

20-JUL-2017

**PEN-WMKP****1-10****AOI****AOI****GENERAL****Operational Hours****ATS Hours / AD Operator Hours:** H24**Airport Information****RFF:** CAT 9**PCN:** RWY 04/22: 93/F/A/W/T**Operation****TWY Restriction**

B748 OPS ACFT restricted:

ARR: Taxi via TWY A, E, F, A04, A22 and stands A9R or A8.

DEP: Taxi via TWY E or F to RWY HLDG point.

TWY C not AVBL for wide-body ACFT after LDG RWY 04 due acute turn into TWY A.

**Parking**

Visual Docking Guidance System APIS AVBL at stands A6L-B7.

**ARRIVAL****Arrival Procedure****VFR Traffic Pattern:** RWY 04 right-hand circuit, ALT 1500ft within 7NM of AD.

Circling prohibited in sector 250°-020° due high terrain.

**DEPARTURE****| Take-off Minima**

RWY		04/22	
All ACFT	ft - m/km	0 - 400R/400V	HJ only
		0 - 800R/800V	HN

**Communication****COM Failure**

Maintain assigned HDG - climb to MSA or at least last assigned LVL (if higher).

Maintain MSA or assigned LVL as appropriate for 2min, then climb to flight plan LVL and intercept flight plan track (as amended) by ATC if applicable.

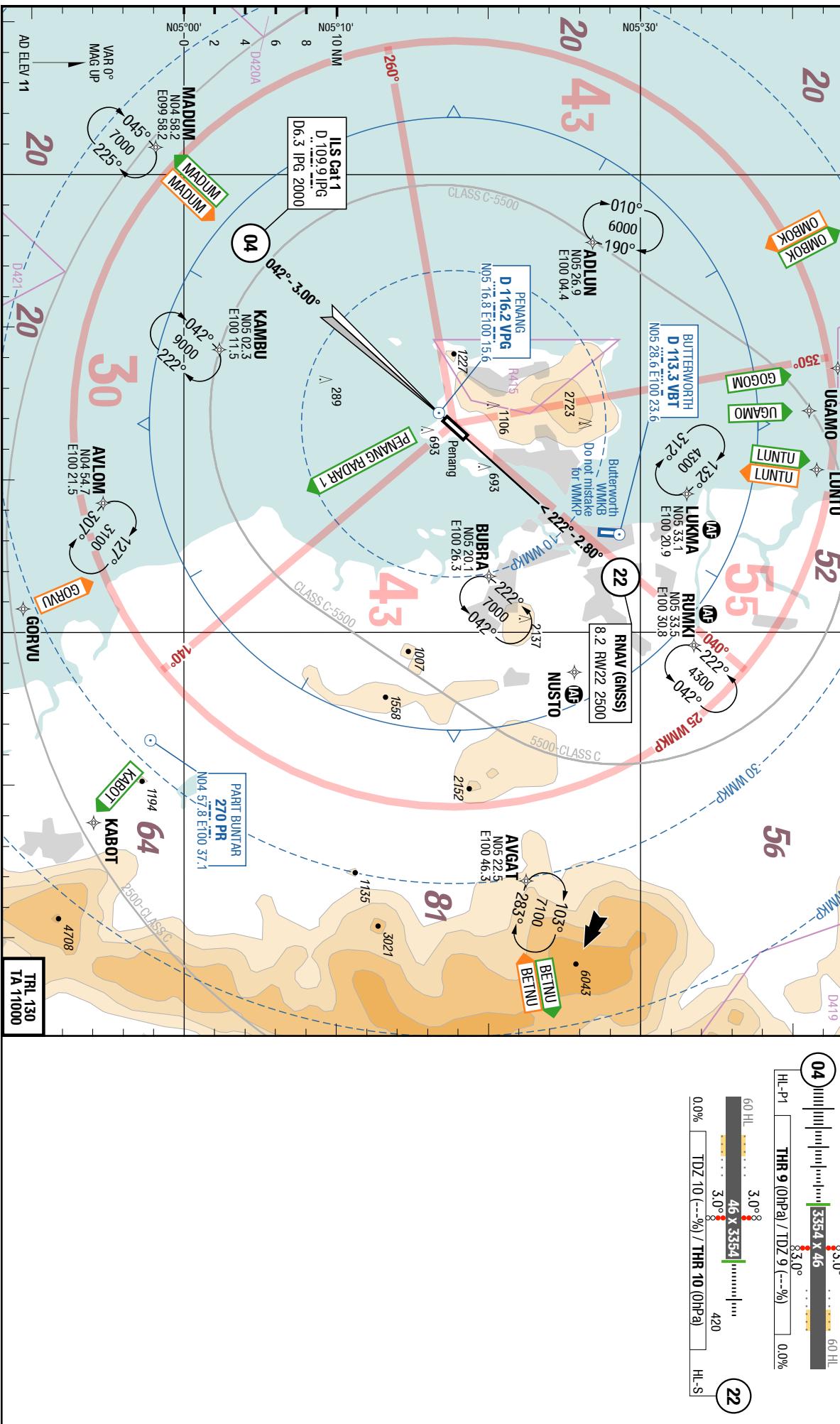
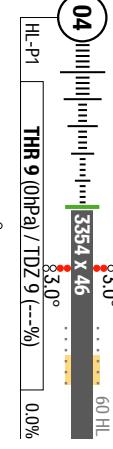
**Departure Procedure****Start-up/Push-back**

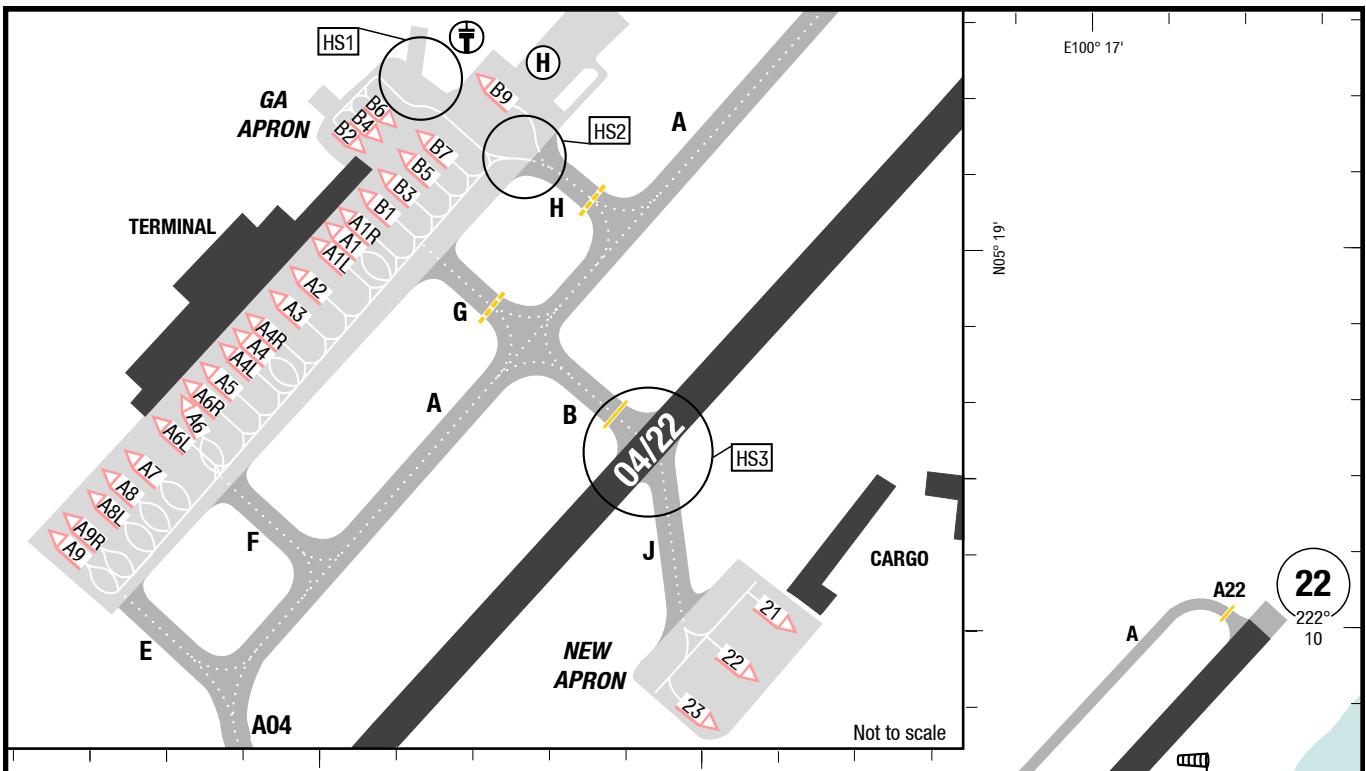
REQ ATC CLR prior start-up.

