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**WMKP AD 2.24 CHARTS RELATED TO PENANG INTERNATIONAL AIRPORT**

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**AERODROME/  
HELIPORT CHART - ICAO**

**APRON ELEV.  
3.4 m**

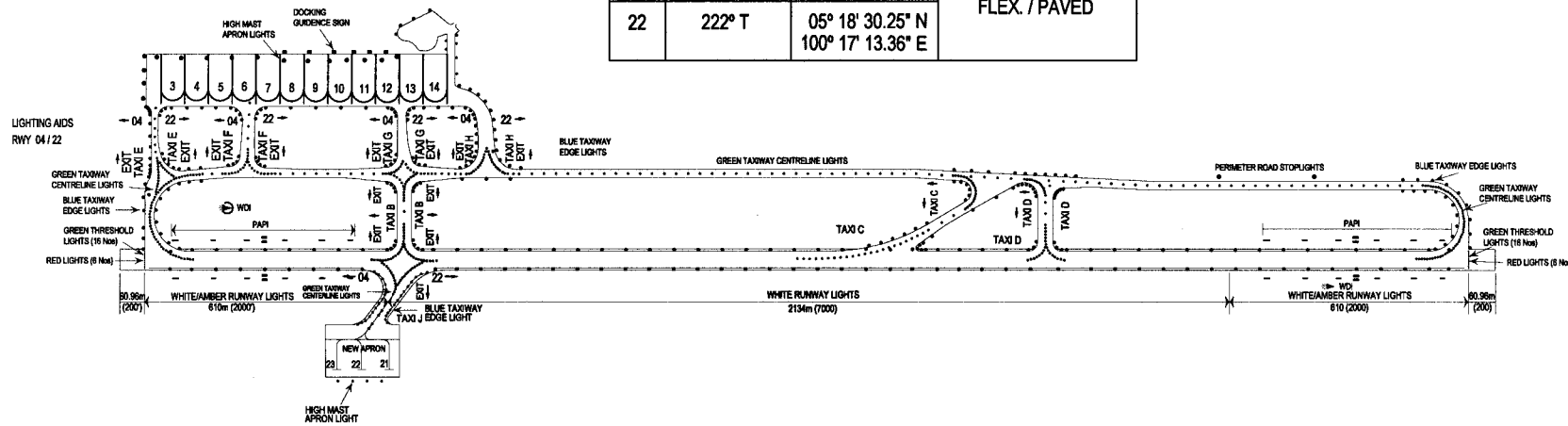
**05° 17' 50" N  
100° 16' 36" E**

**TWR 121.1  
SMC 121.6  
ATIS 126.4**

**PENANG / PENANG**

RWY	DIRECTION	THR	BEARING STRENGTH
04	042° T	05° 17' 09.42" N 100° 16' 00.14" E	PCN 105 / F / B / X / U FLEX. / PAVED
22	222° T	05° 18' 30.25" N 100° 17' 13.36" E	

MAGNETIC VARIATION 0° 16' 14" W (2006)



STRAITS OF MALACCA

DVOR/DME  
VPG 116.2 MHz  
Ch 109 x  
05° 16' 46.7" N  
100° 15' 37.4" E

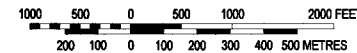
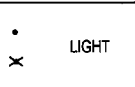
CALVERT APPROACH LIGHTS MODIFIED  
TO USE DOUBLE FITTING IN LIEU OF  
STANDARD SINGLE FITTING

ILS GP  
333.8 MHz  
Ch 36 x  
05° 17' 16.7" N  
100° 16' 13.4" E

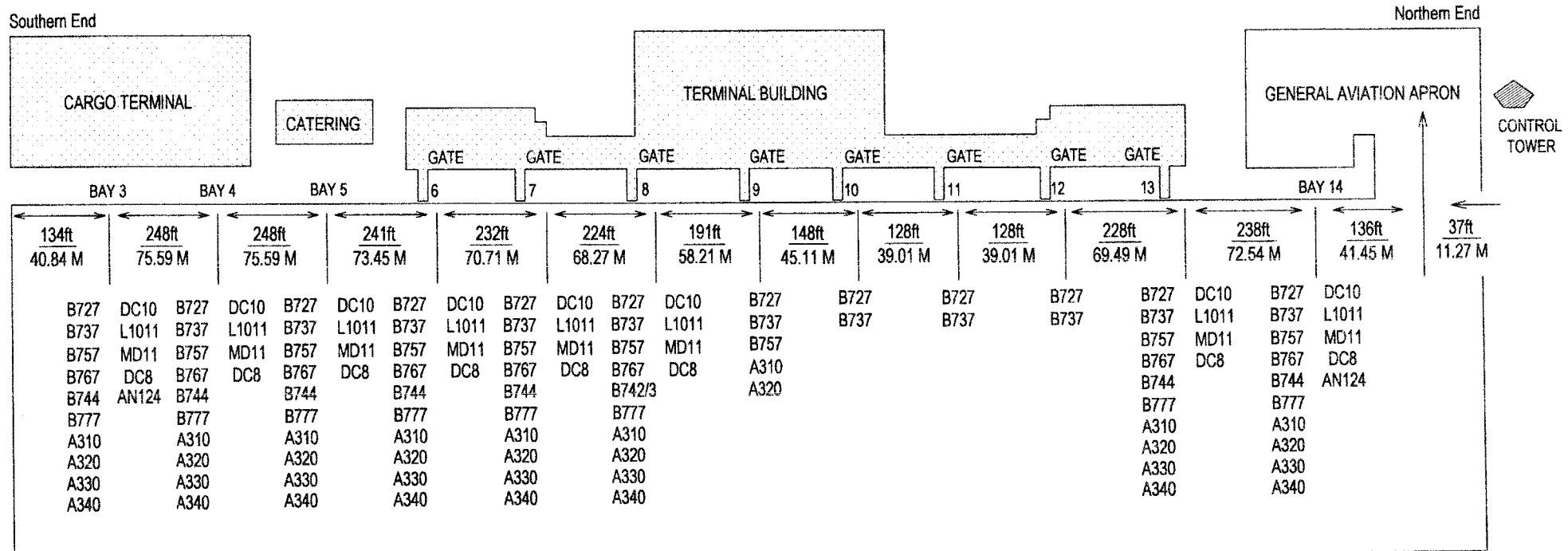
ILS ILLZ  
IPG 109.9 MHz  
05° 18' 40.7" N  
100° 17' 25.4" E

ILZ AERIAL

**LEGEND**



## PENANG INTERNATIONAL AIRPORT AIRCRAFT STAND LAYOUT PLAN



Apron size = 784m x 134m ( 2572ft x 440ft )

