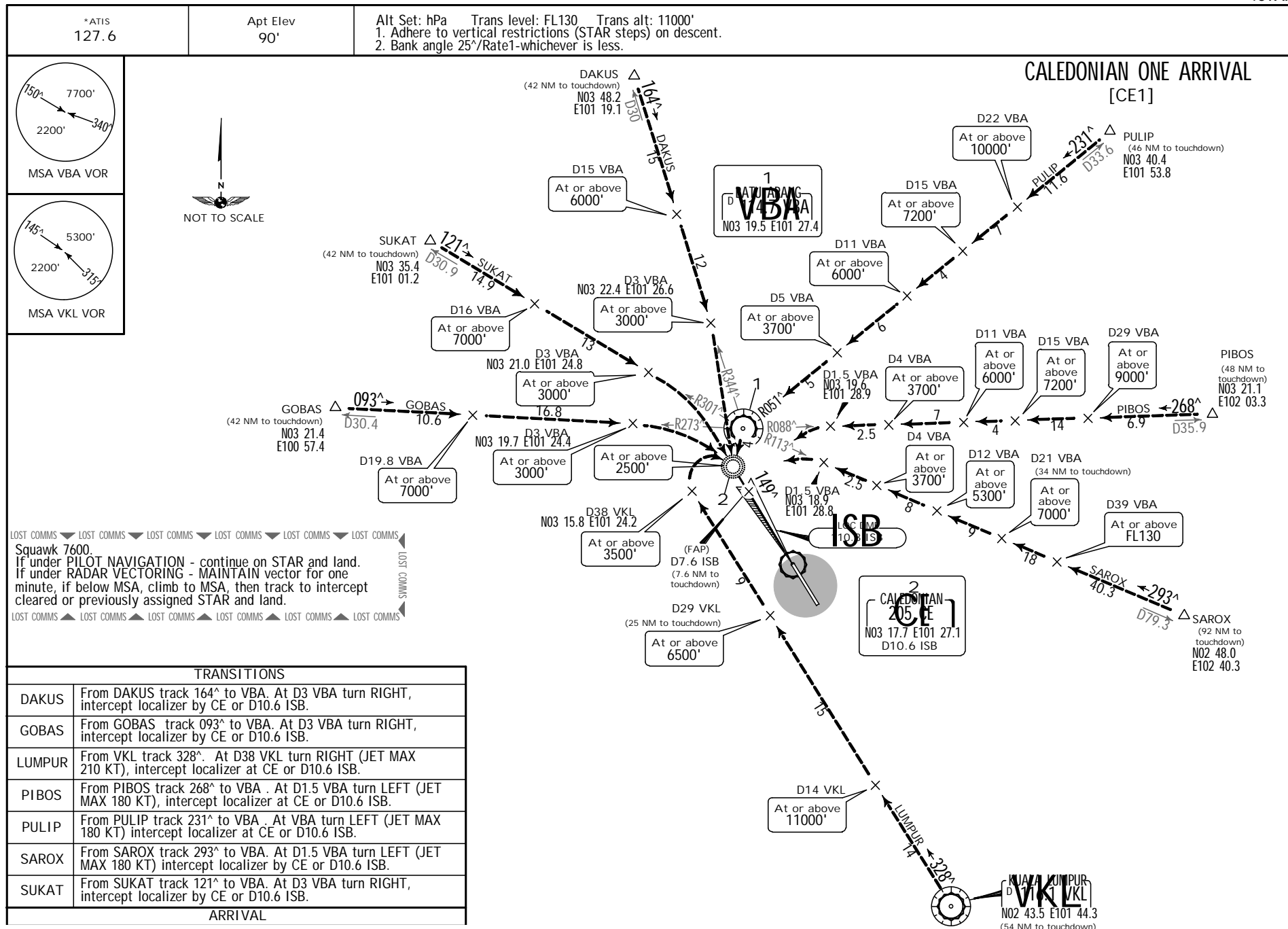


**JEPPESEN**  
29 AUG 14 (10-2)