After receipt of ATC CLR, request start-up/push-back within 5min.

6043	ATIS 126.400	125.800
4500 ▲	Butterworth APP	
3000 ▲	TWR 121.100	
2000 ▲	GND 121.600	
1000 ▲		

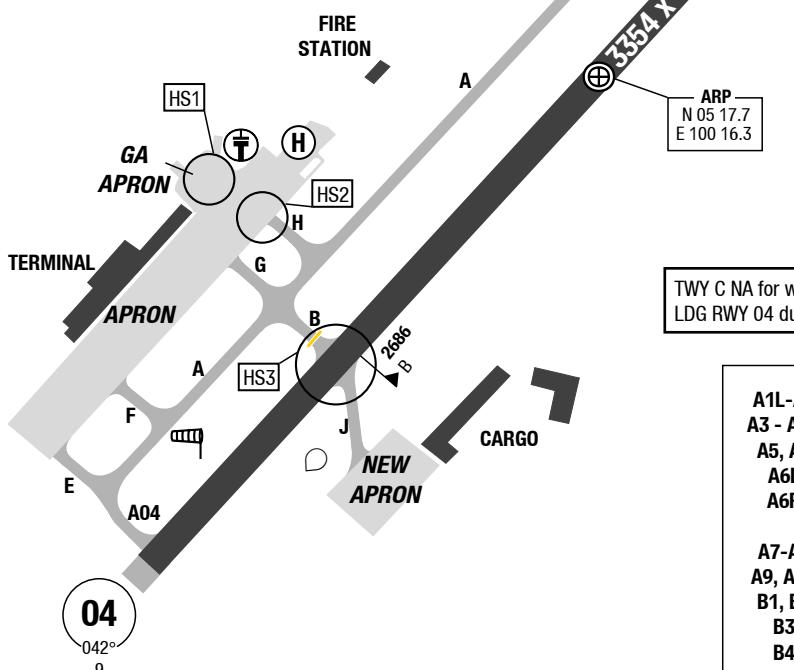
## Landing RWY system:





ATIS	126.400
TWR	121.100
GND	121.600

HS1: Caution, vehicle crossing apron TWY  
HS2: Caution, multiple ACFT crossing  
HS3: ACFT crossing RWY to TWY J must hold short at TWY B



TWY C NA for wide-body ACFT after  
LDG RWY 04 due to acute turn into TWY A.

COORDINATES	
A1L-A2	N05 17.6 E100 16.0
A3 - A4R	N05 17.5 E100 16.0
A5, A6	N05 17.5 E100 15.9
A6L	N05 17.4 E100 15.9
A6R	N05 17.5 E100 15.9
A7-A8	N05 17.4 E100 15.9
A9, A9R	N05 17.4 E100 15.8
B1, B2	N05 17.6 E100 16.0
B3	N05 17.6 E100 16.1
B4	N05 17.7 E100 16.1
B5	N05 17.6 E100 16.1
B6, B7, B9	N05 17.7 E100 16.1
21-23	N05 17.2 E100 16.3

VAR 0°  
MAG UP

AD ELEV 11

m 0 500 1000 1500 2000 2500 3000

ft 0 1000 1500 2000 2500 3000

PENANG  
D 116.2 VPG

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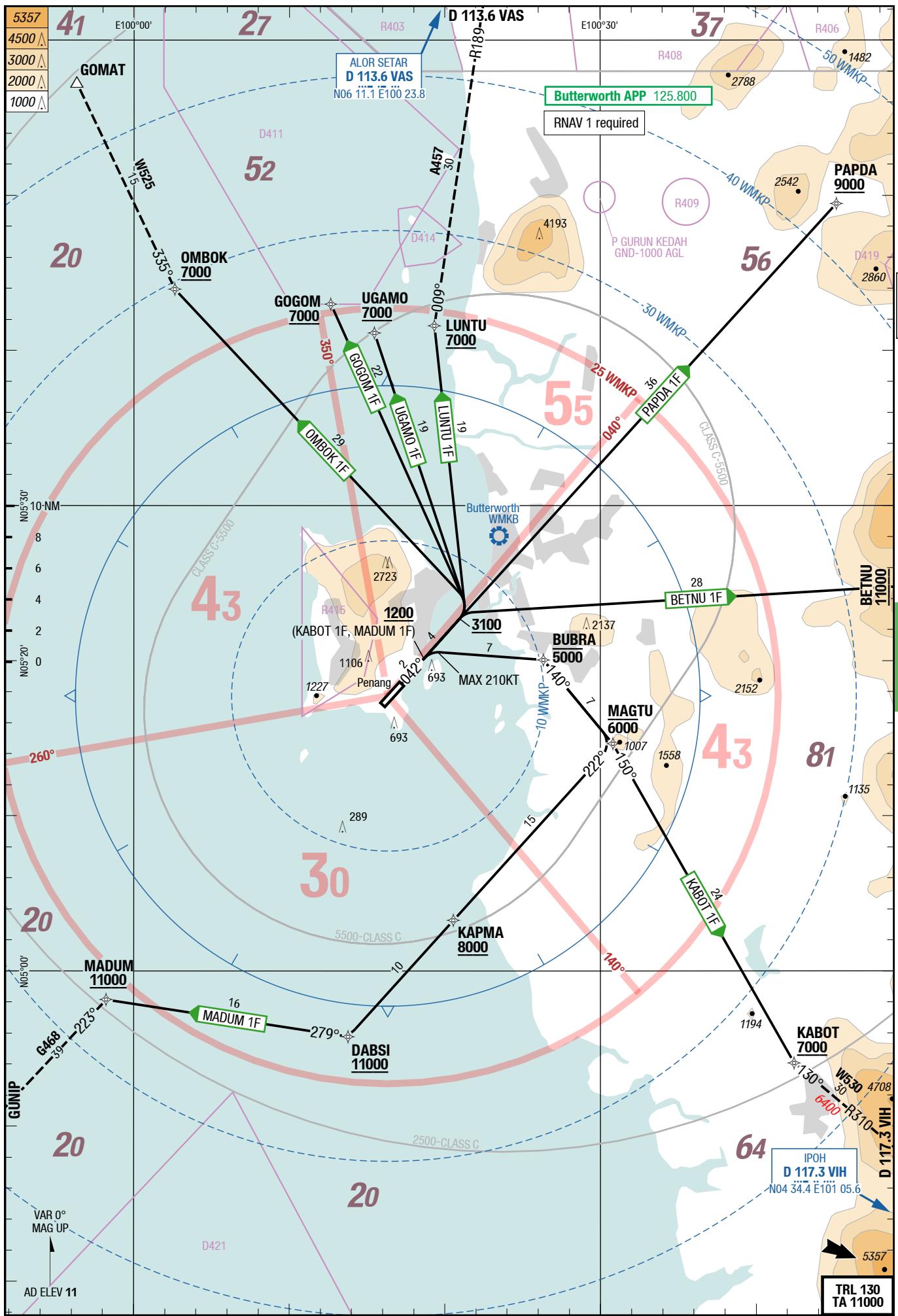
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**RNAV SIDs RWY 04**

