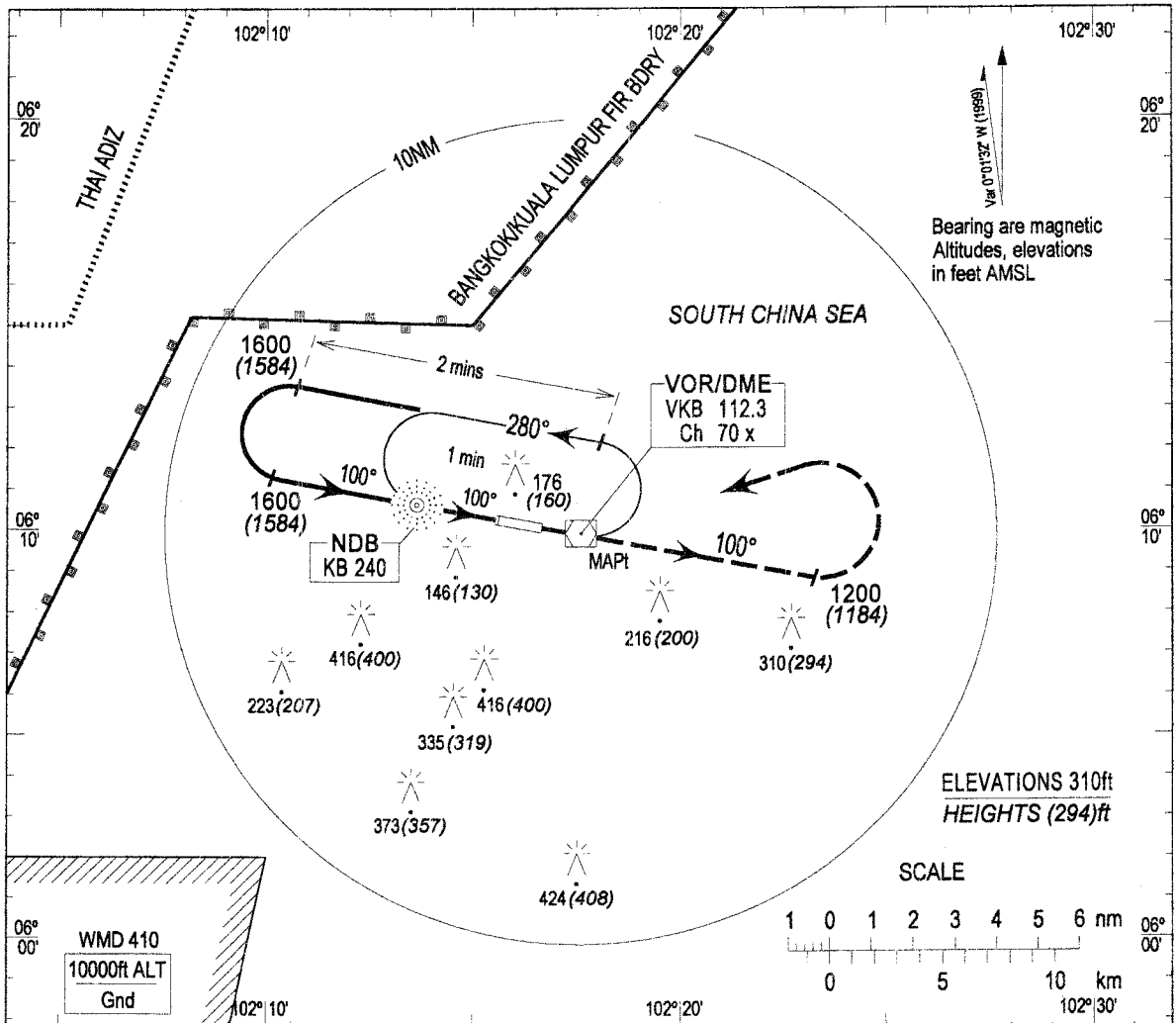
**INSTRUMENT
APPROACH
CHART - ICAO**

AD ELEV 16ft
HEIGHTS RELATED TO
THR RWY 10 - ELEV 16ft

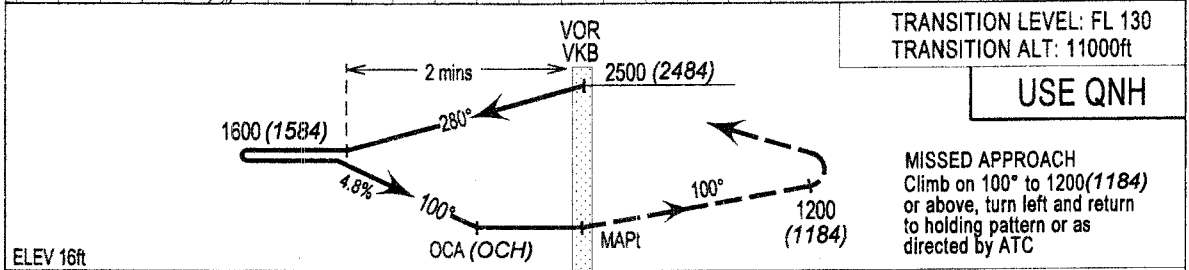
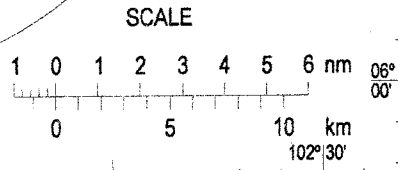


KOTA BHARU/SULTAN ISMAIL PETRA
PENINSULAR MALAYSIA
VOR (Cat. C & D)
RWY 10

SMC 121.6
TWR 122.5



WMD 410
10000ft ALT
Gnd



TRANSITION LEVEL: FL 130
TRANSITION ALT: 11000ft

USE QNH

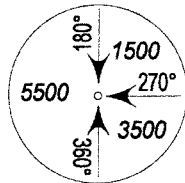
MISSED APPROACH
Climb on 100° to 1200(1184)
or above, turn left and return
to holding pattern or as
directed by ATC

ELEV 16ft
THR RWY 10
NM FROM VOR

OCA(OCH)						
Category of Aircraft	A	B	C	D		
Straight-in - Approach	-		450 (434)			
Time to Threshold Runway 10 from FAP n distance 5.3 nautical miles						
Ground Speed (knots)	70	90	120	150	180	210
Minutes:Seconds	-	-	2:39	2:07	1:46	1:31
4.8% descent (ft/mins)	-	-	590	730	880	1020