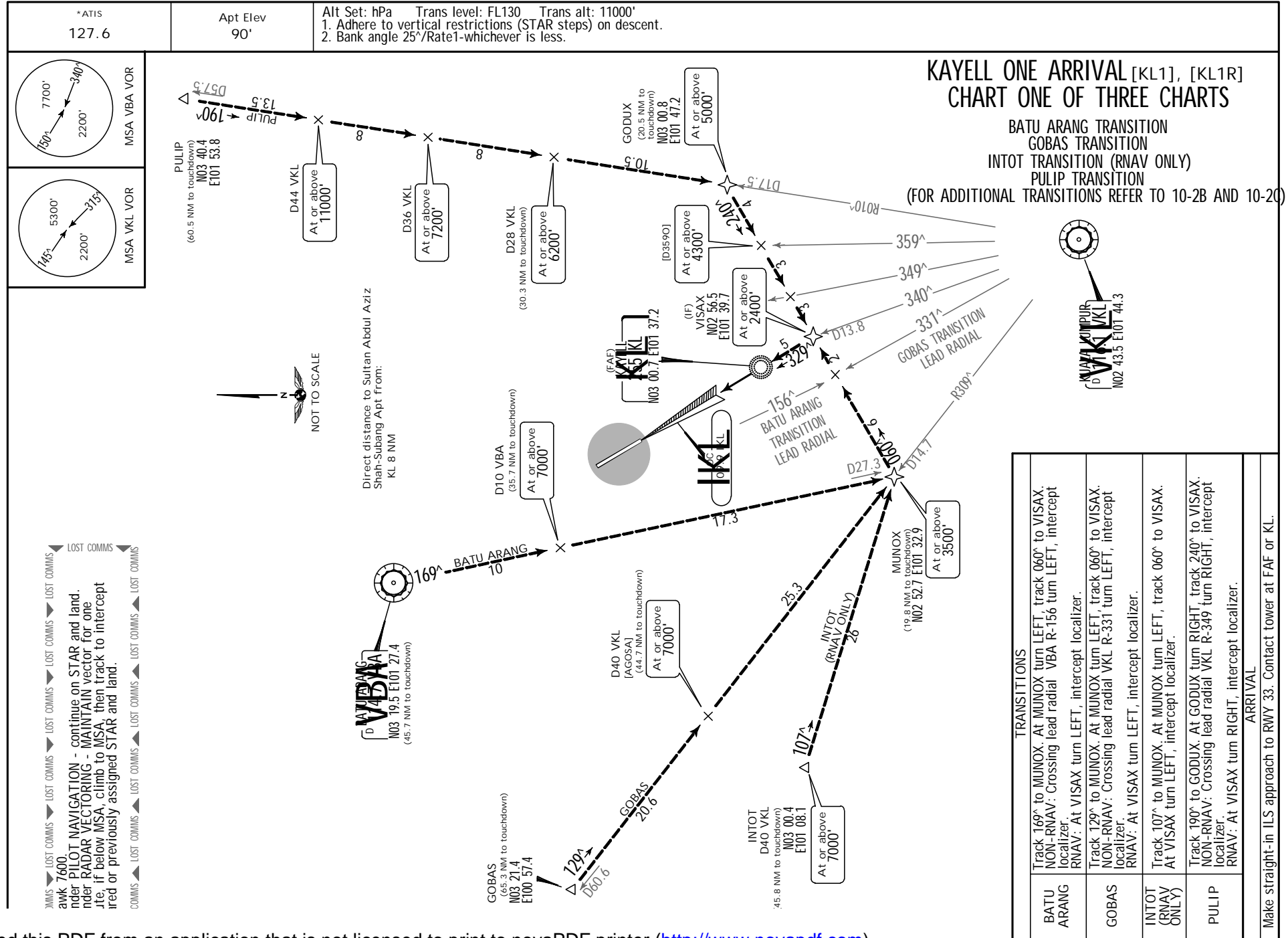
KUALA LUMPUR,  
MALAYSIA  
...STAR.