**SID**  
**SID**

**Penang Intl Penang Malaysia**

**RNAV SIDs RWY 04**



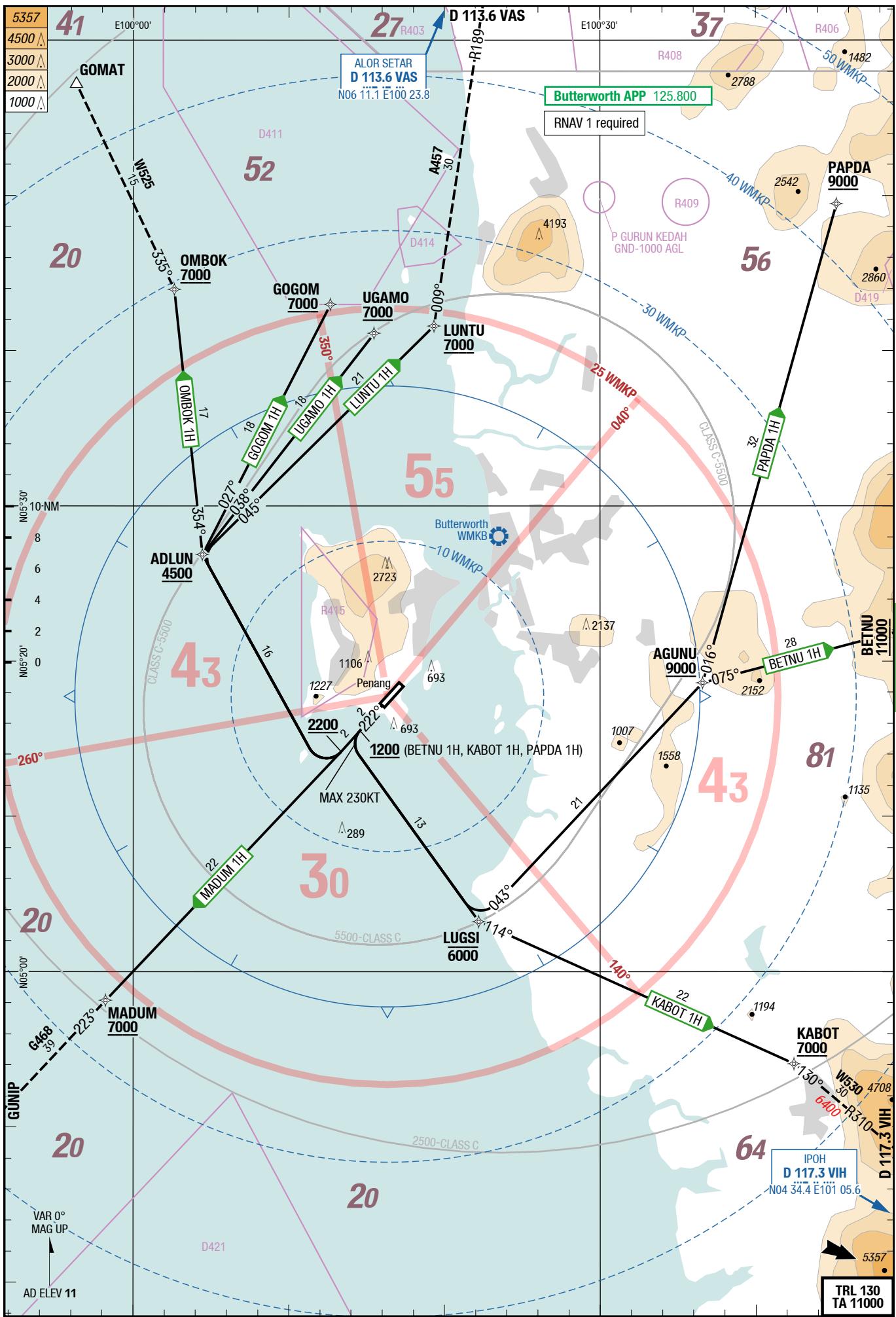
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**RNAV SIDs RWY 22**

SID

**RNAV SIDs RWY 22**  
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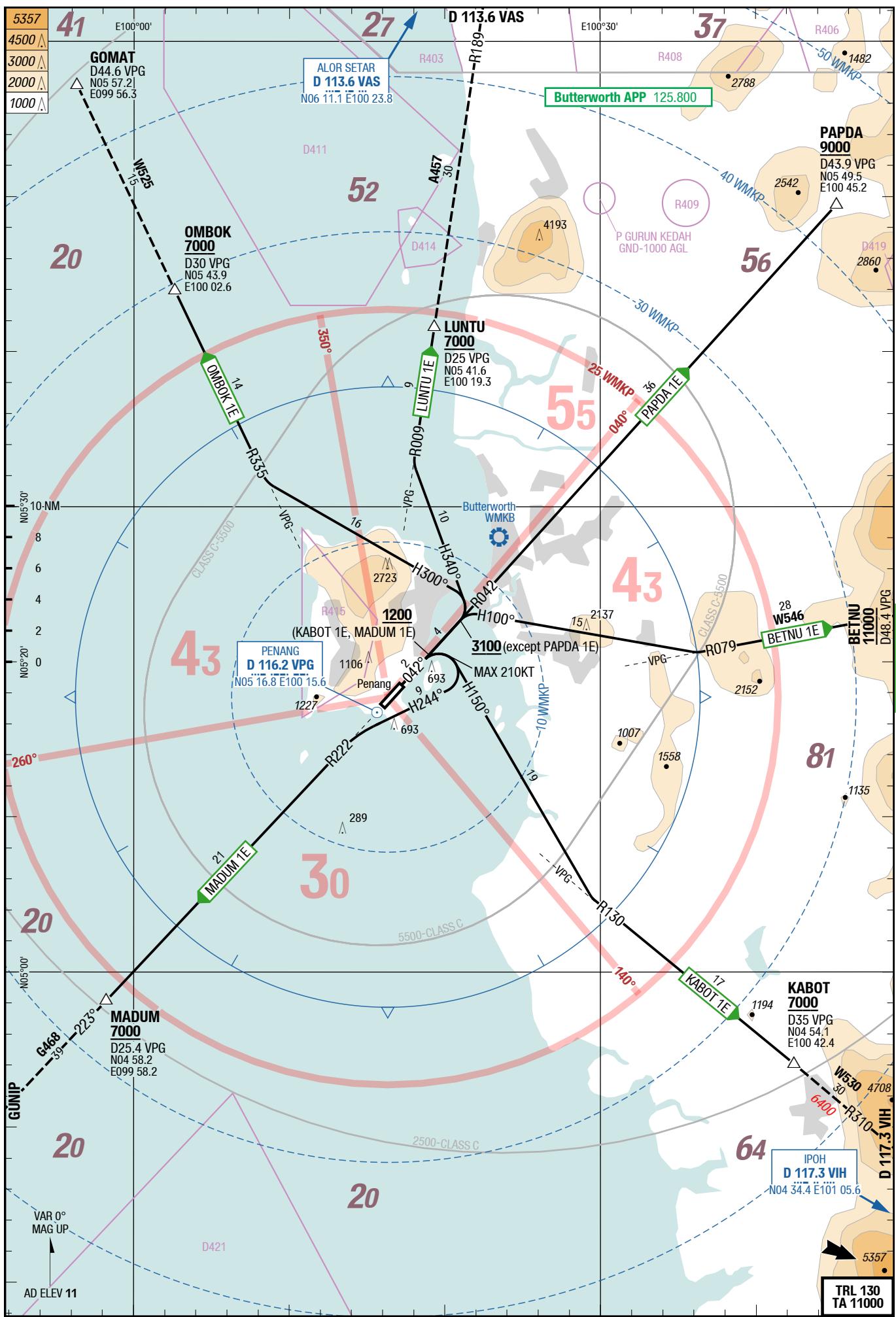
19-APR-2018

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**4-30**  
**Malaysia Penang Int'l**  
**SIDS RWY 04**  
**SIDS RWY 22**