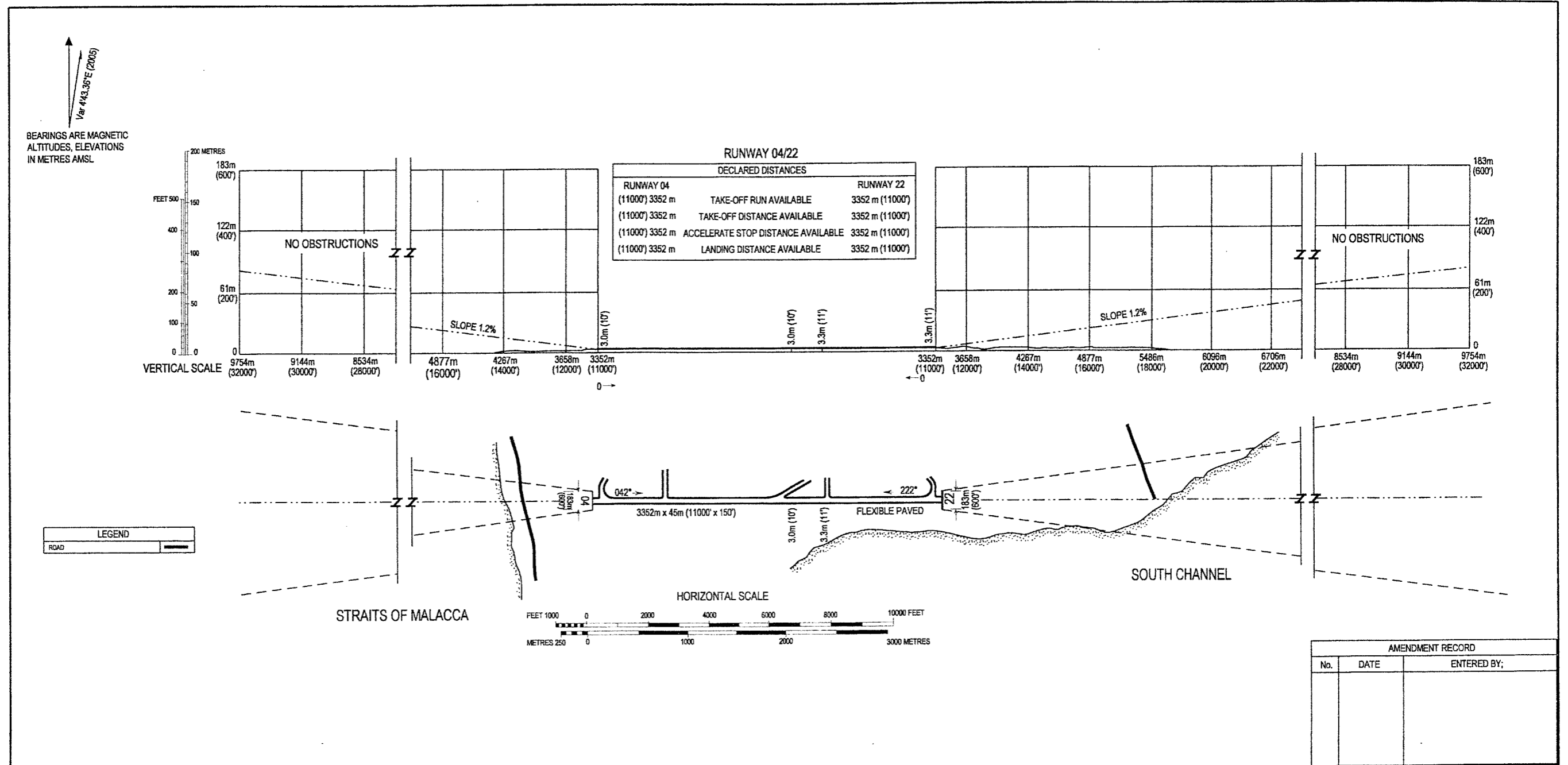
**AIRCRAFT PARKING / DOCKING - STAND POSITION**

Aircraft Stand Number	GEO POSITION (WGS 84)	
	LATITUDE (N)	LONGITUDE (E)
3	051722	1001544
4	051724	1001546
5	051724	1001547
6	051727	1001549
7	051729	1001550
8	051730	1001552
9	051732	1001553
10	051733	1001554
11	051734	1001655
12	051735	1001556
13	051736	1001557
14	051738	1001559
21	051714	1001620
22	051712	1001618
23	051711	1001617

# AERODROME OBSTACLE CHART - ICAO TYPE A - (OPERATING LIMITATIONS)

**PENANG/PENANG  
PENINSULAR MALAYSIA**

ELEV. 3.4M (11FT)

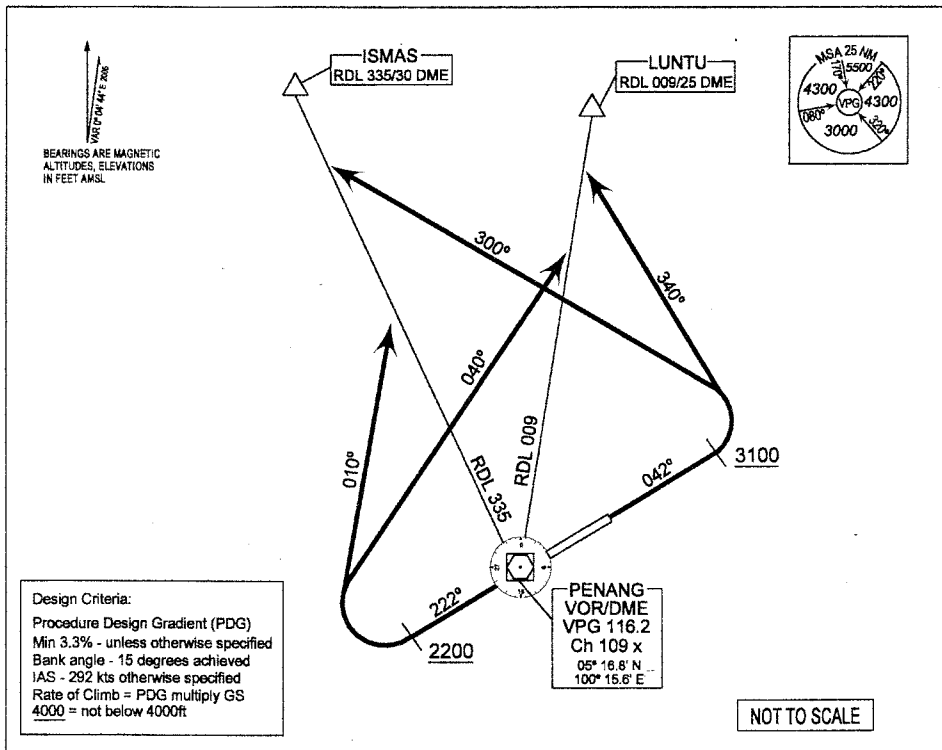


STANDARD DEPARTURE CHART  
INSTRUMENT (SID) - ICAO

TRANSITION ALTITUDE  
11000 ft

TWR 121.1  
SMC 121.6

PENANG / PENANG  
DEPARTURES NORTH  
RWY 04/22



**Design Criteria:**  
 Procedure Design Gradient (PDG)  
 Min 3.3% - unless otherwise specified  
 Bank angle - 15 degrees achieved  
 IAS - 292 kts otherwise specified  
 Rate of Climb = PDG multiply GS  
 4000 = not below 4000ft

NOT TO SCALE

DEPARTURES NORTH

RWY 04

- \* PDG : for ISMAS 6.0% to 4300ft - TFC
- \* PDG : for LUNTU 6.0% to 4300ft - TFC
- \* Track 042°
- \* On passing 3100ft, turn left

FOR ISMAS 1C DEPARTURE

- \* Track 300°
- \* Intercept RDL 335 VPG outbound to GOMAT

FOR LUNTU 1C DEPARTURE

- \* Track 340°
- \* Intercept RDL 009 VPG outbound to LUNTU

RWY 22

- \* PDG : for ISMAS 5.0% to 4300ft - TFC
- \* PDG : for LUNTU 5.0% to 4300ft - TFC
- \* Track 222°
- \* On passing 2200ft, turn right

FOR ISMAS 1D DEPARTURE

- \* Track 010°
- \* Intercept RDL 335 VPG outbound to GOMAT

FOR LUNTU 1D DEPARTURE

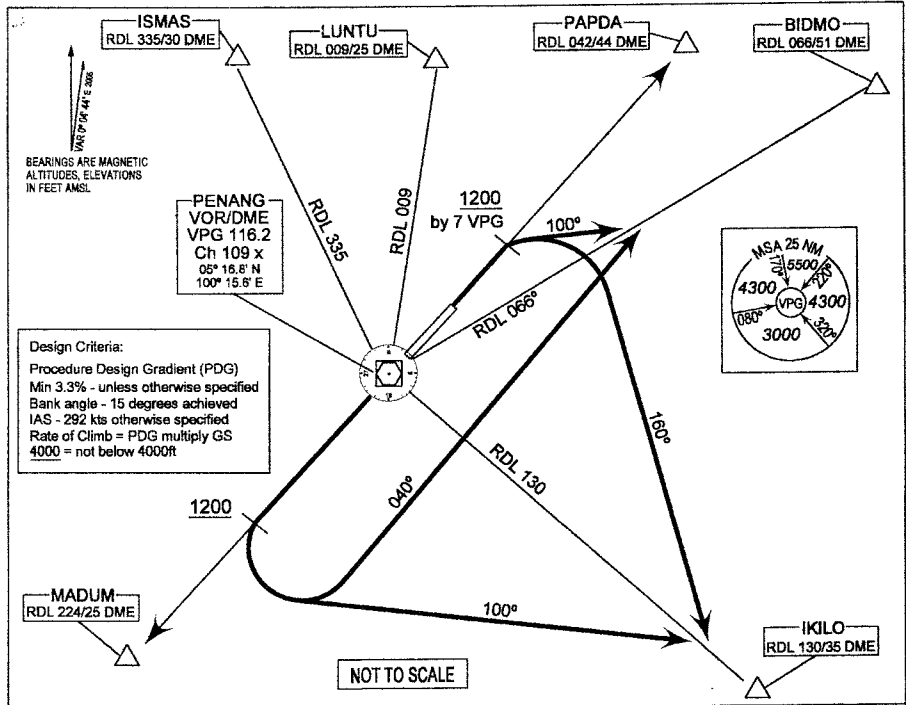
- \* Track 040°
- \* Intercept RDL 009 VPG outbound to LUNTU