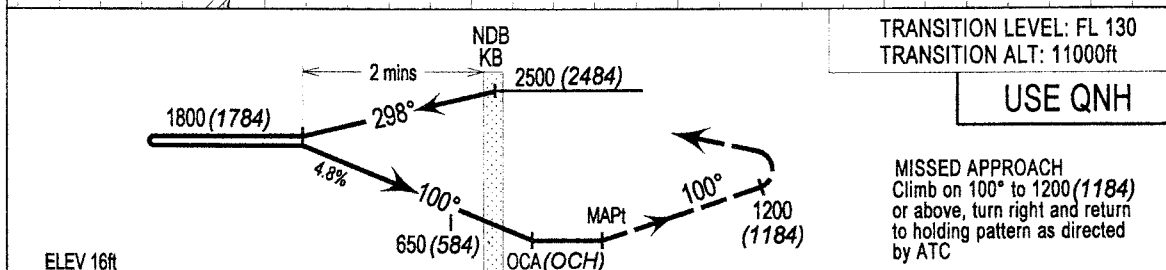
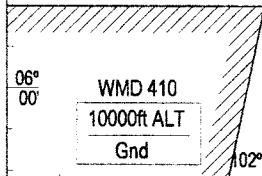
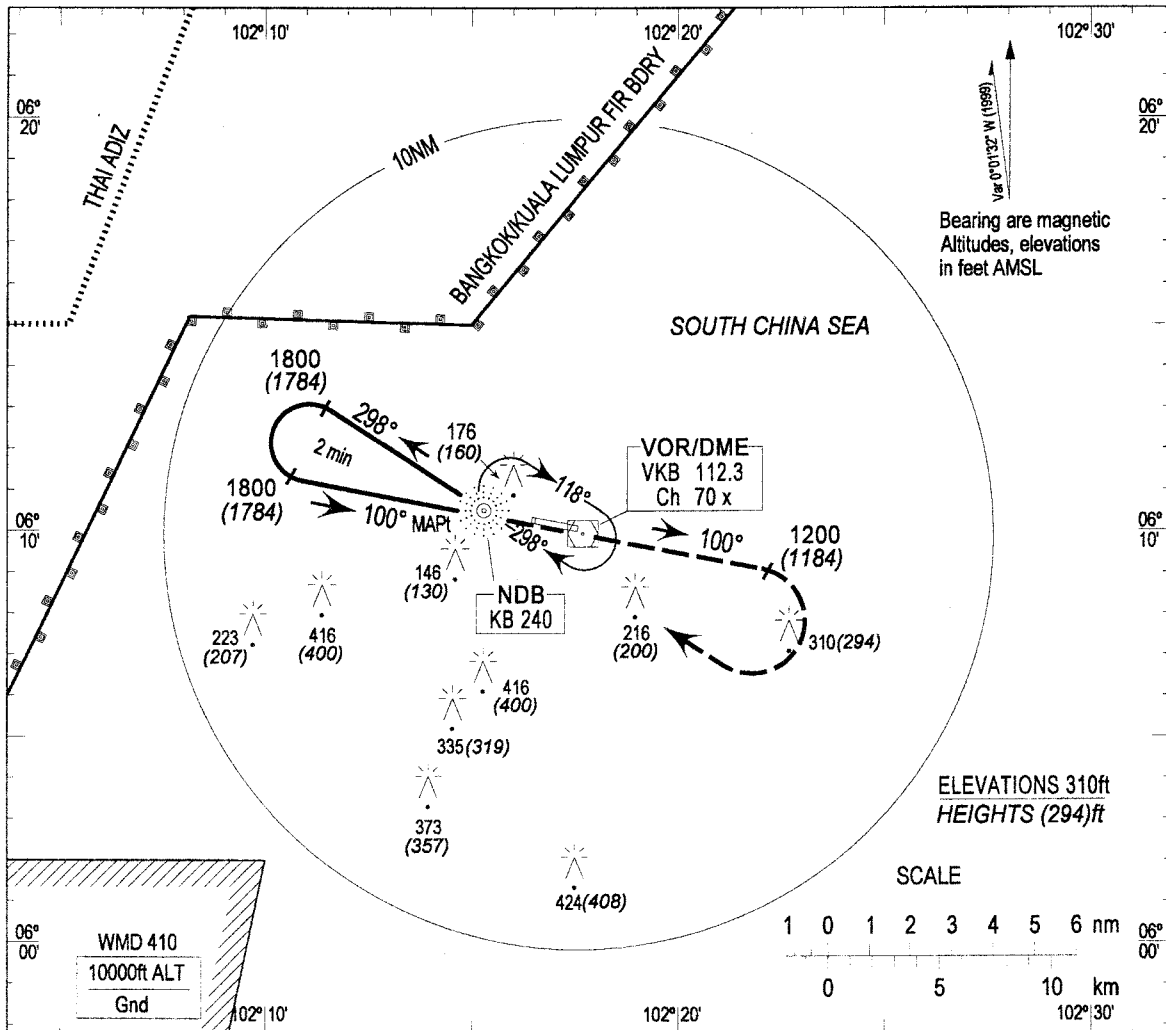
**INSTRUMENT
APPROACH
CHART - ICAO**

AD ELEV 16ft
HEIGHTS RELATED TO
THR RWY 10 - ELEV 16ft



KOTA BHARU/SULTAN ISMAIL PETRA
PENINSULAR MALAYSIA
NDB (Cat A & B)
RWY 10

SMC 121.6
TWR 122.5

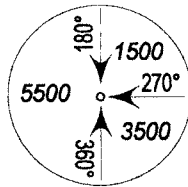


ELEV 16ft
THR RWY 10
NM FROM NDB

Category of Aircraft	OCA(OCH)					
	A	B	C	D		
NDB	450 (434)					
Time to Threshold Runway 10 from FAP n distance 6.0 nautical miles						
Ground Speed (knots)	70	90	120	150	180	210
Minutes:Seconds	5:05	4:00	3:00	2:24	-	-
4.8% descent (ft/mins)	342	438	584	730	-	-