SID

**SIDs RWY 04**



19-APR-2018

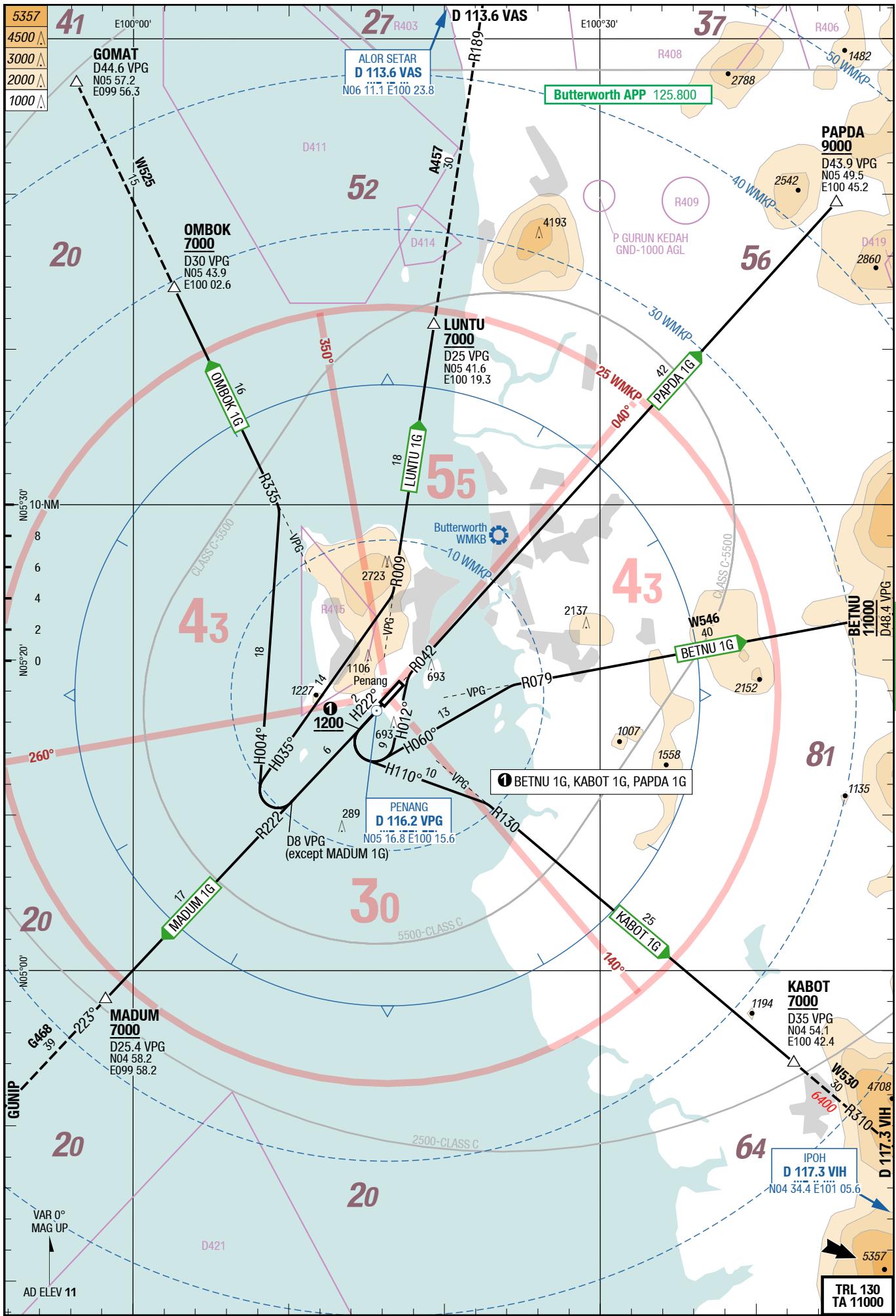
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SIDS RWY 22

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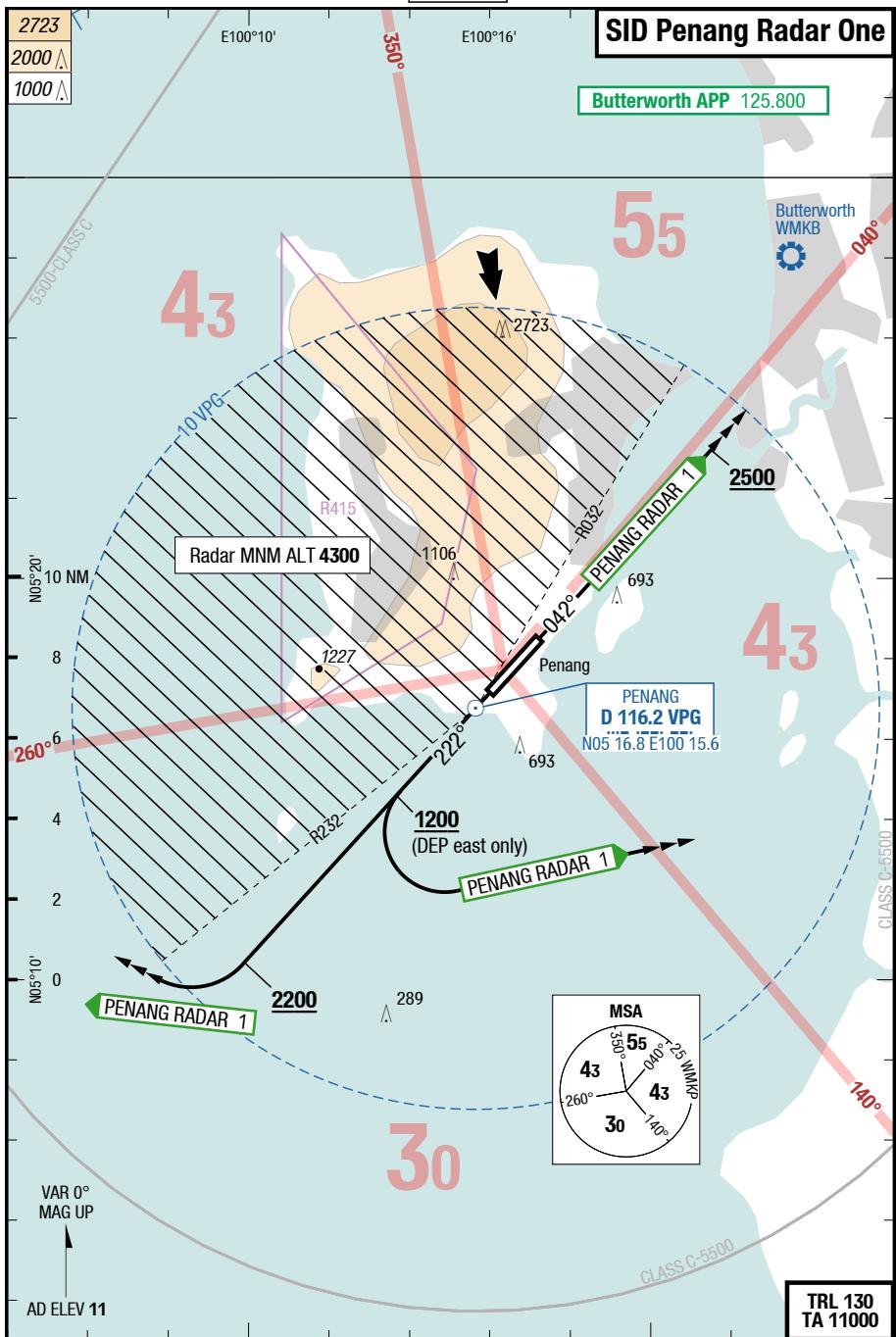
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**SID Penang Radar One**

SID



## Changes: AD ELEV

13-JUL-2017

**PEN-WMKP**

5-10

**RNAV SIDs RWY 04****BETNU 1F / GOGOM 1F / KABOT 1F / LUNTU 1F / MADUM 1F / OMBOK 1F**

RWY 04 (042°)