STANDARD DEPARTURE CHART  
INSTRUMENT (SID) - ICAO

TWR 121.1  
SMC 121.6

PENANG / PENANG  
DEPARTURES NORTHEAST  
EAST, SOUTH & SOUTHWEST  
RWY 04/22

TRANSITION ALTITUDE  
11000 ft



DEPARTURES NORTHEAST, EAST & SOUTHWEST

**RWY 04**

- \* PDG : for PAPDA 5% to 5500ft - TFC
- \* PDG : for BIDMO 5% to FL 140 - CTR
- \* Track 042°

**FOR PAPDA 1C DEPARTURE**

- \* Intercept RDL 042 VPG outbound to PAPDA

**FOR BIDMO 1C DEPARTURE**

- \* On passing 1200ft not later than 7 VPG
- \* Turn right, Track 100°
- \* Intercept RDL 066 VPG outbound to BIDMO

**FOR IKILO 1C DEPARTURE**

- \* On passing 1200ft not later than 7 VPG
- \* Turn right, Track 160°
- \* Intercept RDL 130 VPG outbound to IKILO

**RWY 22**

- \* PDG : for MADUM 5% to 9000ft - CTR
- \* Track 222°

**FOR MADUM 1D DEPARTURE**

- \* Intercept RDL 224 VPG outbound to MADUM

**FOR BIDMO 1D DEPARTURE**

- \* On passing 1200ft
- \* Turn left, Track 040°
- \* Intercept RDL 066 VPG outbound to BIDMO

**FOR IKILO 1D DEPARTURE**

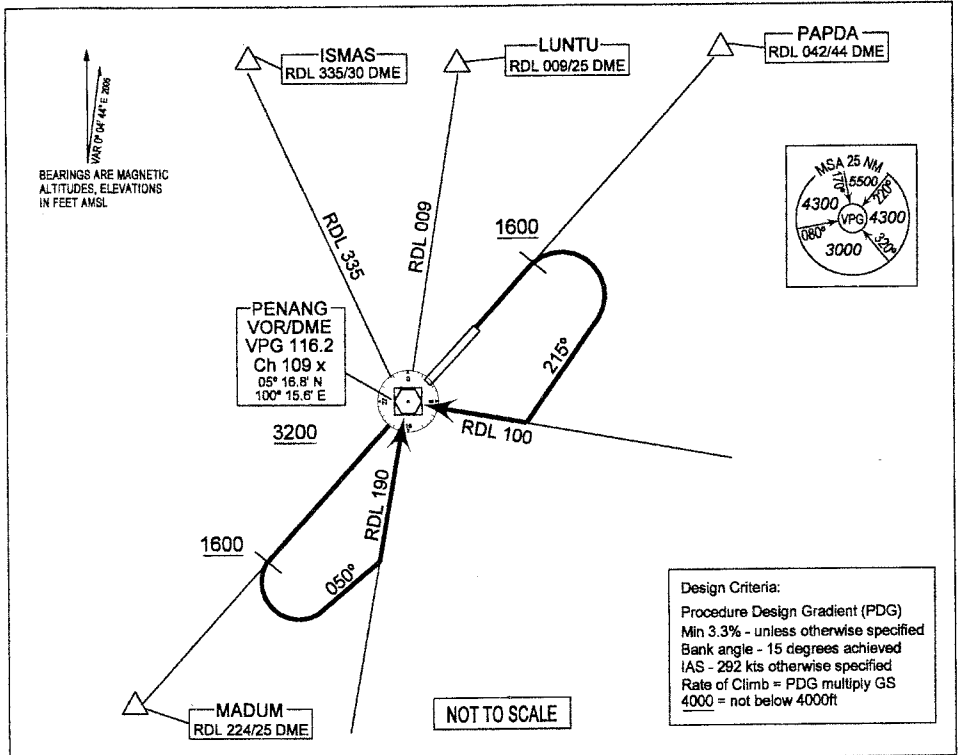
- \* On passing 1200ft
- \* Turn left, Track 100°
- \* Intercept RDL 130 VPG outbound to IKILO

STANDARD DEPARTURE CHART  
INSTRUMENT (SID) - ICAO

TRANSITION ALTITUDE  
11000 ft

TWR 121.1  
SMC 121.6

PENANG / PENANG  
DEPARTURES VPG  
RWY 04/22



DEPARTURES VPG

RWY 04

FOR VPG 1C DEPARTURE

- \* Track 042°
- \* On passing 1600ft, turn right
- \* Track 215°
- \* Intercept RDL 100 inbound to VPG
- \* Cross VPG at 3200ft or above

RWY 22

FOR VPG 1D DEPARTURE

- \* Track 222°
- \* On passing 1600ft, turn left
- \* Track 050°
- \* Intercept RDL 190 inbound to VPG
- \* Cross VPG at 3200ft or above

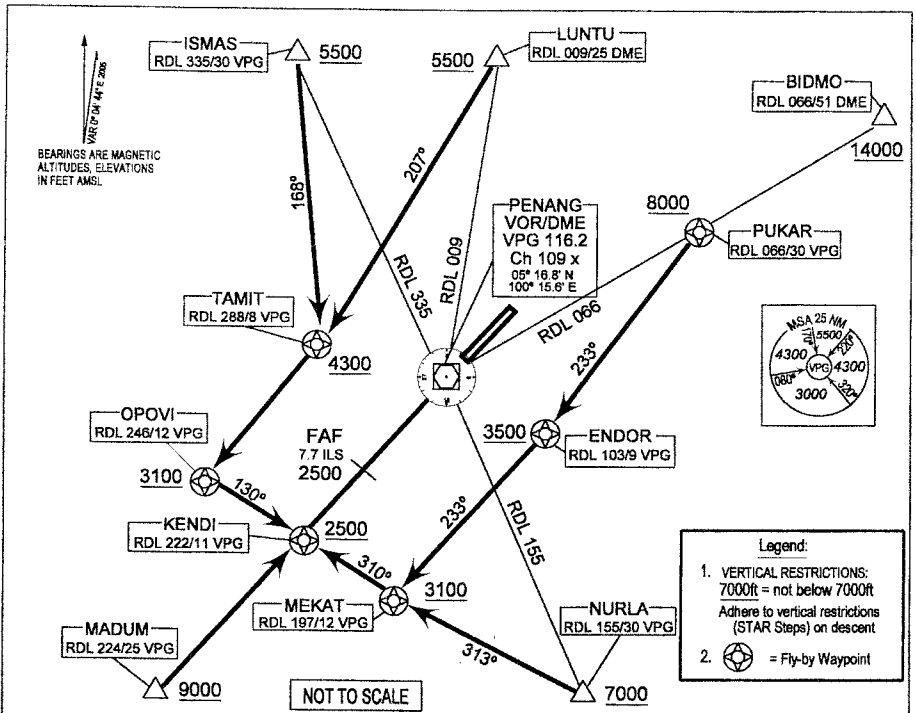


STANDARD ARRIVAL CHART  
INSTRUMENT (STAR) - ICAO

TRANSITION ALTITUDE  
11000 ft

TWR 121.1  
SMC 121.6

PENANG / PENANG  
RWY 04



RWY 04

ISMAS 1A ARRIVAL

- \* From ISMAS track 168° to TAMIT
- \* Then turn right track 207° to OPOVI
- \* At OPOVI turn left track 130° to KENDI