**INSTRUMENT
APPROACH
CHART - ICAO**

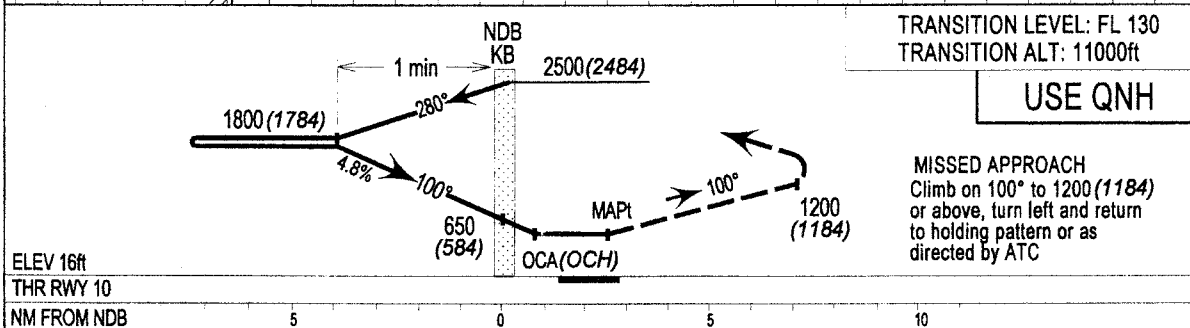
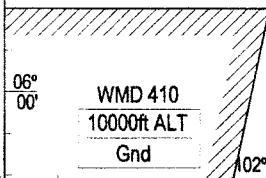
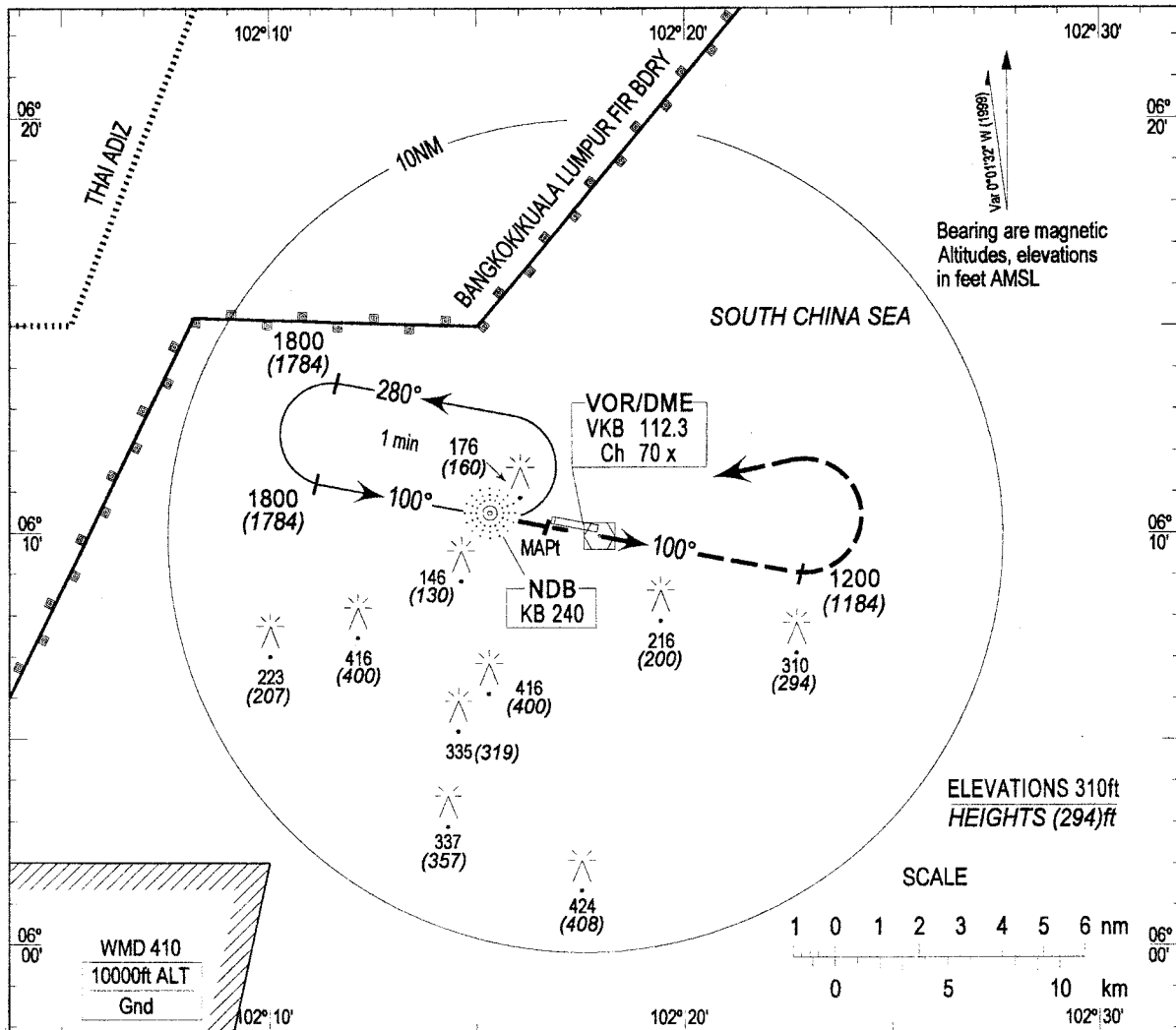
AD ELEV 16ft
HEIGHTS RELATED TO
THR RWY 10 - ELEV 16ft



KOTA BHARU/SULTAN ISMAIL PETRA
PENINSULAR MALAYSIA

SMC 121.6
TWR 122.5

NDB
RWY 10 (CAT C & D)



Category of Aircraft	OCA(OCH)					
	A	B	C	D		
NDB	-	-	450 (434)	-		
Time to Threshold Runway 10 from FAP n distance 6.0 nautical miles						
Ground Speed (knots)	70	90	120	150	180	210
Minutes:Seconds	-	-	3:00	2:24	2:00	1:43
4.8% descent (ft/mins)	-	-	584	730	876	1022