	GS	120	150	180	210	240	270
5.0%	ft/MIN	700	800	1000	1100	1300	1400

DESIGNATOR	ROUTING	ALTITUDES
	<b>Runway 04</b>	
<b>BETNU 1F</b> 5.0% <b>125.800</b> ①	[A3100+] - BETNU	BETNU MNM <b>11000</b>
<b>GOGOM 1F</b> 5.0% to 5000 <b>125.800</b> ②	[A3100+] - GOGOM	GOGOM MNM <b>7000</b>
<b>KABOT 1F</b> 5.0% to 5000 <b>125.800</b> ③	[A1200+ ;K210- ;R] - BUBRA - MAGTU - KABOT	BUBRA MAX <b>5000</b> MAGTU MAX <b>6000</b> KABOT MNM <b>7000</b>
<b>LUNTU 1F</b> 5.0% to 5000 <b>125.800</b> ④	[A3100+ ;L] - LUNTU	LUNTU MNM <b>7000</b>
<b>MADUM 1F</b> 5.0% to 5000 <b>125.800</b> ⑤	[A1200+ ;K210- ;R] - BUBRA - MAGTU - KAPMA - DABSI - MADUM	BUBRA MAX <b>5000</b> MAGTU MAX <b>6000</b> KAPMA MNM <b>8000</b> DABSI MNM <b>11000</b> MADUM MNM <b>11000</b>
<b>OMBOK 1F</b> 5.0% to 5000 <b>125.800</b> ⑥	[A3100+ ;L] - OMBOK	OMBOK MNM <b>7000</b>

① after BETNU join AWY W546.

② after GOGOM join AWY Y351 northbound.

③ after KABOT join AWY W530 southbound.

④ after LUNTU join AWY A457 northbound.

⑤ after MADUM join AWY G468.

⑥ after OMBOK join AWY W525 northbound.

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**PEN-WMKP****5-20****RNAV SIDs RWY 04****PAPDA 1F / UGAMO 1F**

RWY 04 (042°)

	GS	120	150	180	210	240	270
5.0%	ft/MIN	700	800	1000	1100	1300	1400

DESIGNATOR	ROUTING	ALTITUDES
	<b>Runway 04</b>	
<b>PAPDA 1F</b> 5.0% to 5000 <b>125.800</b> ①	[A3100+] - PAPDA	PAPDA MNM <b>9000</b>
<b>UGAMO 1F</b> 5.0% to 5000 <b>125.800</b> ②	[A3100+] - UGAMO	UGAMO MNM <b>7000</b>

① after PAPDA join AWY W650.

② after UGAMO join AWY Y350 northbound.

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**RNAV SIDs RWY 22**

SIDPT

**BETNU 1H / GOGOM 1H / KABOT 1H / LUNTU 1H / MADUM 1H / OMBOK 1H / PAPDA 1H / UGAMO 1H**

**RWY 22 (222°)**

DESIGNATOR	ROUTING	ALTITUDES
<b>Runway 22</b>		
<b>BETNU 1H 125.800 ①</b>	[A1200+ ;K230- ;L] - LUGSI - AGUNU - BETNU	LUGSI MAX <b>6000</b> AGUNU MNM <b>9000</b> BETNU MNM <b>11000</b>
<b>GOGOM 1H 125.800 ②</b>	[A2200+ ;R] - ADLUN - GOGOM	ADLUN MNM <b>4500</b> GOGOM MNM <b>7000</b>
<b>KABOT 1H 125.800 ③</b>	[A1200+ ;K230- ;L] - LUGSI - KABOT	LUGSI MAX <b>6000</b> KABOT MNM <b>7000</b>
<b>LUNTU 1H 125.800 ④</b>	[A2200+ ;R] - ADLUN - LUNTU	ADLUN MNM <b>4500</b> LUNTU MNM <b>7000</b>
<b>MADUM 1H 125.800 ⑤</b>	[A2200+] - MADUM	MADUM MNM <b>7000</b>
<b>OMBOK 1H 125.800 ⑥</b>	[A2200+ ;R] - ADLUN - OMBOK	ADLUN MNM <b>4500</b> OMBOK MNM <b>7000</b>
<b>PAPDA 1H 125.800 ⑦</b>	[A1200+ ;K230- ;L] - LUGSI - AGUNU - PAPDA	LUGSI MAX <b>6000</b> AGUNU MNM <b>9000</b> PAPDA MNM <b>9000</b>
<b>UGAMO 1H 125.800 ⑧</b>	[A2200+ ;R] - ADLUN - UGAMO	ADLUN MNM <b>4500</b> UGAMO MNM <b>7000</b>

- ① after BETNU join AWY W546.
- ② after GOGOM join AWY Y351 northbound.
- ③ after KABOT join AWY W530 southbound.
- ④ after LUNTU join AWY A457 northbound.
- ⑤ after MADUM join AWY G468.
- ⑥ after OMBOK join AWY W525 northbound.
- ⑦ after PAPDA join AWY W650 northbound.
- ⑧ after UGAMO join AWY Y350 northbound.

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**PEN-WMKP****5-40****SIDs RWY 04**

SIDPT

**BETNU 1E / KABOT 1E / LUNTU 1E / MADUM 1E / OMBOK 1E / PAPDA 1E**

RWY 04 (042°)

	GS	120	150	180	210	240	270
	5.0%	ft/MIN	700	800	1000	1100	1300

DESIGNATOR	ROUTING	ALTITUDES
	<b>Runway 04</b>	
<b>BETNU 1E</b> 5.0% to 7000 <b>125.800</b> ①	042° - at MNM <b>3100 RT</b> HDG 100° - intercept R079 <b>VPG</b> to BETNU - join AWY W546	BETNU MNM <b>11000</b>
<b>KABOT 1E</b> 5.0% <b>125.800</b>	042° - at MNM <b>1200 RT</b> (MAX 210KT) HDG 150° - intercept R130 <b>VPG</b> to KABOT - join AWY W530	KABOT MNM <b>7000</b>
<b>LUNTU 1E</b> 5.0% to 5000 <b>125.800</b> ①	042° - at MNM <b>3100 LT</b> HDG 340° - intercept R009 <b>VPG</b> to LUNTU - join AWY A457	LUNTU MNM <b>7000</b>
<b>MADUM 1E</b> 5.0% <b>125.800</b>	042° - at MNM <b>1200 RT</b> (MAX 210KT) HDG 244° - intercept R222 <b>VPG</b> to MADUM - join AWY G468	MADUM MNM <b>7000</b>
<b>OMBOK 1E</b> 5.0% to 5000 <b>125.800</b> ①	042° - at MNM <b>3100 LT</b> HDG 300° - intercept R335 <b>VPG</b> to OMBOK - join AWY W525	OMBOK MNM <b>7000</b>
<b>PAPDA 1E</b> 5.0% to 3000 <b>125.800</b> ①	042° - intercept R042 <b>VPG</b> to PAPDA - join AWY W650	PAPDA MNM <b>9000</b>

① Climb gradient due to airspace structure and obstacle.

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**PEN-WMKP****5-50****SIDs RWY 22**

SIDPT

**BETNU 1G / KABOT 1G / LUNTU 1G / MADUM 1G / OMBOK 1G / PAPDA 1G**

RWY 22 (222°)

	GS	120	150	180	210	240	270
5.0%	ft/MIN	700	800	1000	1100	1300	1400

DESIGNATOR	ROUTING	ALTITUDES
	<b>Runway 22</b>	
<b>BETNU 1G 125.800 ①</b>	222° - at MNM <b>1200 LT</b> HDG 060° - intercept R079 <b>VPG</b> to BETNU - join AWY W546	BETNU MNM <b>11000</b>
<b>KABOT 1G 125.800</b>	222° - at MNM <b>1200 LT</b> HDG 110° - intercept R130 <b>VPG</b> to KABOT - join AWY W530	KABOT MNM <b>7000</b>
<b>LUNTU 1G 5.0% to 5000 125.800 ①</b>	222° - at D8 <b>VPG RT</b> HDG 035° - intercept R009 <b>VPG</b> to LUNTU - join AWY A457	LUNTU MNM <b>7000</b>
<b>MADUM 1G 125.800</b>	222° - intercept R222 <b>VPG</b> to MADUM - join AWY G468	MADUM MNM <b>7000</b>
<b>OMBOK 1G 5.0% to 5000 125.800 ①</b>	222° - at D8 <b>VPG RT</b> HDG 004° - intercept R335 <b>VPG</b> to OMBOK - join AWY W525	OMBOK MNM <b>7000</b>
<b>PAPDA 1G 125.800</b>	222° - at MNM <b>1200 LT</b> HDG 012° - intercept R042 <b>VPG</b> to PAPDA - join AWY A650	PAPDA MNM <b>9000</b>

① Climb gradient due to airspace R415 and obstacle.