LUNTU 1A ARRIVAL

- \* From LUNTU track to 207° to TAMIT then to OPOVI
- \* At OPOVI turn left track 130° to KENDI

BIDMO 1A ARRIVAL

- \* From BIDMO track to PUKAR
- \* Then turn left track 233° to ENDOR and MEKAT
- \* At MEKAT turn right track 310° to KENDI

NURLA 1A ARRIVAL

- \* From NURLA track 313° to MEKAT
- \* Then track 310° to KENDI

MADUM 1A ARRIVAL

- \* From MADUM track to KENDI

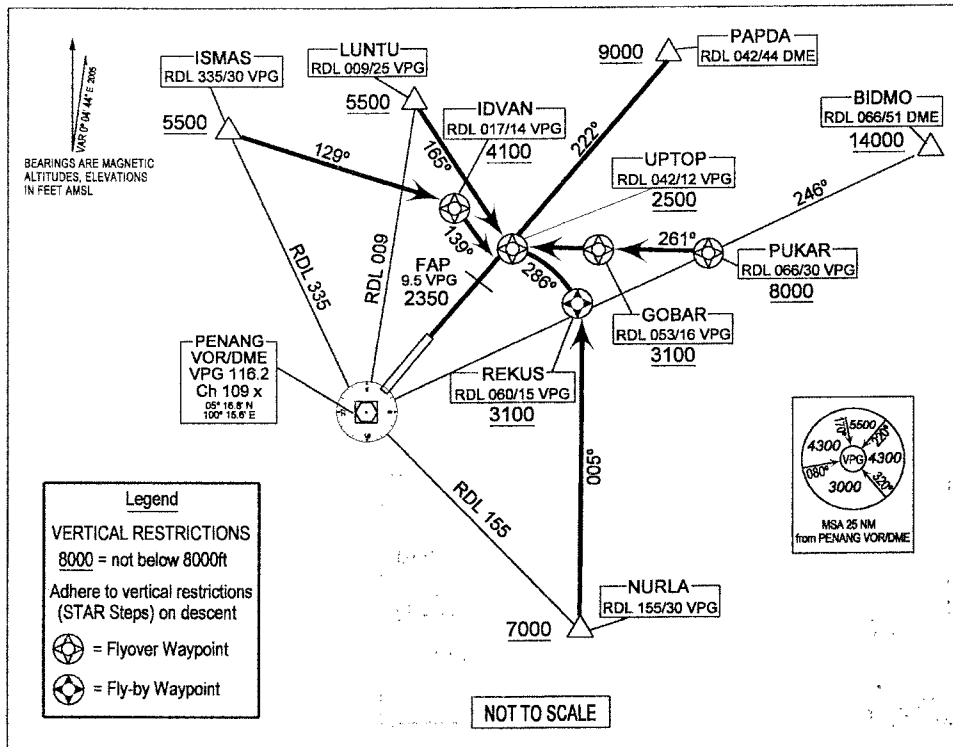
Note: Intercept LLZ for ILS Approach Runway 04

STANDARD ARRIVAL CHART  
INSTRUMENT (STAR) - ICAO

TRANSITION ALTITUDE  
11000 ft

TWR 121.1  
SMC 121.6

PENANG / PENANG  
RWY 22



**Legend**

**VERTICAL RESTRICTIONS**  
8000 = not below 8000ft

Adhere to vertical restrictions (STAR Steps) on descent

⊙ = Flyover Waypoint  
⊙ = Fly-by Waypoint

**RWY 22**

**ISMAS 1B ARRIVAL**

- \* From ISMAS track 129° to IDVAN
- \* Then turn right track 139° to UPTOP

**LUNTU 1B ARRIVAL**

- \* From LUNTU track 165° to UPTOP

**PAPDA 1B ARRIVAL**

- \* From PAPDA track 222° to UPTOP

**NURLA 1B ARRIVAL**

- \* From NURLA track 005° to REKUS
- \* Then turn left to 286° to UPTOP

**BIDMO 1B ARRIVAL**

- \* From BIDMO track 246° to PUKAR
- \* Then turn right track 261° to GOBAR and UPTOP

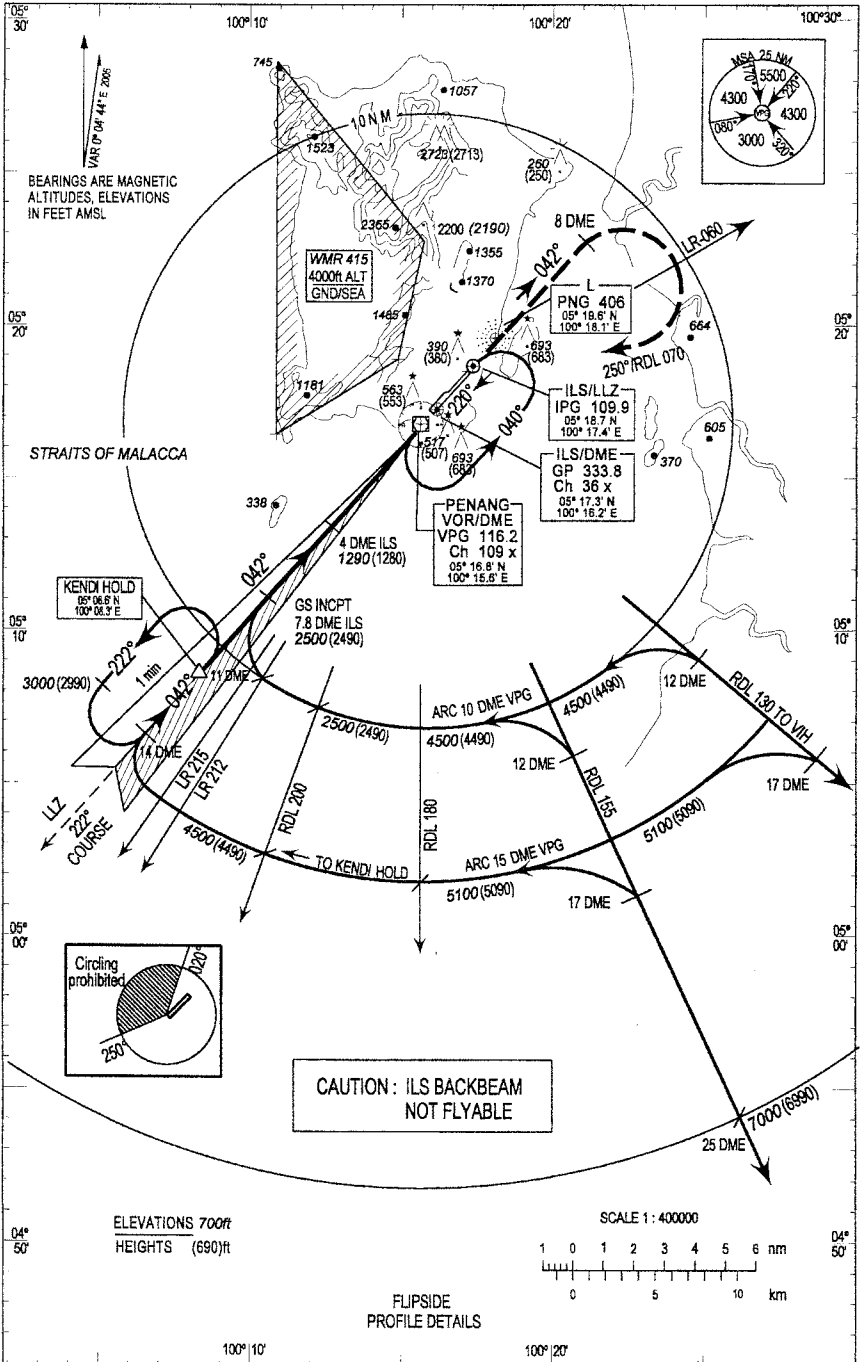
NOTE: Intercept RDL 042 for VOR/DME Approach Runway 22