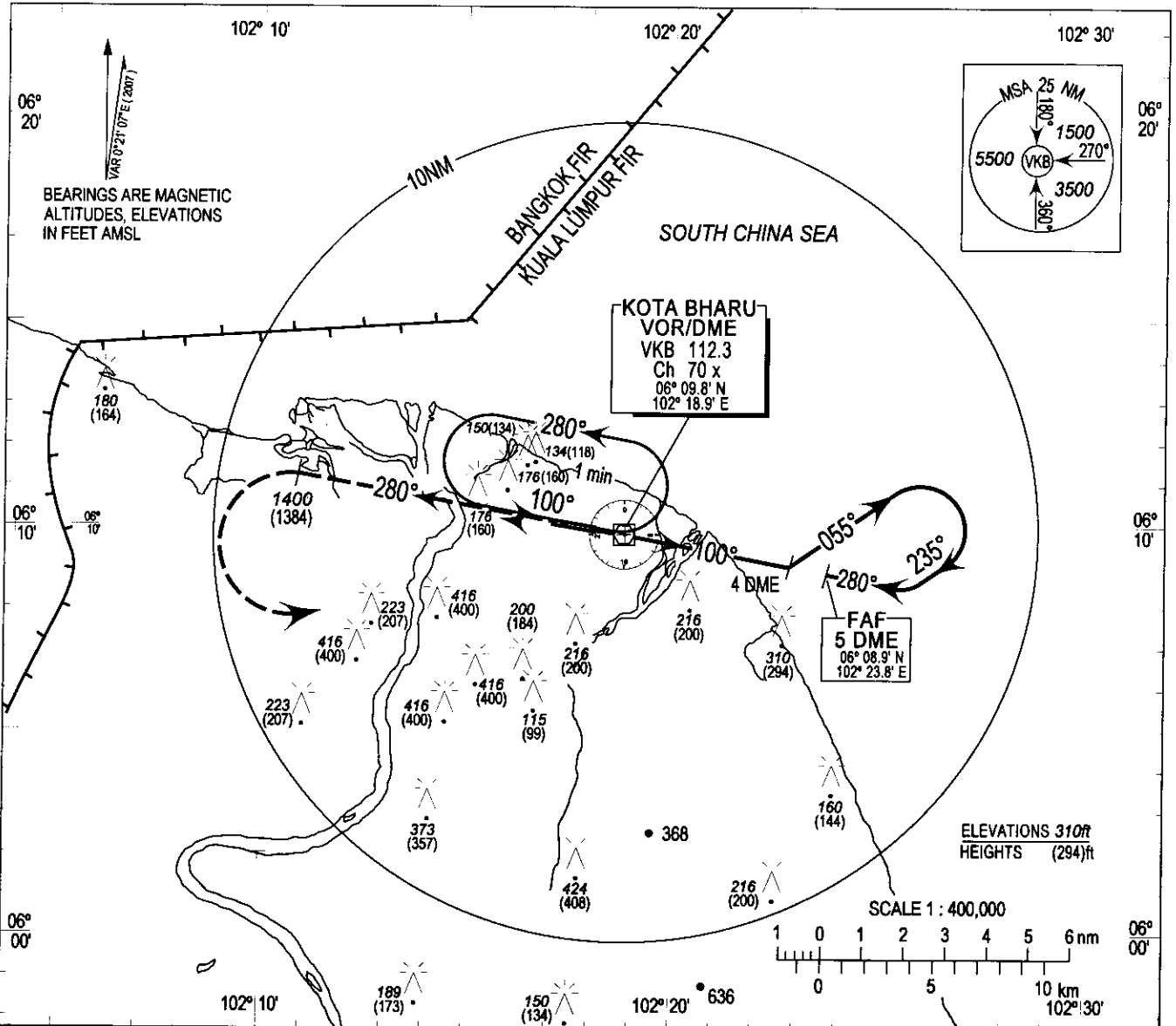
**INSTRUMENT
APPROACH
CHART - ICAO**

AD ELEV 16 ft
HEIGHT RELATED TO
THR RWY 28 - ELEV 16ft

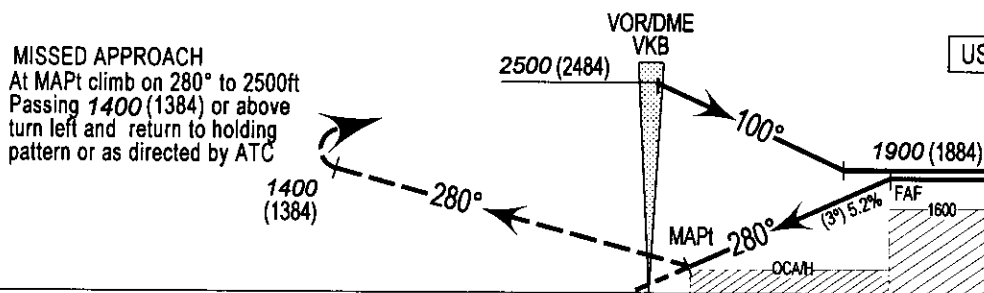
**KOTA BHARU/SULTAN ISMAIL PETRA
VOR/DME
RWY 28**

TRANSITION ALTITUDE
11000ft

SMC 121.6
TWR 122.5



Distance by DME	0.7	1	2	3	4	5
ALT (3° APCH PATH)	450	600	790	1230	1550	1900



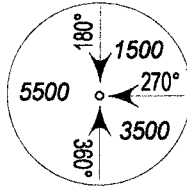
NM FROM VOR 8 5 0 4 5 10

OCA (OCH)	A	B	C	D
Straight-in - Approach	450 (434) / 0.7 DME VKB			

Time to Threshold Runway 28 from FAFn 5.7 nautical miles						
Ground speed (knots)	70	90	120	150	180	210
Minutes : Seconds	4:35	3:48	2:51	2:17	1:54	1:38
5.2% descent (ft/min)	368	474	631	790	984	1106

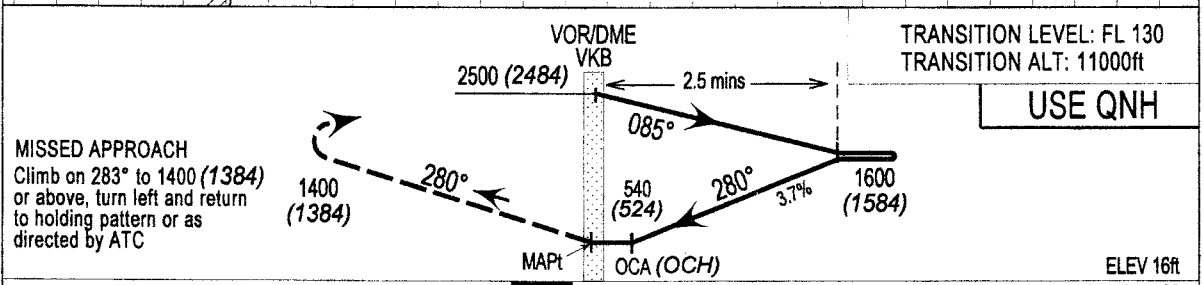
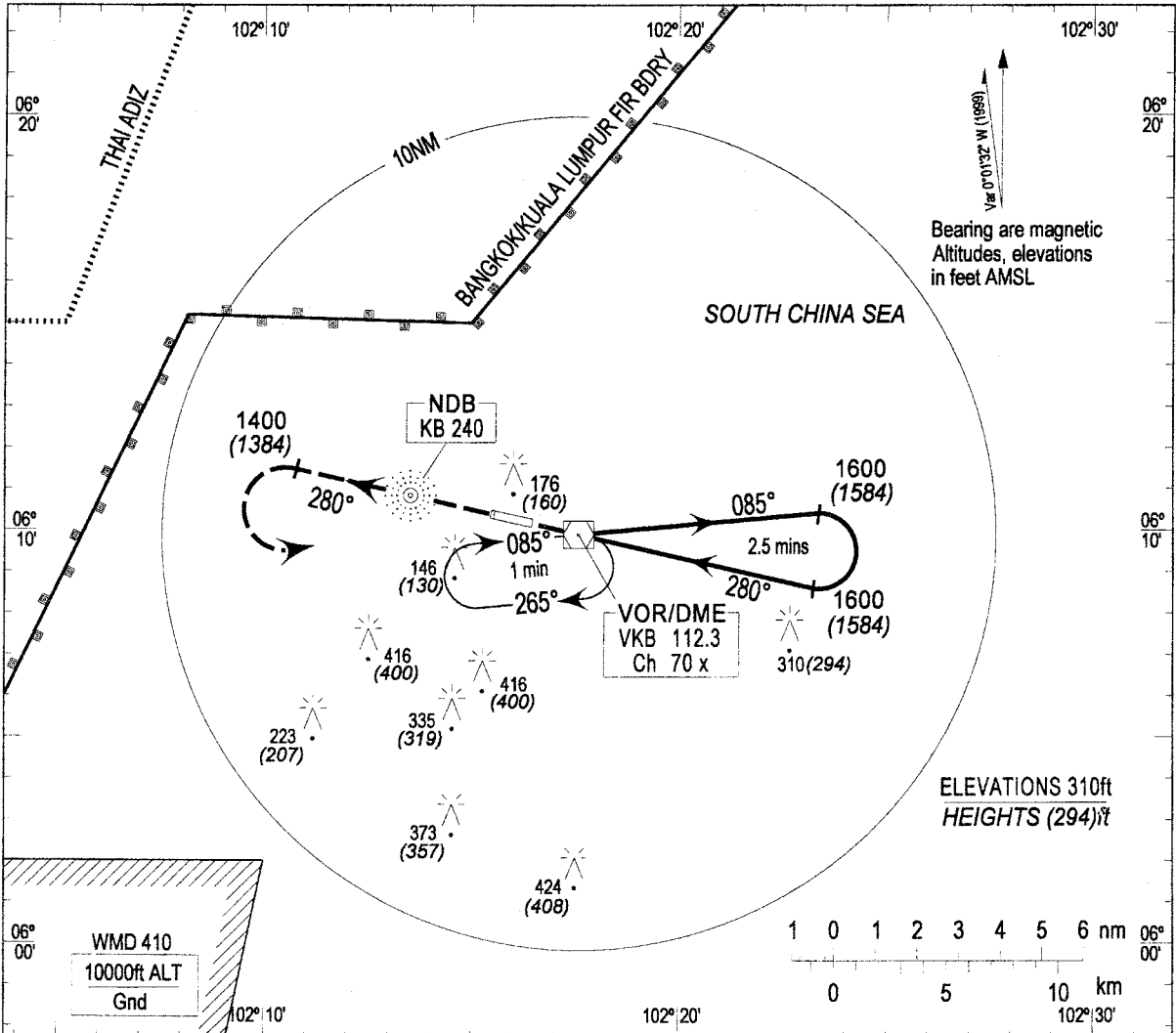
**INSTRUMENT
APPROACH
CHART - ICAO**