WMSA/SZB  
 SULTAN ABDUL AZIZ SHAH-SUBANG

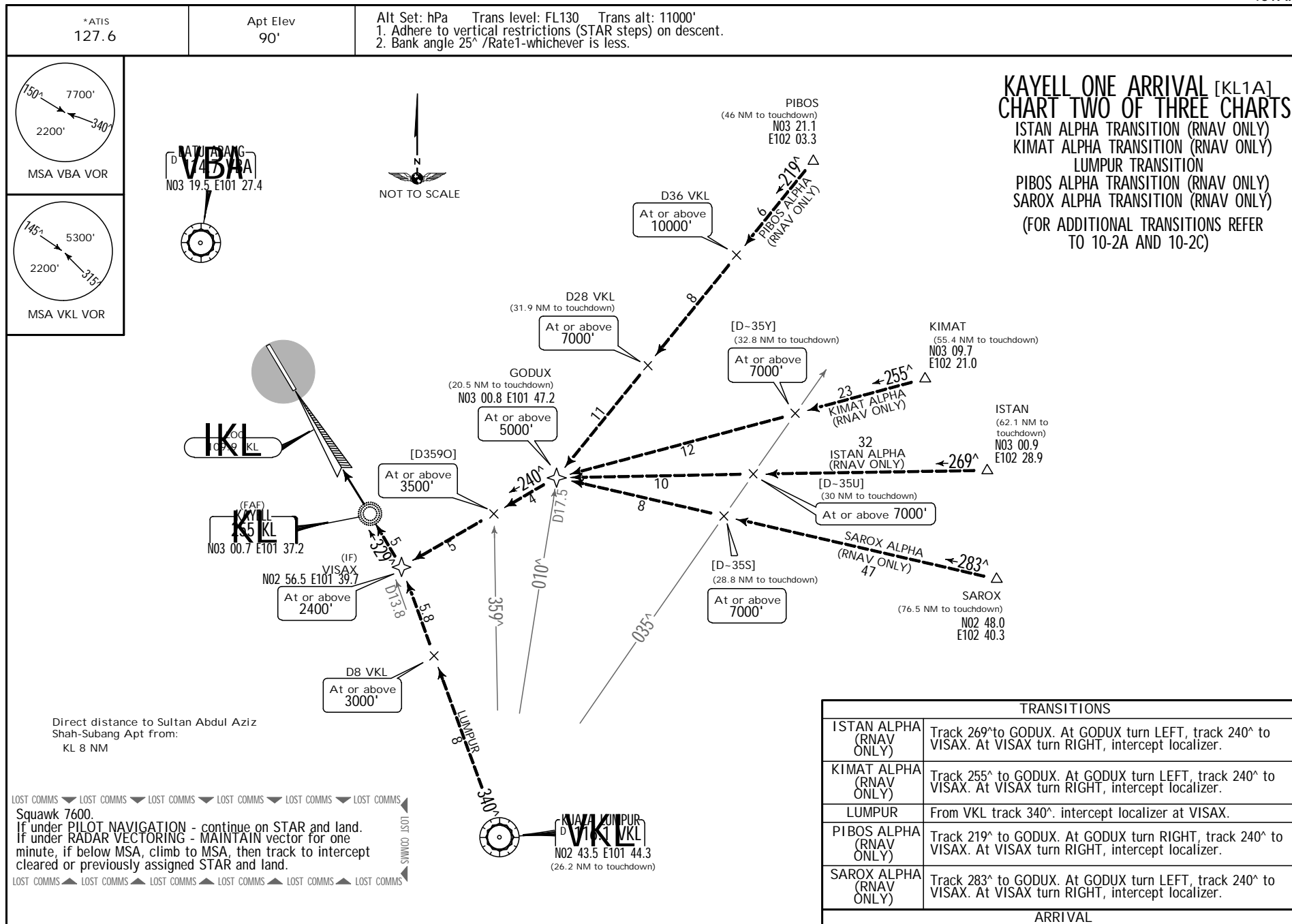
JEPPESEN  
 10-2A 29 AUG 14

KUALA LUMPUR,  
 MALAYSIA  
 .STAR.