13-JUL-2017

**PEN-WMKP****5-60****SID Penang Radar One****PENANG RADAR 1**

RWYs 04 (042°) / 22 (222°)

**After take-off, contact Butterworth APP.**

	GS	120	150	180	210	240	270
5.0%	ft/MIN	700	800	1000	1100	1300	1400

DESIGNATOR	ROUTING	ALTITUDES
	<b>Runway 04</b>	
<b>PENANG RADAR 1</b> 5.0% <b>125.800</b> ①	042° - at MNM <b>2500</b> turn to assigned HDG	
	<b>Runway 22</b>	
<b>PENANG RADAR 1</b> 5.0% <b>125.800</b> ①	<b>DEP east</b> 222° - at MNM <b>1200</b> turn to assigned HDG  <b>DEP west</b> 222° - at MNM <b>2200</b> turn to assigned HDG	

① HDG will be assigned by ATC before DEP.

19-APR-2018

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**RNAV STARs RWY 22**

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**RNAV STARs RWY 22**

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# **RNAV STARs RWY 04**

This figure is an aeronautical chart showing flight levels (contours) and various flight routes across the South China Sea and parts of Southeast Asia. Key features include:

- Flight Levels:** Contours range from 1000 to 9000 feet MSL, with labels like 1000, 2000, 3000, 4000, 5000, 6000, 7000, 8000, and 9000.
- Waypoints:** Labeled waypoints include PAPDA 9000, AVGAT 8000, BETNU 11000, GORVU 7000, ALOR SETAR D 113.6 VAS, and KUALA LUMPUR FIR WMFC.
- Routes:** Routes are indicated by colored lines (e.g., red, orange, green) connecting waypoints. One route is labeled "PAPDA 2J 3900".
- Navigation Labels:** Labels like "P GURUN KEDAH GND-1000 AGL" and "R409" are present near the top left.
- ATIS Information:** A box in the top right corner provides ATIS details for Butterworth APP, including coordinates (126.400, 125.800), GNSS required, and RNAV 1 required.
- Other Labels:** Labels such as "BANGKOK FIR VTBB", "KUALA LUMPUR FIR WMFC", "BUBRA 7000", "GORVU 2J", "TEPUS", and "AVGAT 8000" are scattered across the map.

## Changes: SUAs, AD ELEV

19-APR-2018

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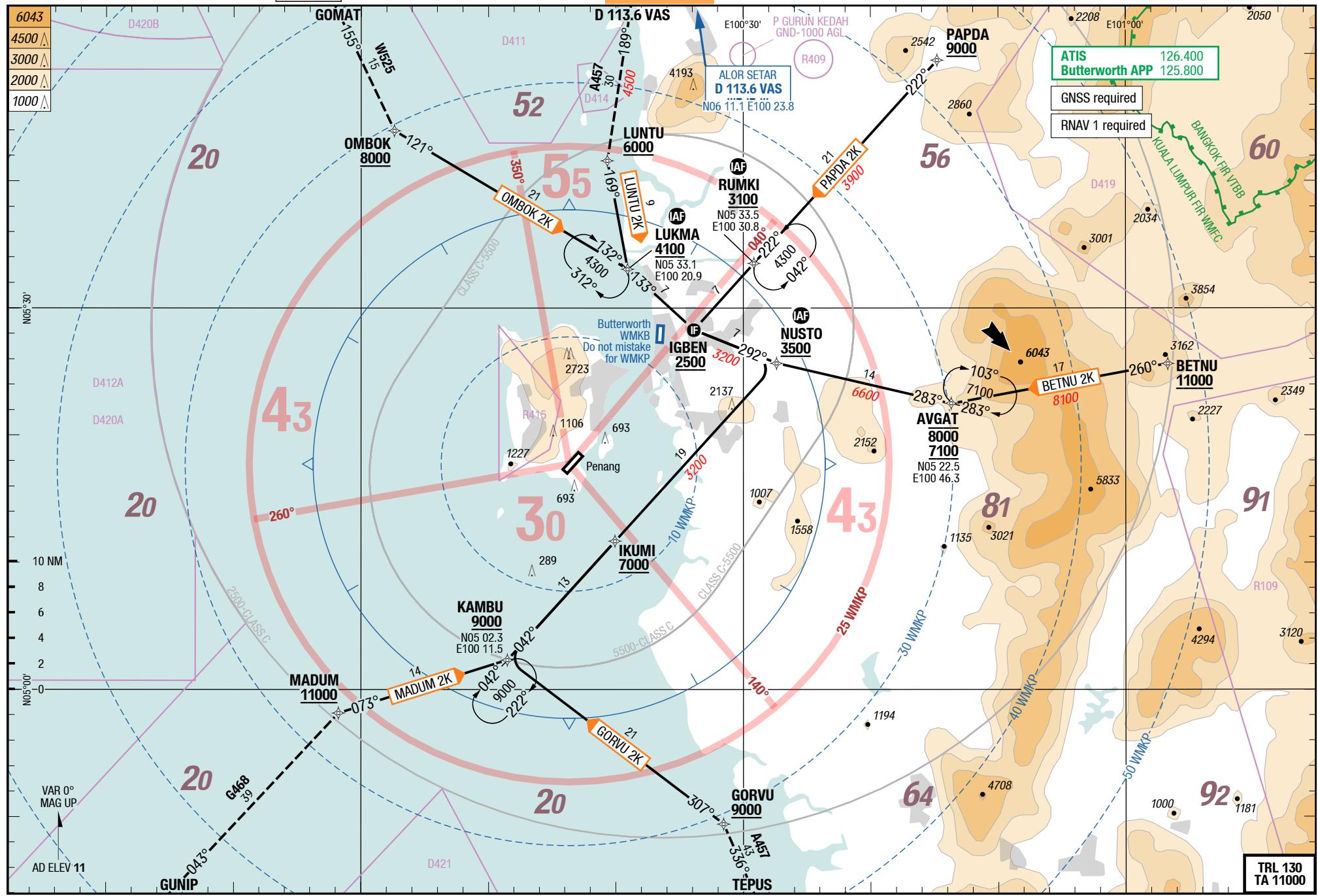
6-20