AD ELEV 16ft
HEIGHTS RELATED TO
THR RWY 10 - ELEV 16ft



KOTA BHARU/SULTAN ISMAIL PETRA
PENINSULAR MALAYSIA
VOR
RWY 28 (CAT A & B)

SMC 121.6
TWR 122.5

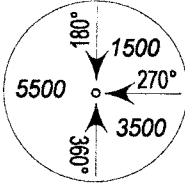


NM FROM VOR VKB

OCA (OCH)						
Category of Aircraft	A	B	C	D		
Straight-in Approach	540 (524)					
Time to Threshold Runway 28 from FAP n distance 7.7 nautical miles						
Ground Speed (knots)	70	90	120	150	180	210
Minutes:Seconds	6:36	5:08	3:51	3:05	-	-
3.3% descent (ft/mins)	232	300	400	500	-	-

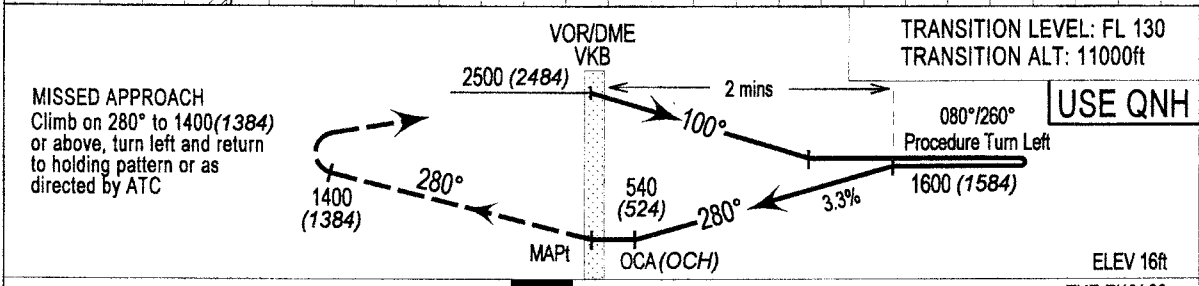
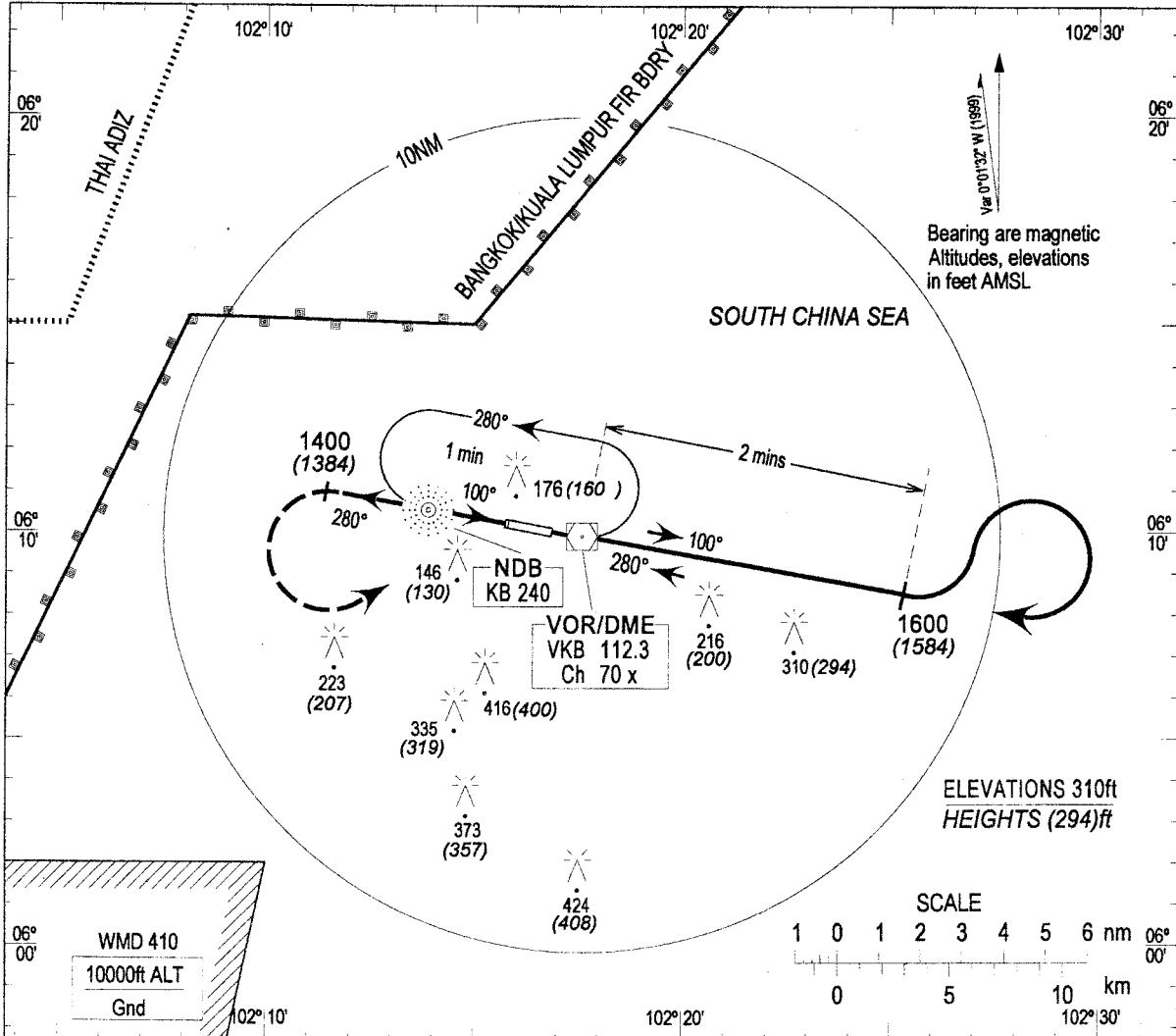
**INSTRUMENT
APPROACH
CHART - ICAO**

AD ELEV 16ft
HEIGHTS RELATED TO
THR RWY 28 - ELEV 16ft



KOTA BHARU/SULTAN ISMAIL PETRA
PENINSULAR MALAYSIA
VOR
RWY 28 (CAT C & D)