**JEPPESEN**  
29 AUG 14 (10-2B)

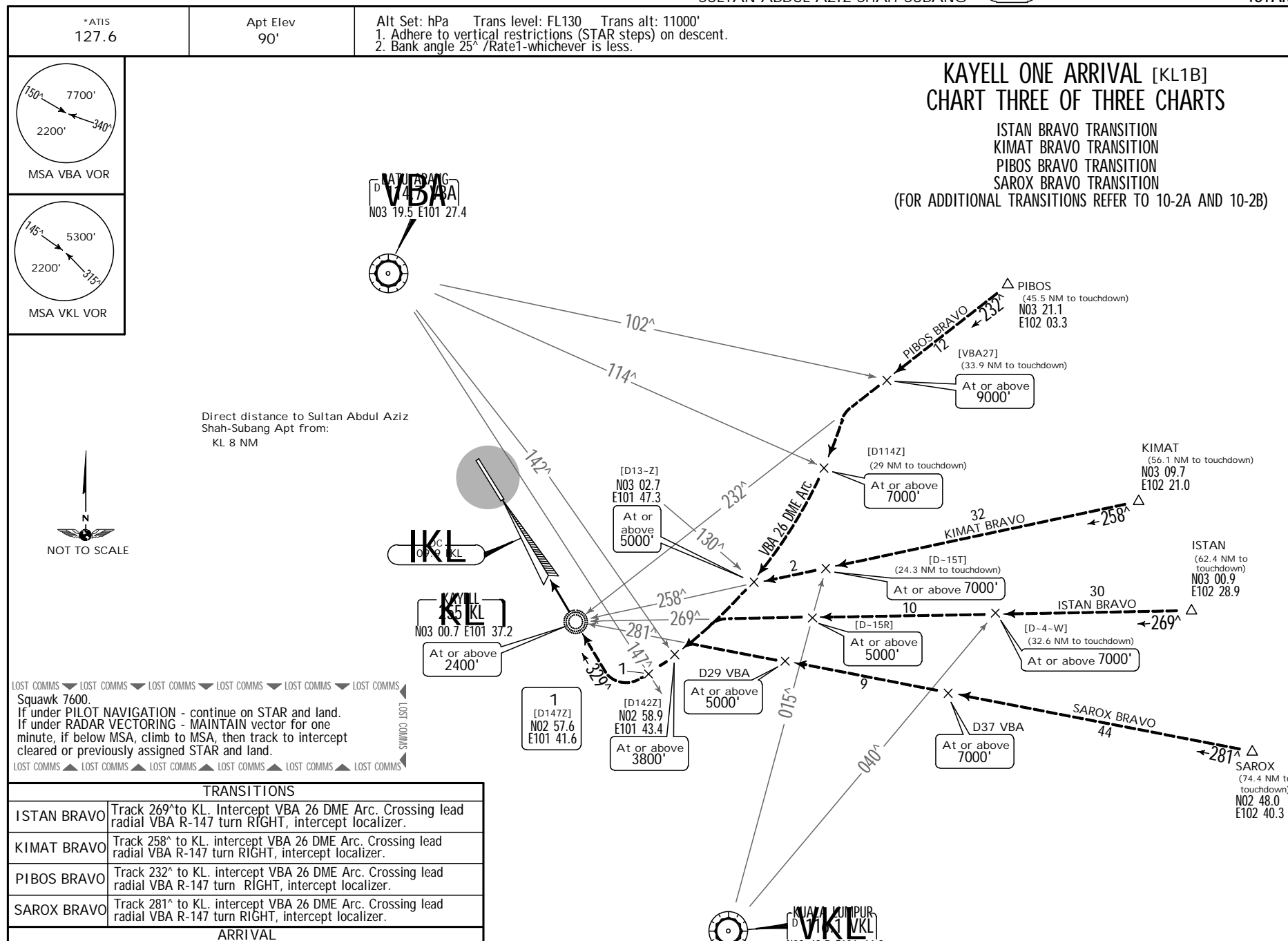
KUALA LUMPUR,  
MALAYSIA  
...STAR.