## RNAV STARs RWY 22

SIAR

STAR

RNAV STARs RWY 22



## Changes: SUAs, AD ELEV

**Effective 26-APR-2018**

19-APR-2018

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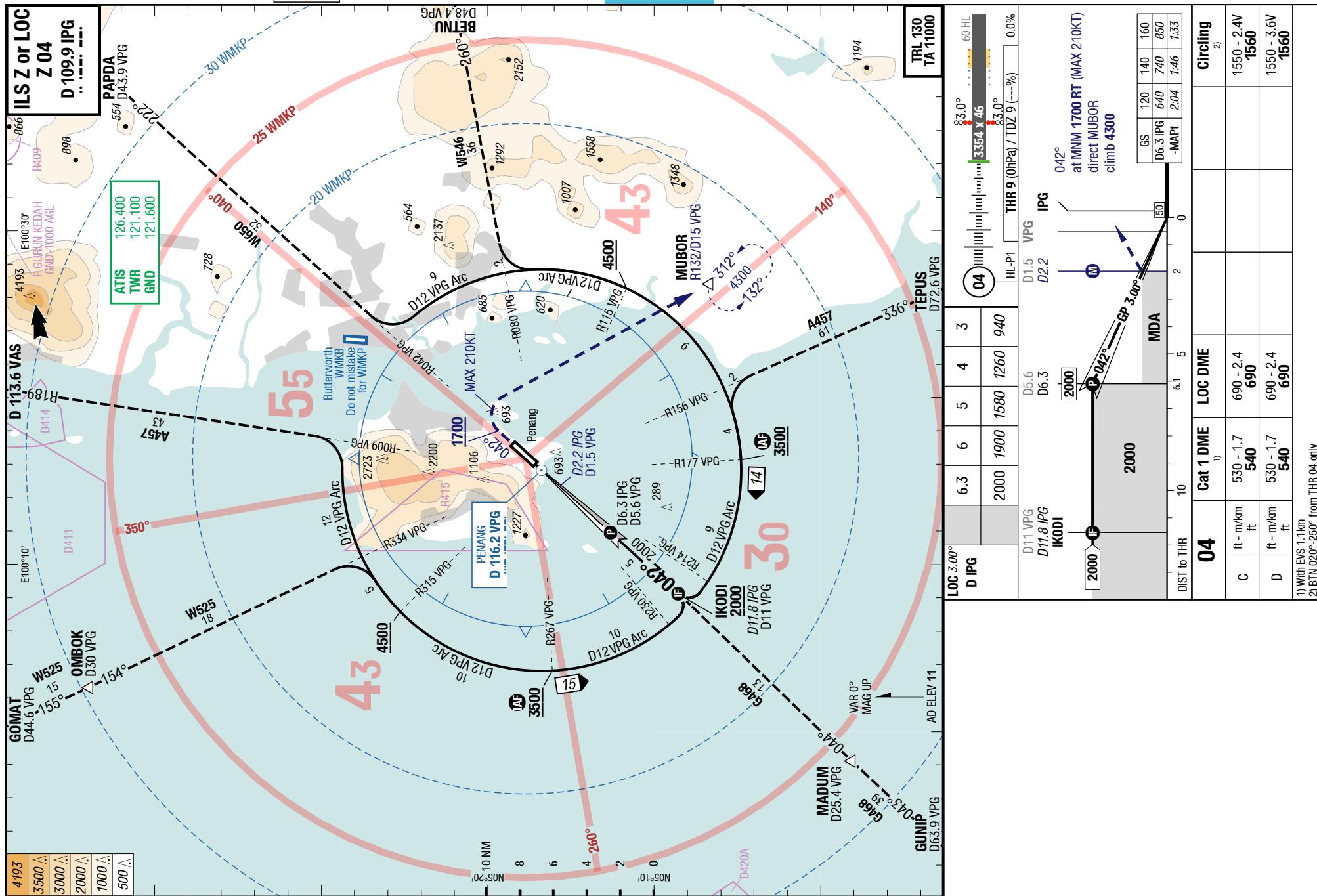
Penang Intl **Penang** Malaysia

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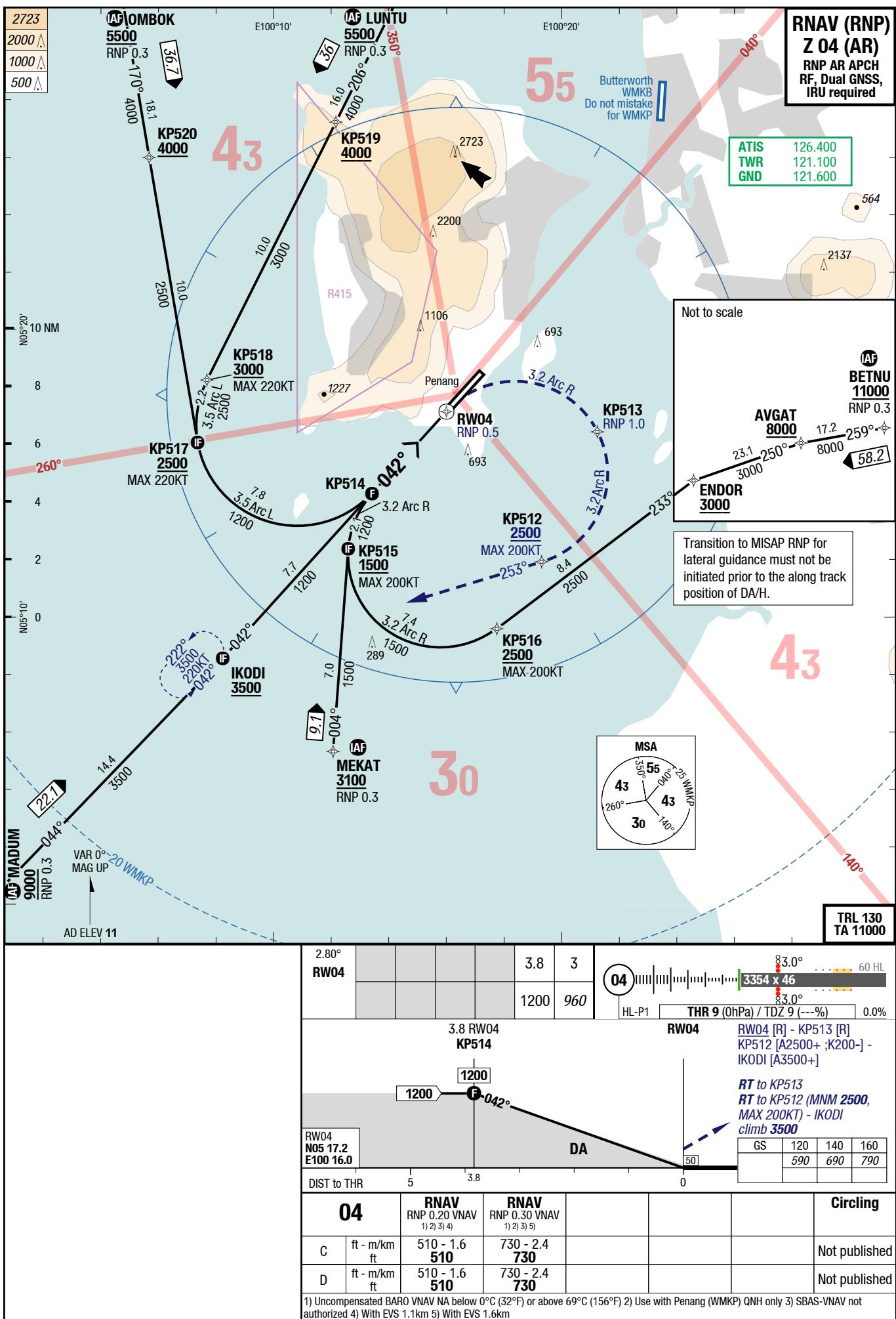
7-10