SMC 121.6
TWR 122.5

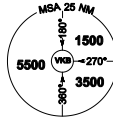


NM FROM VOR VKB

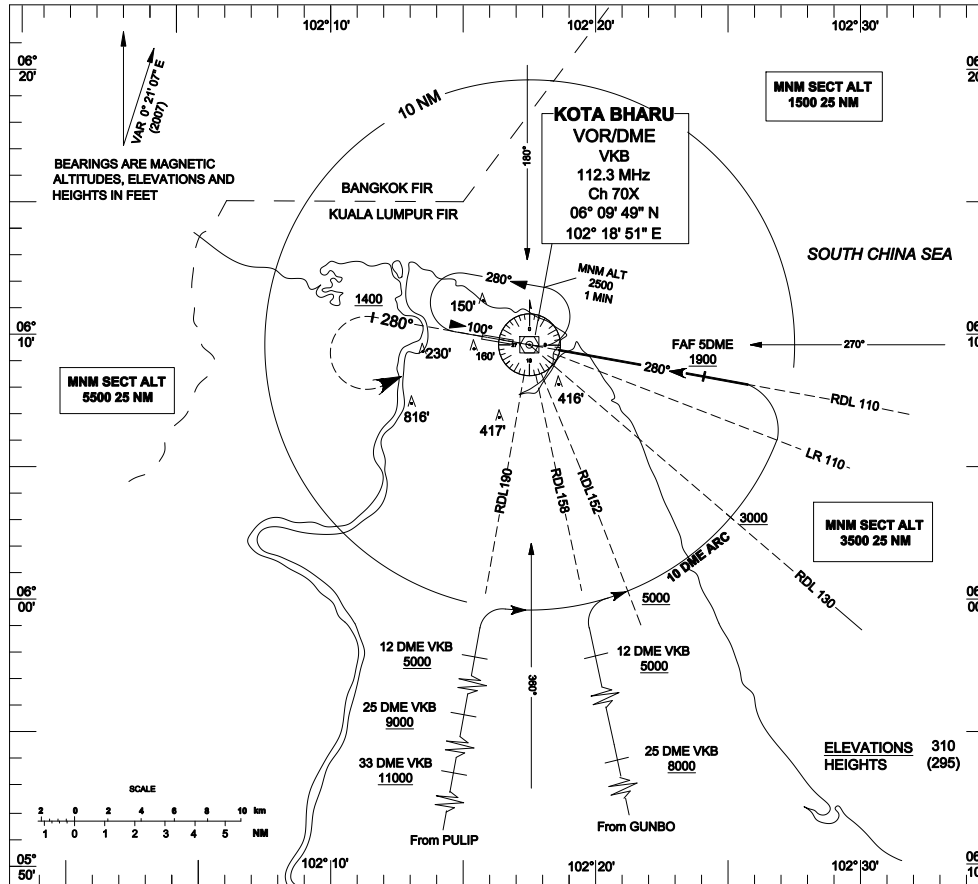
Category of Aircraft	OCA (OCH)					
	A	B	C	D		
VOR	-	-	540 (524)			
Time to Threshold Runway 28 from FAP n distance 7.7 nautical miles						
Ground Speed (knots)	70	90	120	150	180	210
Minutes:Seconds	-	-	3:51	3:05	2:34	2:12
3.3% descent (ft/mins)	-	-	400	500	597	697

**INSTRUMENT
APPROACH
CHART - ICAO**

AERODROME . ELEV. 16 FT
HEIGHTS RELATED TO
THR RWY 28 ELEV. 16 FT

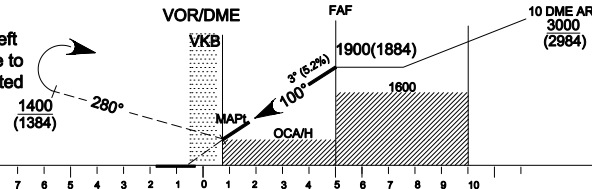


**KOTA BHARU / SULTAN ISMAIL PETRA
VOR / DME ARC
RWY 28**
TWR - 122.5
SMC - 121.6



TRANSITION LEVEL : FL 130
TRANSITION ALT : 11,000

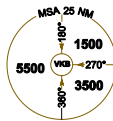
MISSED APPROACH
Climb on heading 280° turn left passing 1400(1384) or above to VKB VOR to hold or as directed by ATC



	A	B	C	D		
OCA/ (H)	450(434) / 0.7 DME					
Dist by DME	5	4	3	2	1	0.7
Alt(3° Apch Path)	1900	1550	1230	790	600	450
GS (kts)	70	90	120	150	180	210
5.2% Descent(ft/min)	368	474	631	790	984	1106

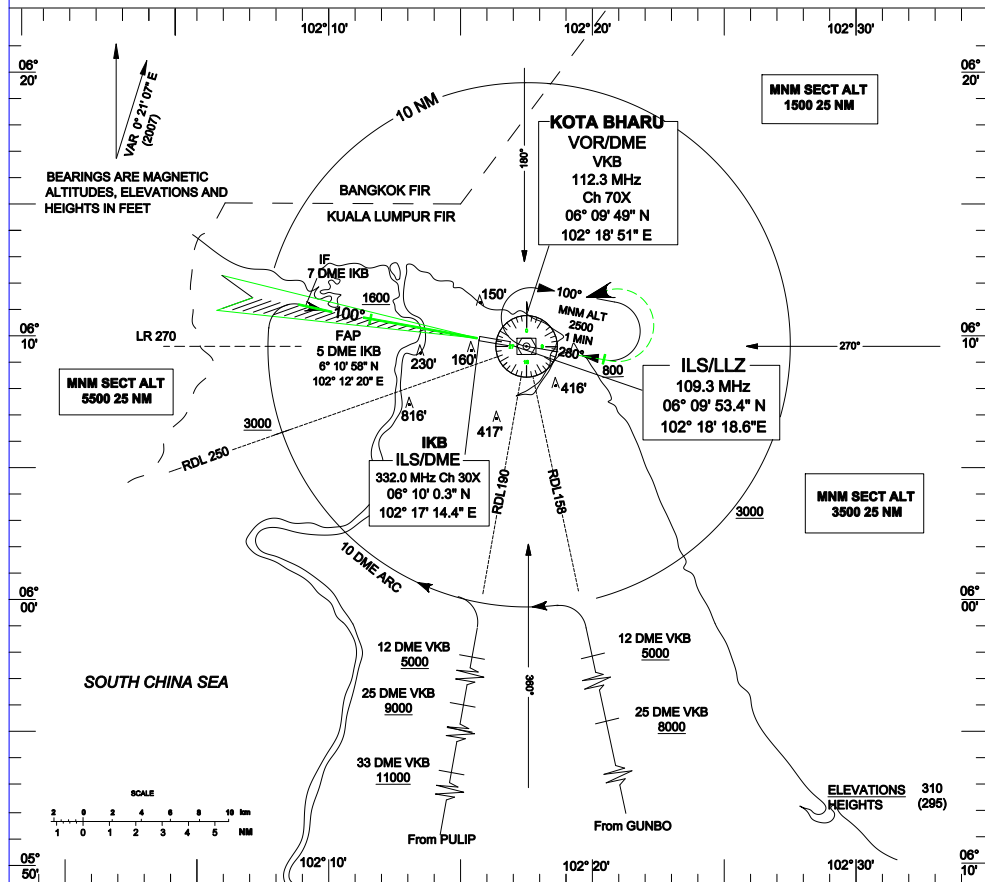
INSTRUMENT APPROACH CHART - ICAO

AERODROME . ELEV. 16 FT
HEIGHTS RELATED TO
THR RWY 10 ELEV. 15 FT



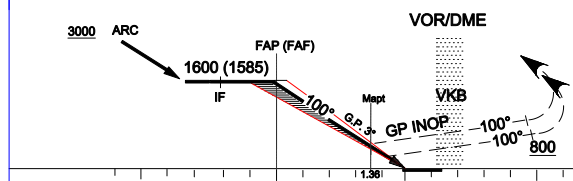
KOTA BHARU / SULTAN ISMAIL PETRA ILS DME ARC RWY 10