WMSA/SZB  
SULTAN ABDUL AZIZ SHAH-SUBANG

JEPPesen  
10-2C 29 AUG 14

KUALA LUMPUR  
MALAYSIA  
.STAR.





WMSA/SZB  
 SULTAN ABDUL  
 AZIZ SHAH-SUBANG



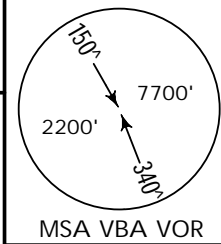
9 MAY 14 (10-3)

KUALA LUMPUR  
 MALAYSIA

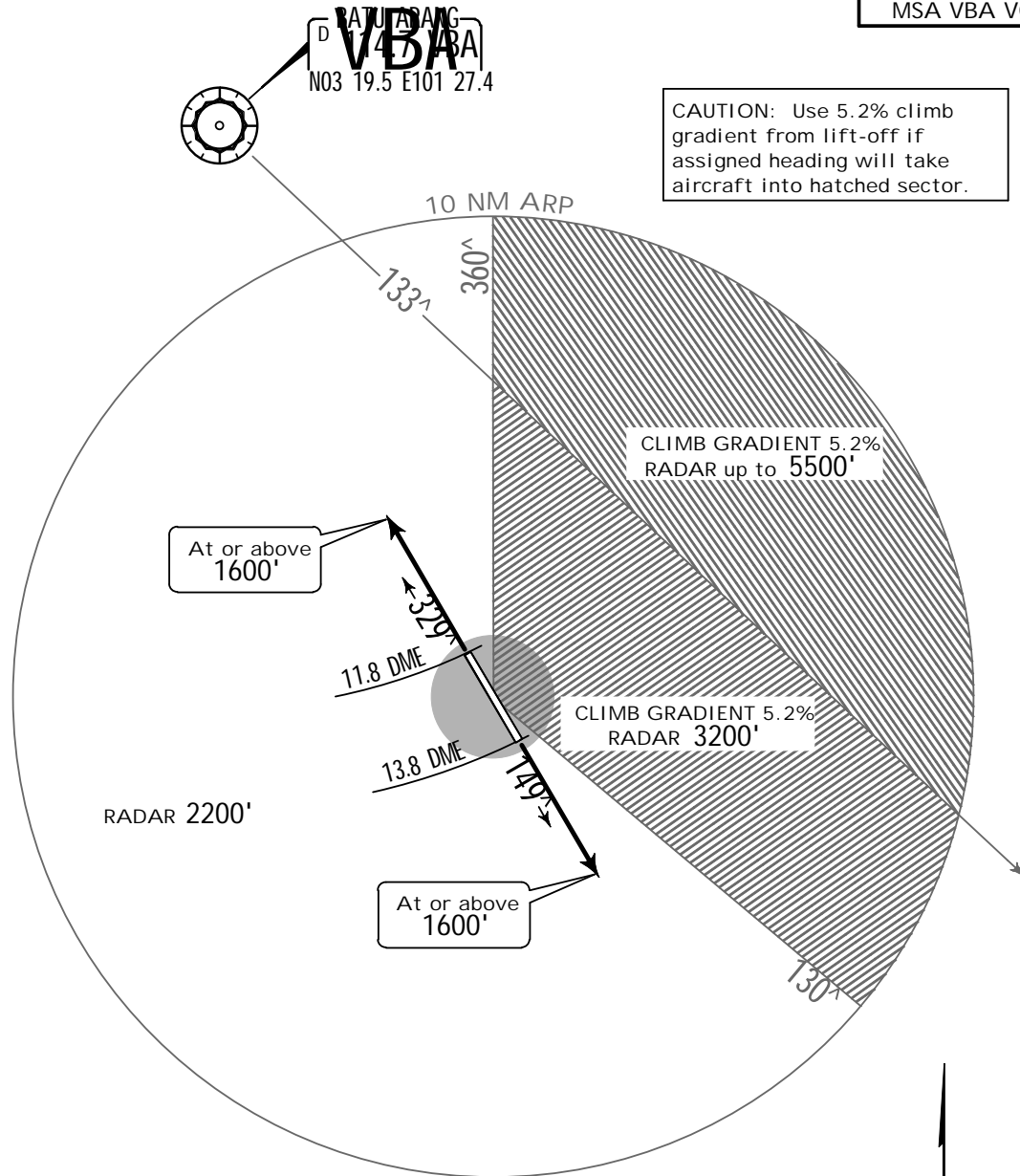
STANDARD RADAR DEPARTURE .SRD.