# INSTRUMENT APPROACH CHART - ICAO

AD ELEV 11ft  
HEIGHTS RELATED TO THR RWY 04 - ELEV 10ft  
ILS REF DATUM 50ft

TWR - 121.1  
SMC - 121.6  
ATIS - 126.4

# PENANG/PENANG ILS (LLZ/DME & DME Arc) RWY 04



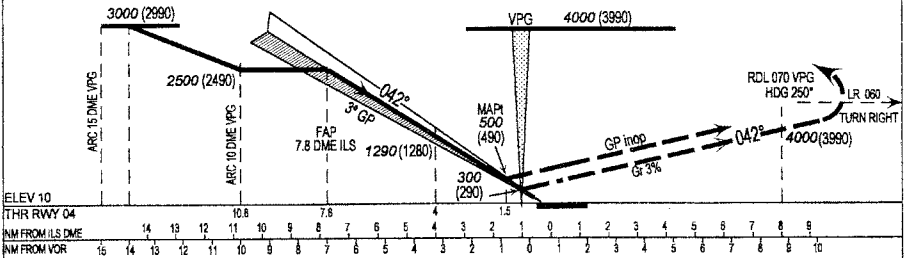
# PROFILE OF RWY 04 ILS (LLZ/DME & DME ARC)

HOLDING : MAXIMUM 210K TAS  
INTERMEDIATE: 150K TAS

TRANSITION LEVEL : FL 130  
TRANSITION ALT : 11000

USE QNH

**MISSED APPROACH**  
Climb 042° cross 8 DME VPG  
1700(1690) or above, turn right,  
Intercept RDL 070 VPG HDG 250°  
to VPG VOR HOLD at 4000(3990)  
or as directed by ATC



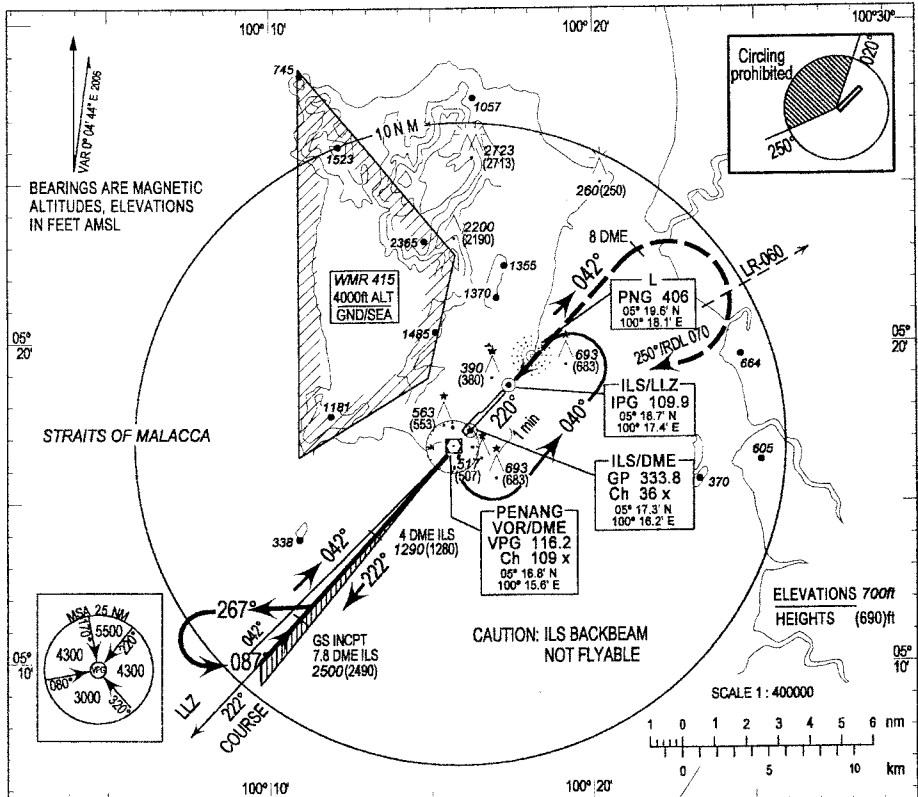
OCA (OCH)									
Cat. of Aircraft	A		B			C		D	
Cat. 1 Pres. Alt	300(290)								
LLZ / DME	540(530) / 1.5 DME								
Circling	1000(990)					1100(1090)			
CAUTION:	Circling Prohibited in sector 250° - 020° from Rwy 04								
DME Distance	7	6	5	4	3	2	1.5	1	-
Altitude	2240	1920	1610	1290	970	650	490	330	-
TIME TO THR RWY 04 FROM FAP DISTANCE 6.2NM									
Ground Speed (kts)	70	90	120	150	180	210			
Min : Sec	5:18	4:08	3:06	2:29	2:04	1:46			
3° (5%) Desc. (ft/min)	370	480	630	790	950	1110			

**INSTRUMENT  
APPROACH  
CHART - ICAO**

AD ELEV 11ft  
HEIGHTS RELATED TO  
THR RWY 04 - ELEV 10ft  
ILS REF DATUM 50ft

TWR - 121.1  
SMC - 121.6  
ATIS - 126.4

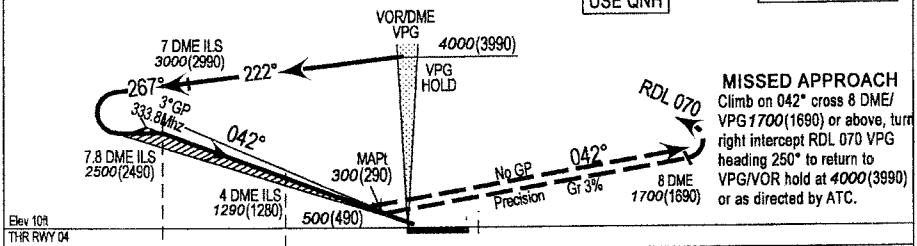
**PENANG / PENANG  
ILS (LLZ/DME)  
RWY 04**