TWR - 122.5
SMC - 121.6



TRANSITION LEVEL : FL 130
TRANSITION ALT : 11,000

MISSED APPROACH
At MAPt climb on Hdg 100° to 2500 ft.
On passing 800(784) turn left and track to VKB to hold or as directed by ATC.
Max. IAS 230 kts. in turn - FIR BDY



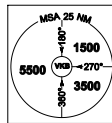
NM FROM IKB	11	10	9	8	7	6	5	4	3	2	1	0	1	2	3	4	5
NM FROM VOR																	

Category of Aircraft	OCA / H			
	A	B	C	D
Cat. 1	215(200)	222(207)	230(215)	241(226)
GP INOP	450(435) / 1.36 DME IKB(3.6VKB)			

ALTITUDE / HEIGHT ON FINAL APPROACH					Rate of descent						
5 DME	4 DME	3 DME	2 DME	1.36 DME	ft / min	70	90	120	150	180	210
1600 (1585)	1290 (1275)	970 (955)	640 (625)	450 (435)	min : sec	3 : 05	2 : 24	1 : 48	1 : 26	1 : 12	1 : 02
					Rate of descent	370	480	640	800	950	1110

**INSTRUMENT
APPROACH
CHART - ICAO**

AERODROME . ELEV. 16 FT
HEIGHTS RELATED TO
THR RWY 10 ELEV. 15 FT

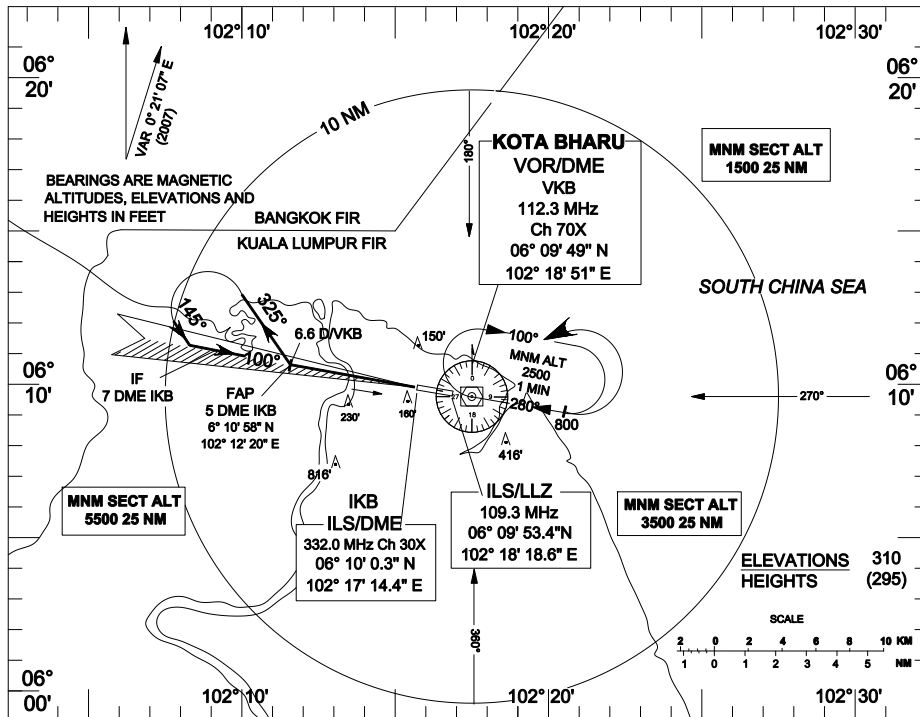


KOTA BHARU / SULTAN ISMAIL PETRA

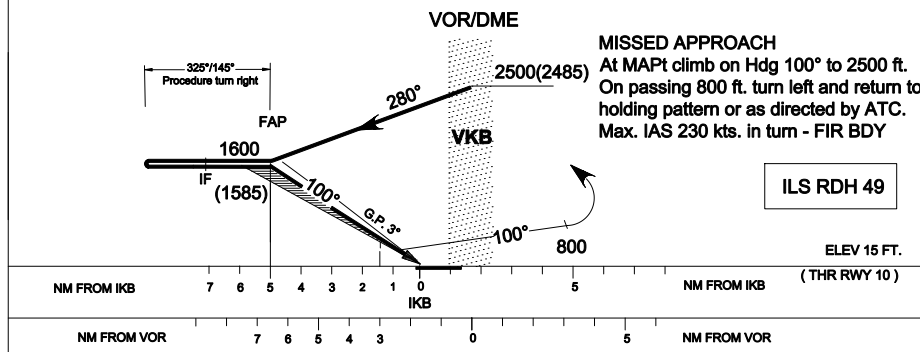
ILS VOR/DME

RWY 10

TWR - 122.5
SMC - 121.6



TRANSITION LEVEL : FL 130
TRANSITION ALT : 11,000

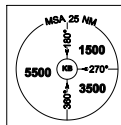


OCA / H	A	B	C	D
Straight - in Approach	Cat. 1 215(200)	222(207)	230(215)	241(226)
	GP INOP 450(435) / 1.36 DME IKB			

ALTITUDE / HEIGHT ON FINAL APPROACH												
5 DME	4 DME	3 DME	2 DME	1.36 DME	fts.	70	90	120	150	180	210	
1600 (1585)	1290 (1275)	970 (955)	640 (625)	450 (435)	FAP - MAPt 3.6 NM	min : sec	3:05	2:24	1:48	1:26	1:12	1:02
					Rate of descent	ft / min	370	480	640	800	950	1110