Apt Elev  
 90'

Trans level: FL130 Trans alt: 11000'  
 Assigned heading (and level if applicable) will be issued  
 with take-off clearance.



## SUBANG RADAR ONE DEPARTURE



COMMS LOST COMMS LOST COMMS LOST COMMS LOST  
 Immediately Squawk 7600.  
 Maintain assigned heading. Climb to MSA or last assigned level if higher. Maintain MSA or assigned level, as applicable, for 2 minutes. Then climb to flight planned level and intercept flight planned track (as amended by ATC, if applicable).



Gnd speed-KT	75	100	150	200	250	300
5.2% V/V (fpm)	395	527	790	1053	1317	1580

RWY	INITIAL CLIMB
15	Track 149° until beyond departure end of runway (VBA 13.8 DME). At 1600' turn to assigned heading.
33	Track 329° until beyond departure end of runway (VBA 11.8 DME). At 1600' turn to assigned heading.
ROUTING	
Contact Approach when airborne and advise direction of turn and assigned heading, level	



WMSA/SZB

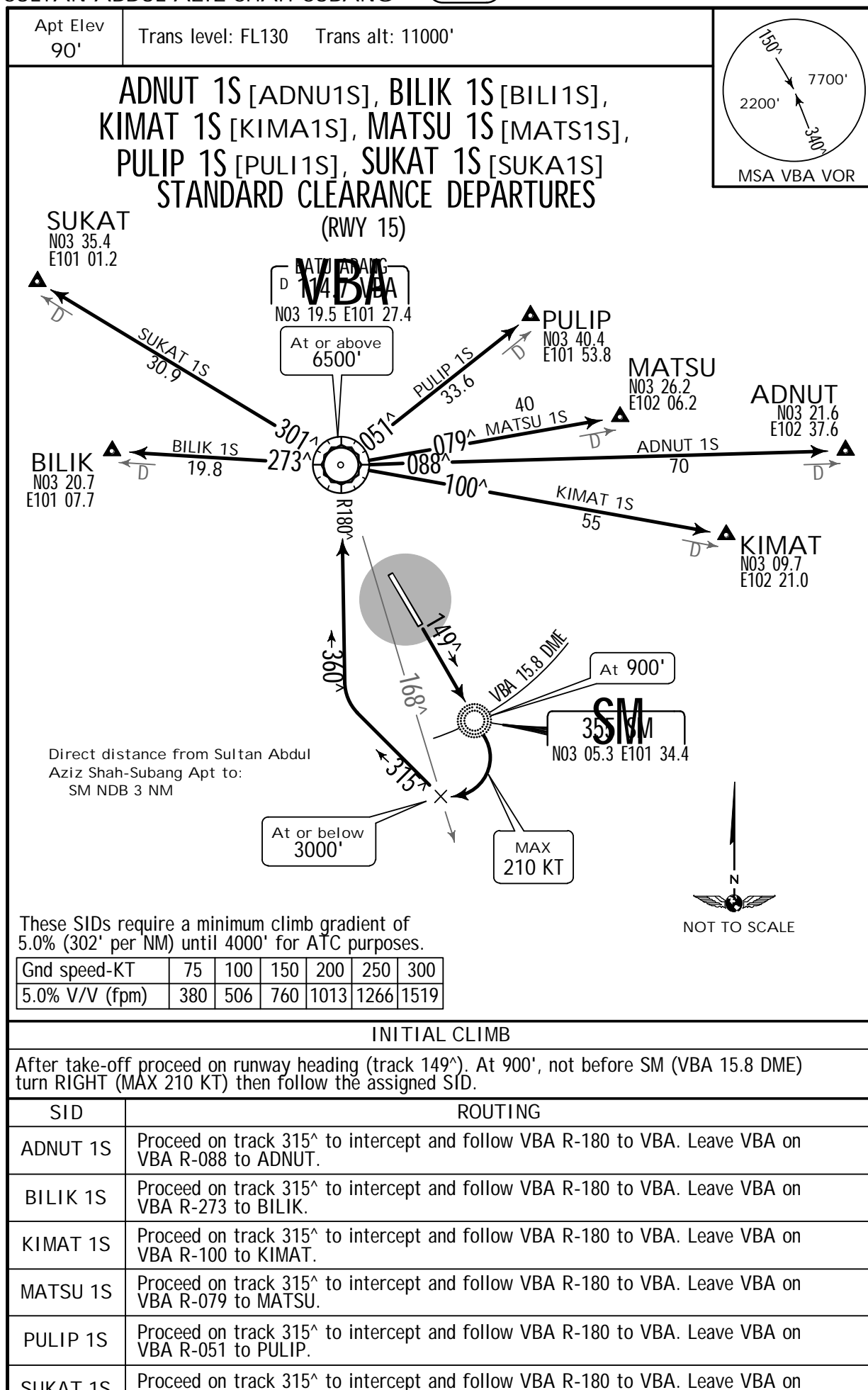
SULTAN ABDUL AZIZ SHAH-SUBANG

JEPPESEN

(10-3A)

9 MAY 14

KUALA LUMPUR  
MALAYSIA  
.SID.