HOLDING: MAX 210K TAS

USE QNH

TRANSITION LEVEL: FL 130  
TRANSITION ALT : 11000ft



Elev 10ft  
THR RWY 04  
NM FM ILS DME  
NM FM VPG VOR

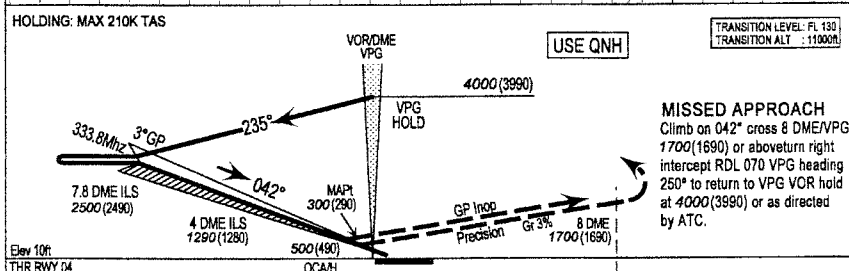
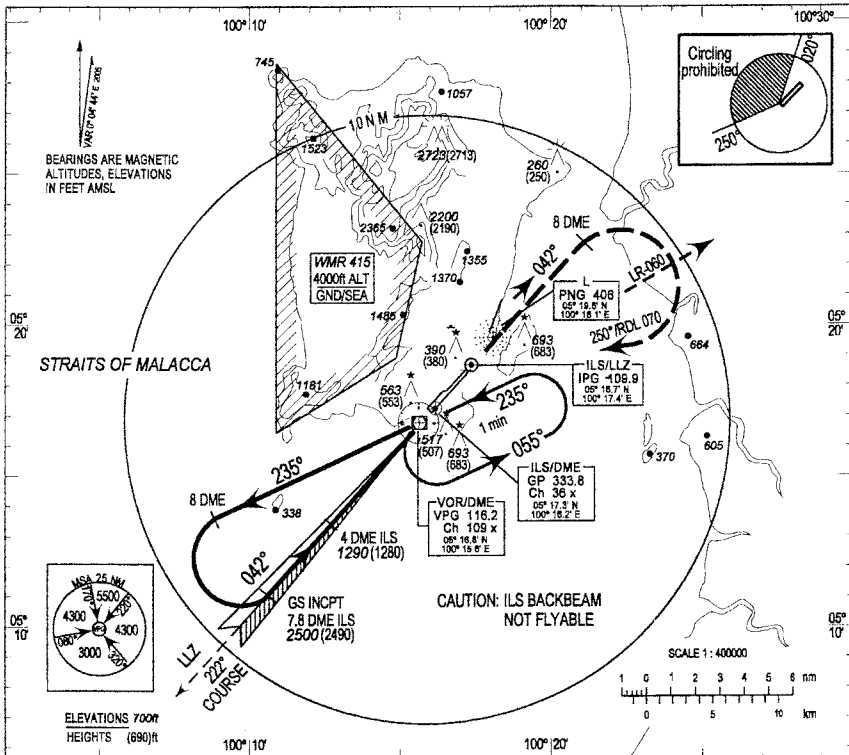
	OCA/H							
Cat. of Aircraft	A		B		C		D	
Cat. 1 Pres. Alt	300(290)							
LLZ / DME	540(530) / 1.5 DME							
Circling	1000(990)				1100(1090)			
CAUTION:	Circling Prohibited in sector 250° - 020° from Rwy 04							
DME Distance	7	6	5	4	3	2	1.5	1
Altitude	2240	1920	1610	1290	970	650	490	330
TIME TO THR RWY 04 FROM FAP DISTANCE 6.2NM								
Ground Speed (kts)	70	90	120	150	180	210		
Min. Sec	5:18	4:08	3:06	2:29	2:04	1:46		
5° (5%) Desc. (ft/min)	370	480	630	790	950	1110		

**INSTRUMENT APPROACH CHART - ICAO**

**AD ELEV 11ft**  
 HEIGHTS RELATED TO THR RWY 04 - ELEV 10ft  
 ILS REF DATUM 50ft

TWR - 121.1  
 SMC - 121.6  
 ATIS - 126.4

**PENANG/PENANG ILS (LLZ/DME & VOR/DME) RWY 04**



HOLDING: MAX 210K TAS

USE QNH

TRANSITION LEVEL: FL 130  
 TRANSITION ALT : 11000ft

Elev 10ft  
 THR RWY 04

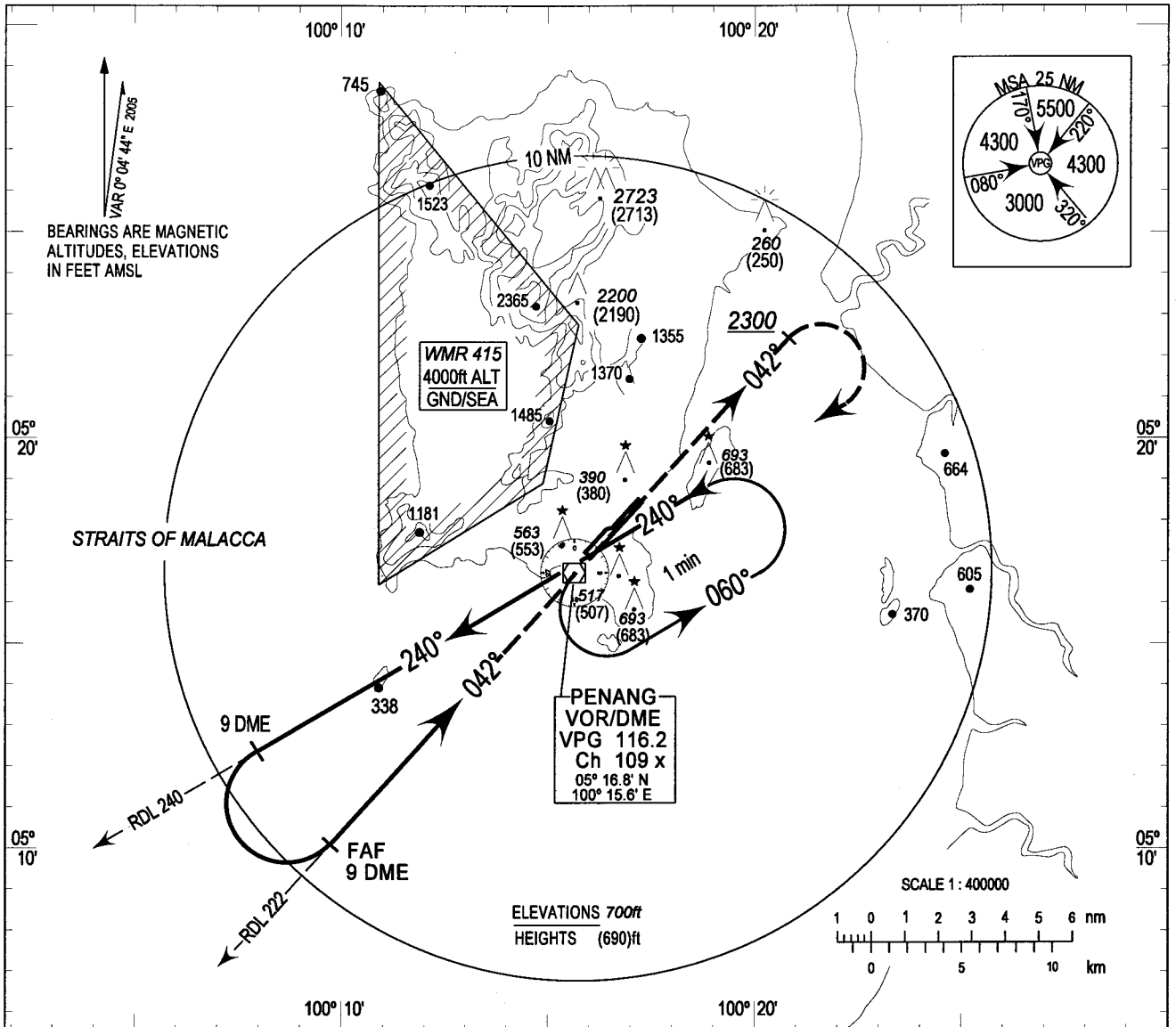
	OCA/H							
Cat. of Aircraft	A		B		C		D	
Cat. 1 Pres. Alt	300(290)							
LLZ / DME	540(530) / 1.5 DME							
Circling	1000(990)				1100(1090)			
CAUTION:	Circling Prohibited in sector 250° - 020° from Rwy 04							
DME Distance	7	6	5	4	3	2	1.5	1
Altitude	2240	1920	1610	1290	970	650	490	330
TIME TO THR RWY 04 FROM FAP DISTANCE 6.2NM								
Ground Speed (kts)	70	90	120	150	180	210	-	-
Min : Sec	5:18	4:08	3:06	2:29	2:04	1:46	-	-
3° (5%) Desc. (ft/min)	370	480	630	790	950	1110	-	-

**INSTRUMENT  
APPROACH  
CHART - ICAO**

**AD ELEV 11ft**  
HEIGHTS RELATED TO  
THR RWY 04 - ELEV 10ft

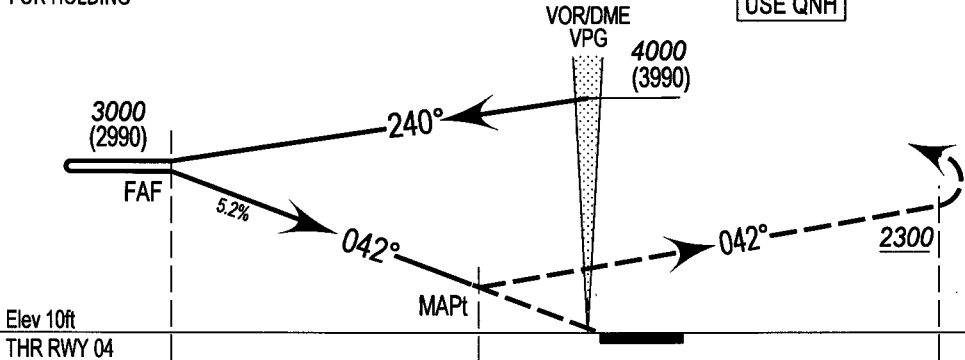
TWR - 121.1  
SMC - 121.6  
ATIS - 126.4