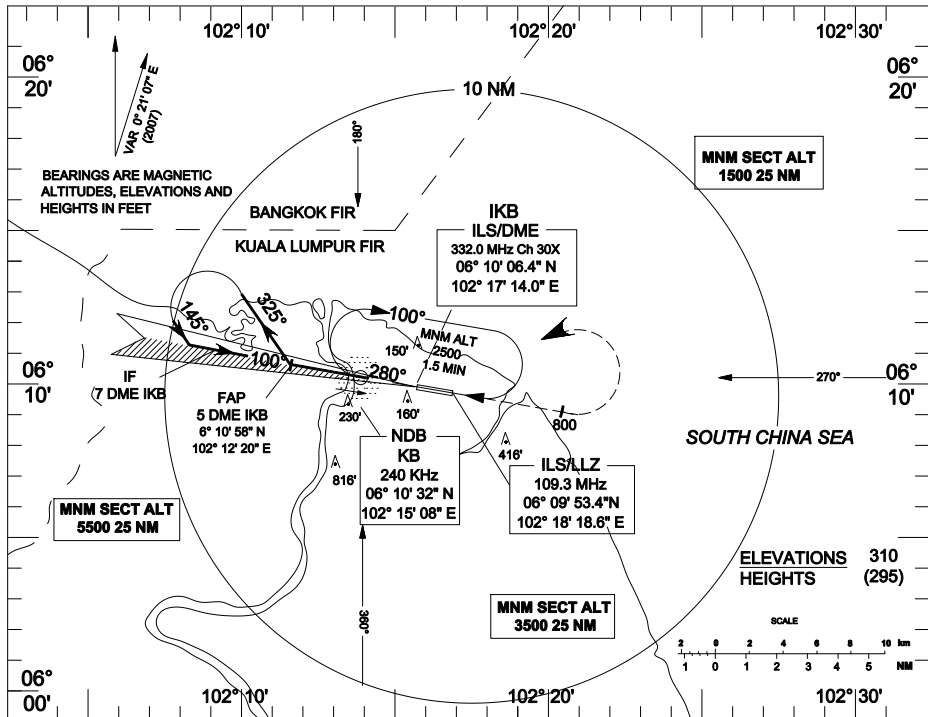
**INSTRUMENT
APPROACH
CHART - ICAO**

AERODROME . ELEV. 16 FT
HEIGHTS RELATED TO
THR RWY 10 ELEV. 15 FT

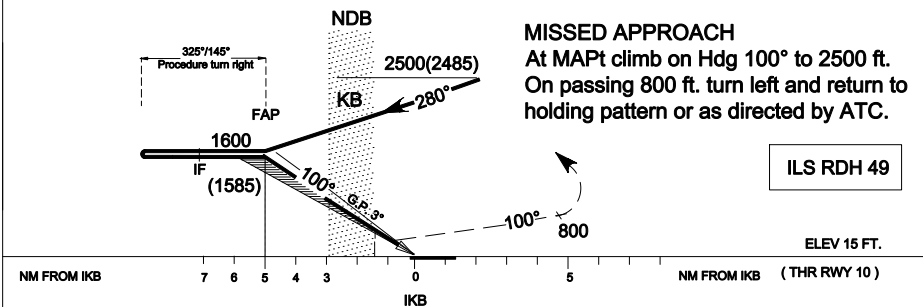


**KOTA BHARU / SULTAN ISMAIL PETRA
ILS NDB RWY 10
CAT A / B**

TWR - 122.5
SMC - 121.6



TRANSITION LEVEL : FL 130
TRANSITION ALT : 11,000

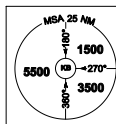


OCA / H		A	B
Straight-in Approach	Cat. 1	215(200)	222(207)
	GP INOP	450(435) / 1.36 DME IKB	

ALTITUDE / HEIGHT ON FINAL APPROACH															
5 DME	4 DME	3 DME	2 DME	1.36 DME	FAP - MAPt 3.6 NM	min	sec	Rate of descent	ft / min	70	90	120	150	180	210
1600 (1585)	1290 (1275)	970 (955)	640 (625)	450 (435)		3:05	2:24	370	370	480	640	800	950	1110	1110

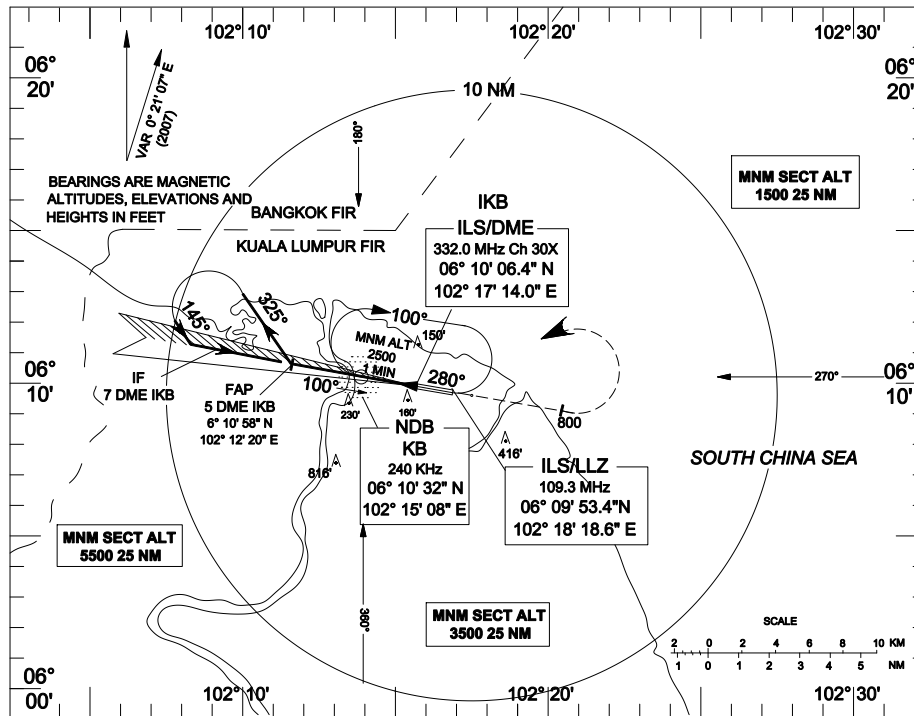
**INSTRUMENT
APPROACH
CHART - ICAO**

AERODROME . ELEV. 16 FT
HEIGHTS RELATED TO
THR RWY 10 ELEV. 15 FT

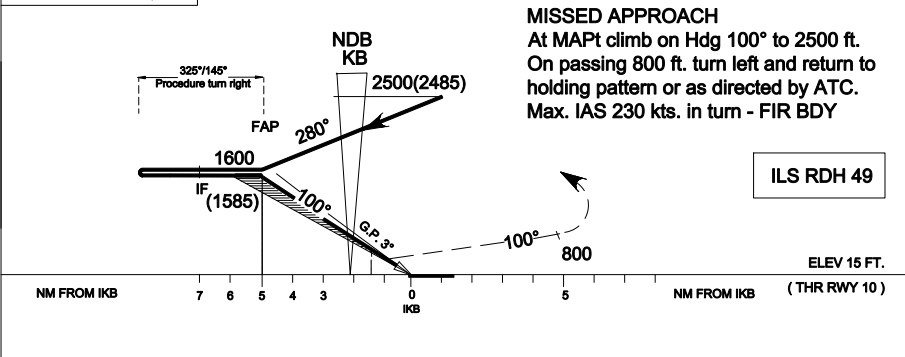


**KOTA BHARU / SULTAN ISMAIL PETRA
ILS NDB RWY 10
CAT C / D**

TWR - 122.5
SMC - 121.6



TRANSITION LEVEL : FL 130
TRANSITION ALT : 11,000



OCA / H	C	D
Straight - In Approach	Cat. 1 230(215)	241(228)
	GP INOP 450(435) / 1.36 DME IKB	

ALTITUDE / HEIGHT ON FINAL APPROACH												
5 DME	4 DME	3 DME	2 DME	1.36 DME	FAF - MAPt 3.6 NM	kts.	70	90	120	150	180	210
1600 (1585)	1290 (1275)	970 (955)	640 (625)	450 (435)	min : sec	3:05	2:24	1:48	1:26	1:12	1:02	
					Rate of descent	ft / min	370	480	640	800	950	1110