WMSA/SZB

SULTAN ABDUL AZIZ SHAH-SUBANG

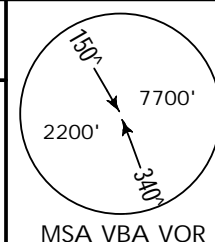
JEPPESEN

10-3B

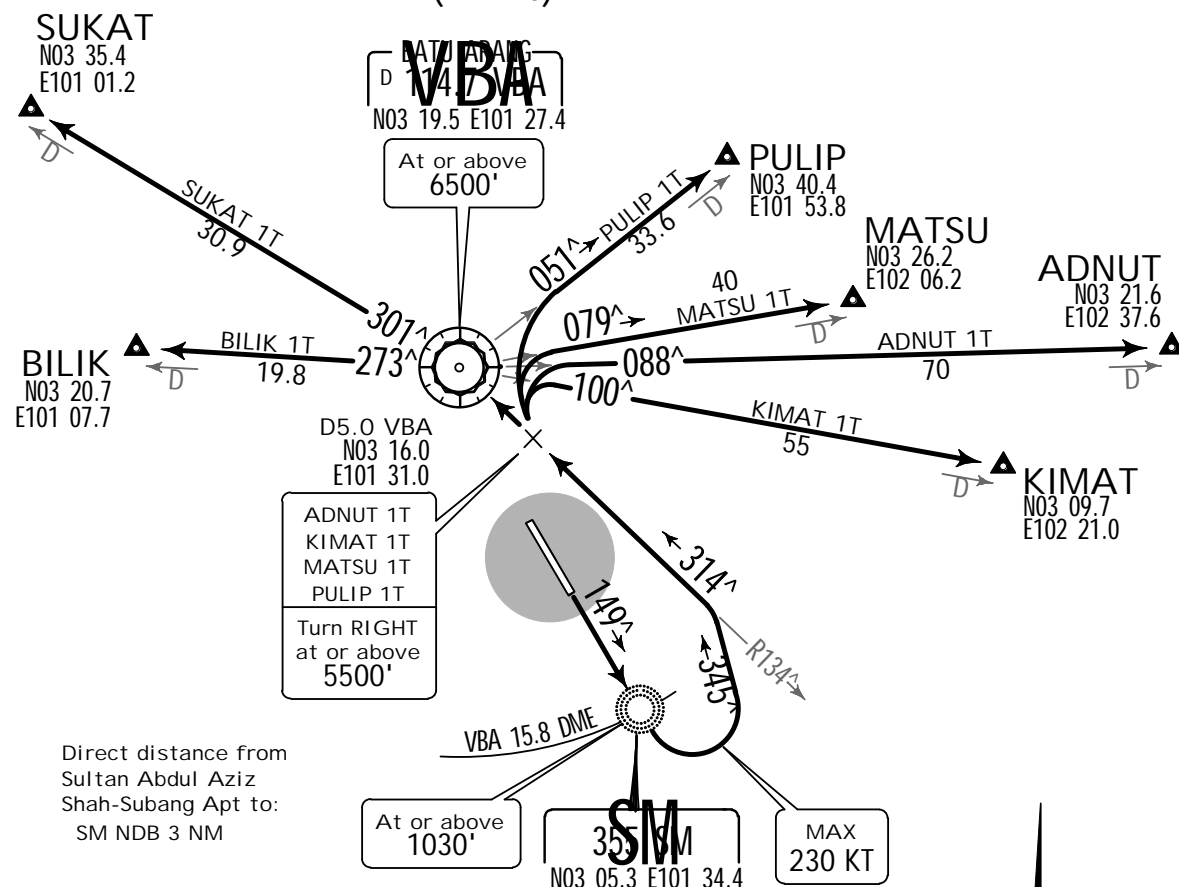
9 MAY 14

KUALA LUMPUR  
MALAYSIA  
.SID.Apt Elev  
90'

Trans level: FL130 Trans alt: 11000'



# ADNUT 1T [ADNU1T], BILIK 1T [BILI1T], KIMAT 1T [KIMA1T], MATSU 1T [MATS1T], PULIP 1T [PULI1T], SUKAT 1T [SUKA1T] LEFT DEPARTURES (RWY 15)



These SIDs require a minimum climb gradient of 8.0% (486' per NM) until 3000'.

Gnd speed-KT	75	100	150	200	250	300
8.0% V/V (fpm)	608	810	1215	1620	2025	2430



## INITIAL CLIMB

After take-off proceed on runway heading (track 149°). At SM (VBA 15.8 DME) turn LEFT (MAX 230 KT) track 345° to intercept and follow VBA R-134 (track 314°), then follow the assigned SID.

SID	ROUTING