**PENANG/PENANG  
VOR/DME  
RWY 04**



BASED ON 210 Kts (STILL AIR)  
FOR HOLDING

TRANSITION LEVEL: FL 130  
TRANSITION ALT : 11000ft



Elev 10ft  
THR RWY 04  
NM FM VOR/DME 9 5 2.3 0 5 7.5

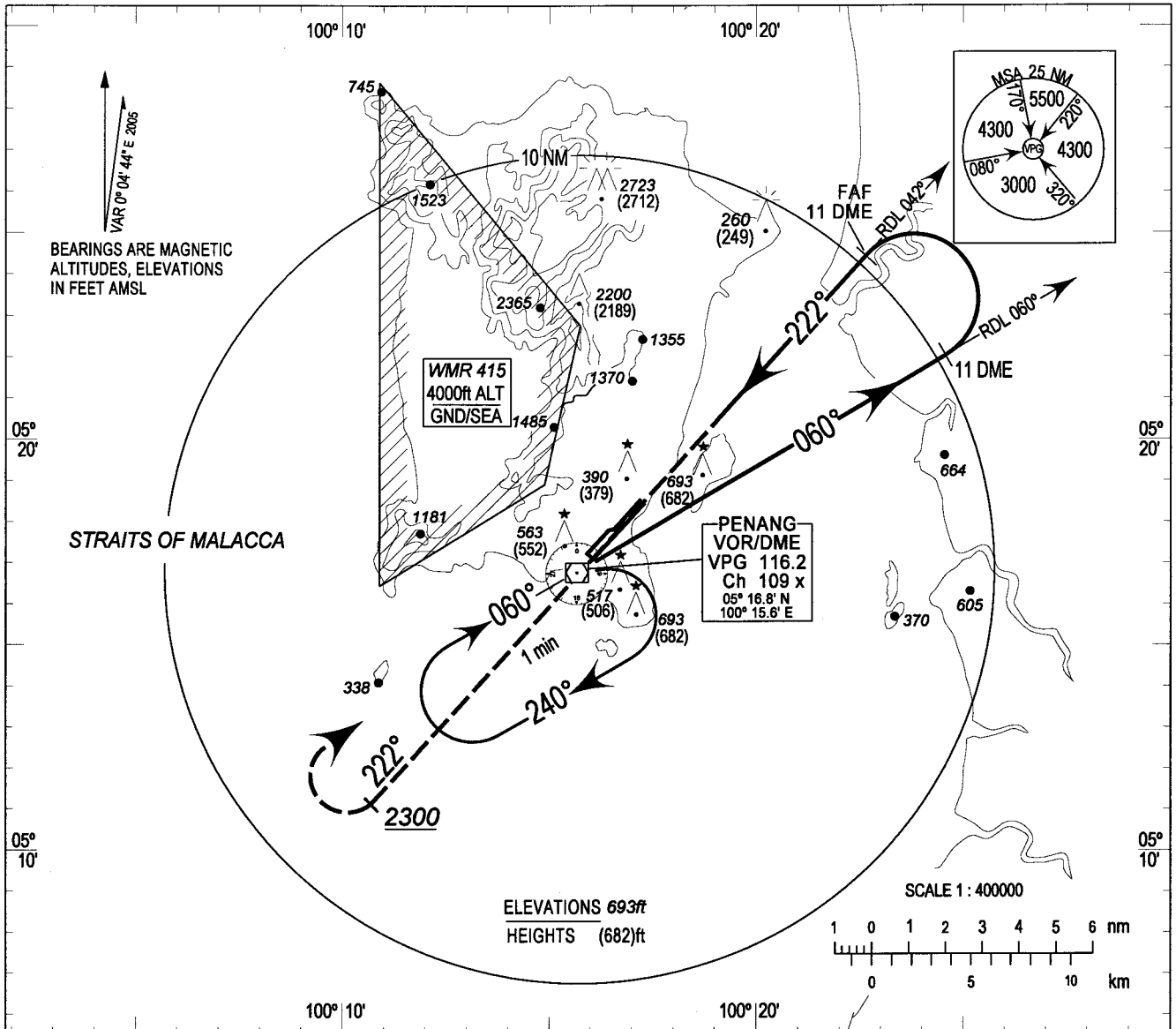
Category of Aircraft	OCA/H/ 2.3DME						
	A	B	C	D			
Straight - in - Approach	950(940)						
Circling	NOT AUTHORISED						
Distance (DME)	8	7	6	5	4	3	2.3
3° App Path	2770	2450	2130	1810	1500	1180	950
Speed (kts)	70	100	130	160	190	-	-
Rate of descent (ft/mins)	369	527	685	843	1000	-	-

**INSTRUMENT  
APPROACH  
CHART - ICAO**

**AD ELEV 11ft**  
HEIGHTS RELATED TO  
THR RWY 22 - ELEV 11ft

TWR - 121.1  
SMC - 121.6  
ATIS - 126.4

**PENANG/PENANG  
VOR/DME  
RWY 22**

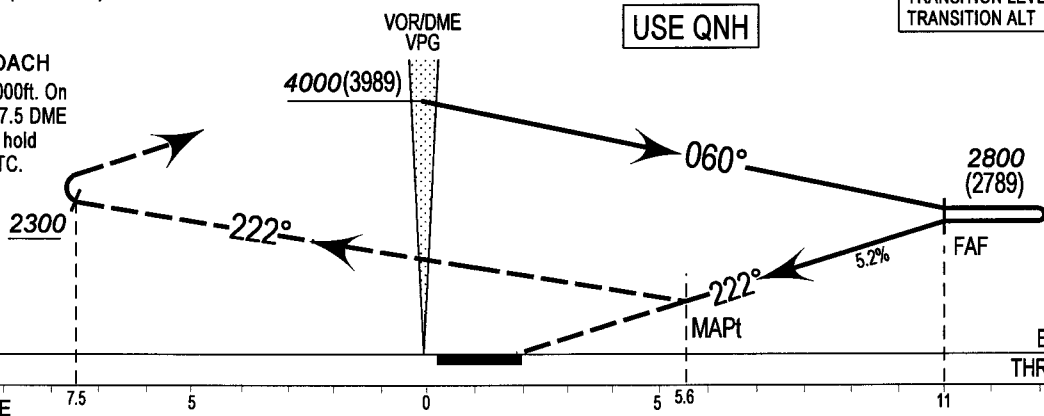


BASED ON 210 Kts (STILL AIR)  
FOR HOLDING

TRANSITION LEVEL: FL 130  
TRANSITION ALT : 11000ft

USE QNH

**MISSED APPROACH**  
Climb on 222° to 4000ft. On  
passing 2300FT or 7.5 DME  
turn RIGHT to VPG hold  
or as directed by ATC.