**ILS Z or LOC Z 04**

**ILS Z or LOC Z 04**



Changes: PROC renamed, APL, SUAs, OBST, AD ELEV



**RNAV (RNP)  
Z 22 (AR)**  
RNP AR APCH  
RF, Dual GNSS,  
IRU required

**7-40**  
**RNAV (RNP) Z 22**  
Not to scale

**TRL 130 TA 11000**  
2.8° RW22

Changes: WPT, PROC, Track, APL, AD ELEV, Editorial

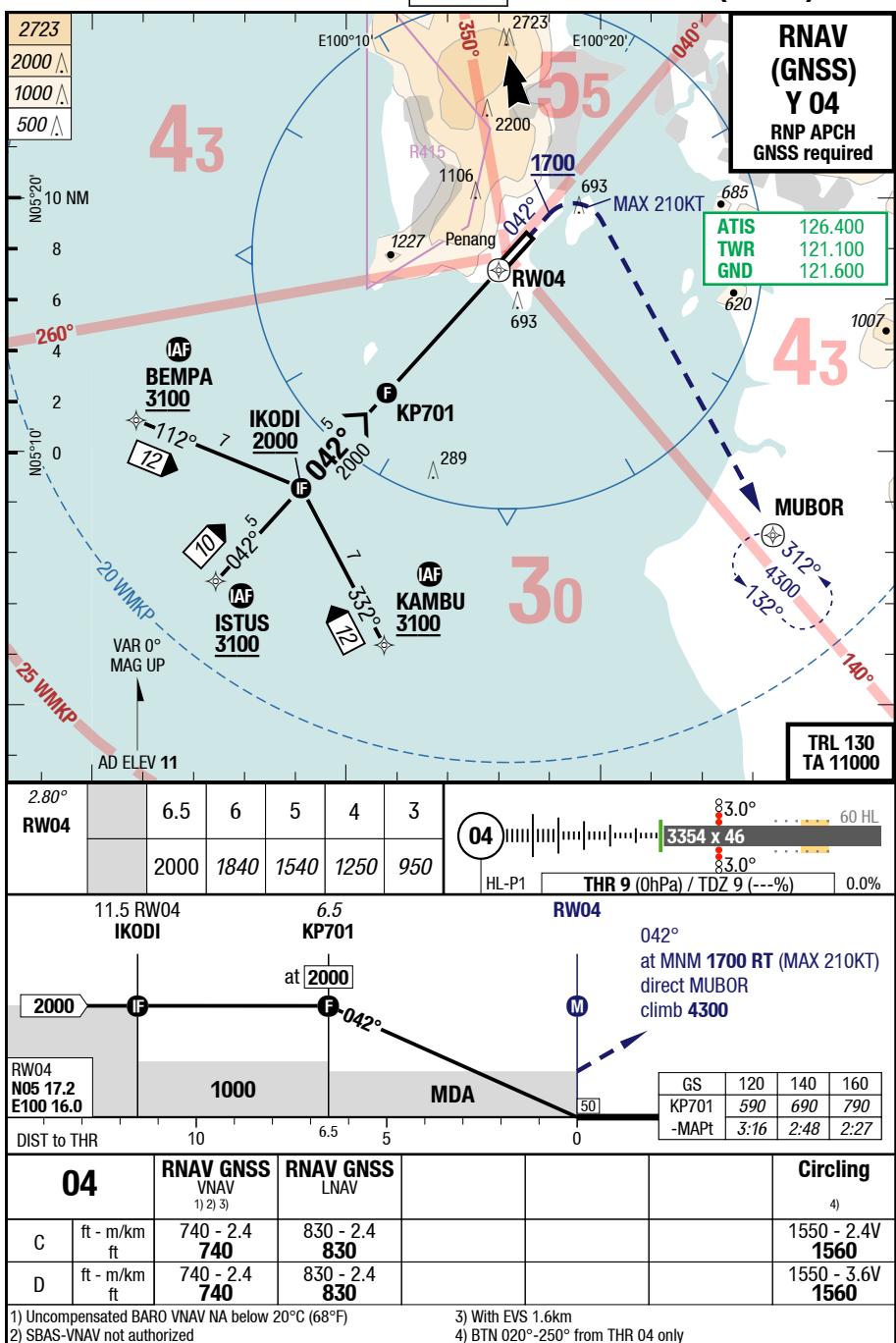


		60 HL	3.0° 8	46 x 3354	420	22	2	3	3.8		3.8 RW22	KP413
		0.0% TDZ 10 (---%) / THR 10 (0hPa)		HL-S		660	960	1200				
KP424 [R] - KP415 [K200] - ELMEX [A5000+]		RW22										
222° to KP424		RT to KP415 (MAX 200KT) - ELMEX climb 5000										
		GS 120 140 160										
		590 690 790										
		DA										
		222°										
		1200										
		RW22 N05 18.5 E100 17.2										
		Circling										
		22 RNAV RNP 0.30 VNAV 1) 2) 3) 4)										
		C ft - m/km 570 - 2.2 580										
		D ft - m/km 570 - 2.2 580										
1) Uncompensated BARO VNAV NA below 0°C (32°F) or above 69°C (156°F) 2) Use with Penang (WMKP) QNH only 3) SBAS-VNAV not authorized 4) With EVS 1.5km												

## PEN-WMKP

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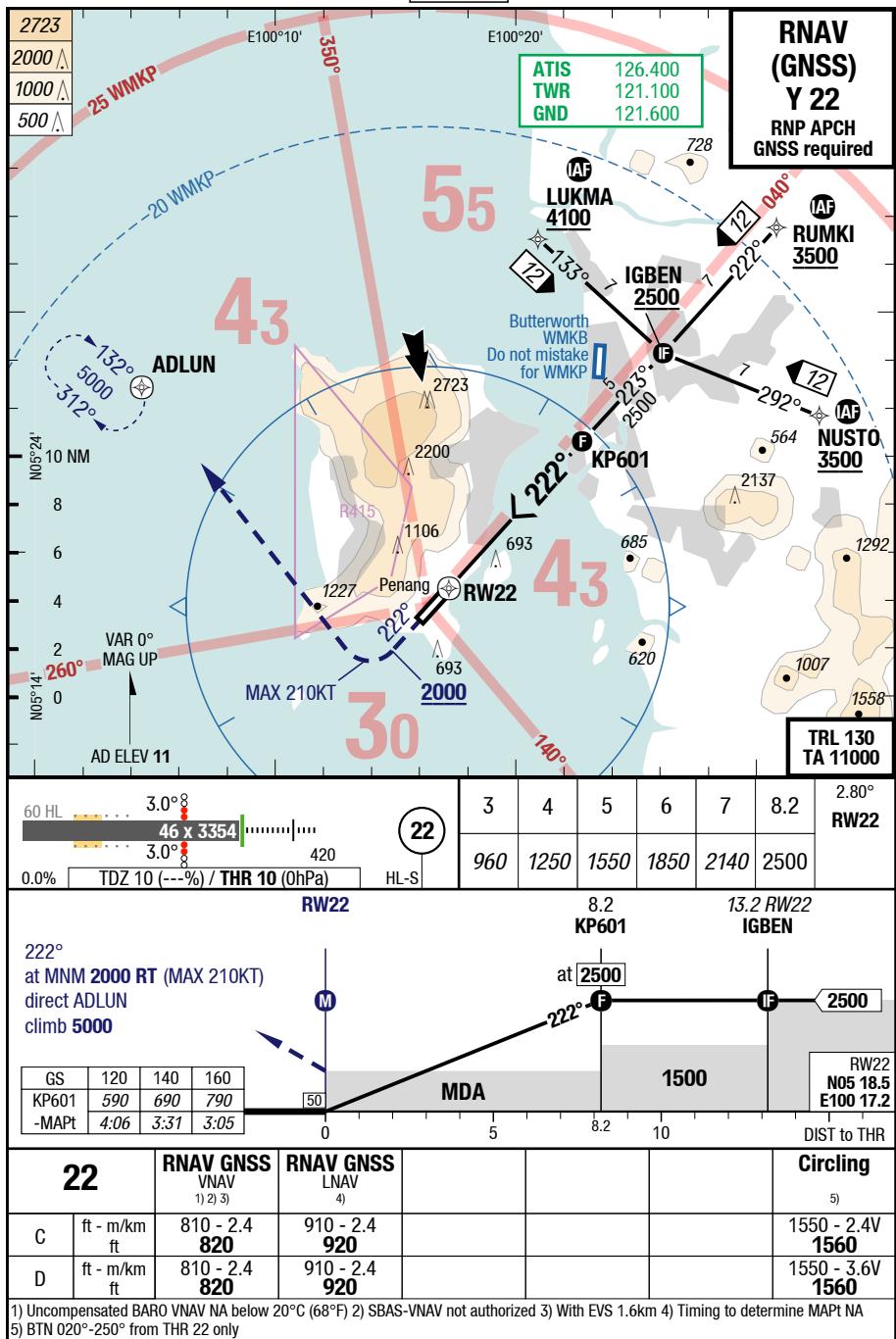
## RNAV (GNSS) Y 04



**PEN-WMKP**

7-60

## **RNAV (GNSS) Y 22**



1) Uncompensated BARO VNAV NA below 20°C (68°F) 2) SBAS-VNAV not authorized 3) With EVS 1.6km 4) Timing to determine MAPt NA  
5) BTN 020°-250° from THR 22 only

## Changes: APL, OBST, AD ELEV

Changes: APL, SUAS, OBST, AD ELEV