Category of Aircraft	OCA/H / 5.6 DME						
	A	B	C	D			
Straight - in - Approach	1070 (1059)						
Circling	NOT AUTHORISED						
Distance (DME)	10	9	8	7	6	5.6	-
3° App Path	2490	2170	1850	1530	1210	1070	-
Ground Speed (KTS)	70	100	130	160	190	-	-
Rate of descent (ft/mins) / GS	369	527	685	843	1000	-	-

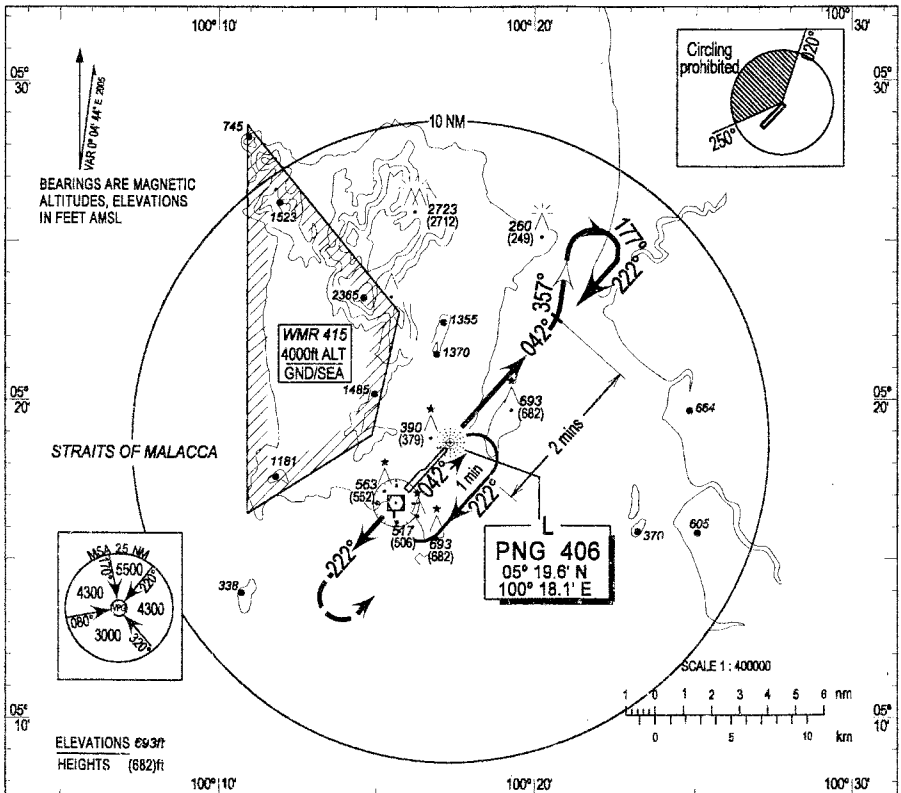


**INSTRUMENT  
APPROACH  
CHART - ICAO**

AD ELEV 11ft  
HEIGHTS RELATED TO  
THR RWY 22 - ELEV 11ft

TWR - 121.1  
SMC - 121.6  
ATIS - 126.4

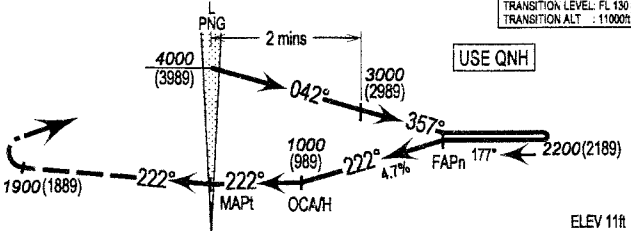
**PENANG/PENANG  
LOCATOR  
RWY 22 (CAT A & B)**



BASED ON TAS 140 KTS (STILL AIR)  
CAT A & B ACFT ONLY

TRANSITION LEVEL: FL 130  
TRANSITION ALT : 11000ft

**MISSED APPROACH**  
Climb on 222° to 1900(1889)  
or above, turn left and return  
to holding pattern or as  
directed by ATC.



ELEV 11ft  
THR RWY 22

NM FROM LOCATOR

Category of Aircraft	OCA (OCH)			
	A	B	C	D
Straight-in - Approach	1000(989)	-	-	-
Circling	1000(989)	-	-	-
Caution:	Circling prohibited in sector 250° - 020° from Thr Rwy 22			

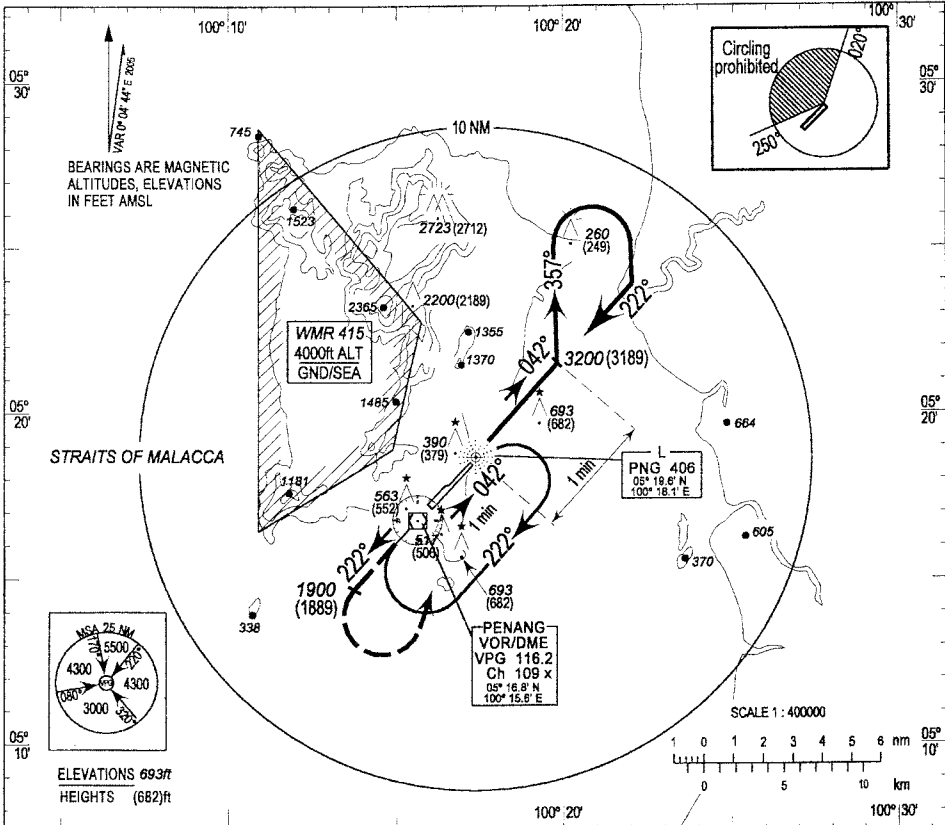
	Time to Threshold Rwy 04 from FAPn distance 7.6 nautical miles			
	70	90	120	150
Ground Speed (knots)	70	90	120	150
Mins : Secs	6:29	5:00	3:48	3:20
4.7% descent (ft/mins)	340	440	580	725

**INSTRUMENT  
APPROACH  
CHART - ICAO**

AD ELEV 11ft  
HEIGHTS RELATED TO  
THR RWY 22 - ELEV 11R

TWR - 121.1  
SMC - 121.6  
ATIS - 126.4

**PENANG/PENANG  
LOCATOR  
RWY 22 (CAT C & D)**

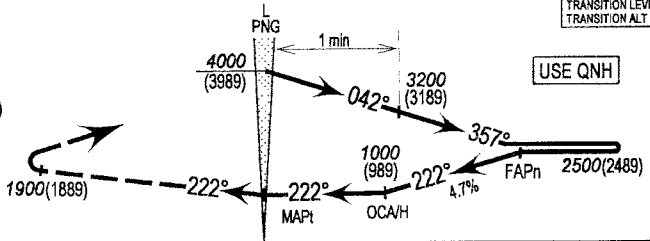


BASED ON TAS 225 KTS (STILL AIR)  
CAT C & D ACFT ONLY

TRANSITION LEVEL: FL 130  
TRANSITION ALT : 11000ft

**MISSED APPROACH**

Climb on 222° to 1900(1889)  
or above, turn left and return  
to holding pattern or as  
directed by ATC.



Elev 11ft

THR RWY 22

NM FROM LOCATOR

5 0 5 10

Category of Aircraft	OCA(OCH)			
	A	B	C	D
Straight - in - Approach	-	-	1000(989)	1100(1089)
Circling	-	-	1100(1089)	
Caution:	Circling prohibited in sector 250° - 020° from Thr Rwy 22			

Time to Threshold Runway 22 from FAPn distance 8.6 nautical miles						
Ground Speed (knots)	70	90	120	150	180	210
Minutes: Seconds	-	-	4:18	3:26	2:52	2:27
4.7% descent (ft/min)	-	-	580	730	870	1020