ADNUT 1T	Follow VBA R-134 (track 314°). At D5 VBA turn RIGHT to join VBA R-088 (track 088°) to ADNUT.
BILIK 1T	Follow VBA R-134 (track 314°) inbound to VBA to leave VBA on VBA R-273 to BILIK.
KIMAT 1T	Follow VBA R-134 to VBA (track 314°). At D5 VBA turn RIGHT to join VBA R-100 (track 100°) to KIMAT.
MATSU 1T	Follow VBA R-134 (track 314°). At D5 VBA turn RIGHT to join VBA R-079 (track 079°) to MATSU.
PULIP 1T	Follow VBA R-134 (track 314°). At D5 VBA turn RIGHT to join VBA R-051 (track 051°) to PULIP.
SUKAT 1T	Follow VBA R-134 (track 314°) inbound to VBA to leave VBA on VBA R-301 to

WMSA/SZB  
SULTAN ABDUL AZIZ SHAH-SUBANG

JEPPESEN

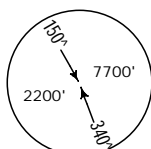
9 MAY 14 10-3C

KUALA LUMPUR  
MALAYSIA  
.SID.

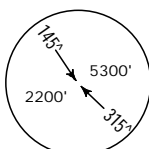
Apt Elev  
90'

Trans level: FL130 Trans alt: 11000'

Bank angle - 15° achieved.



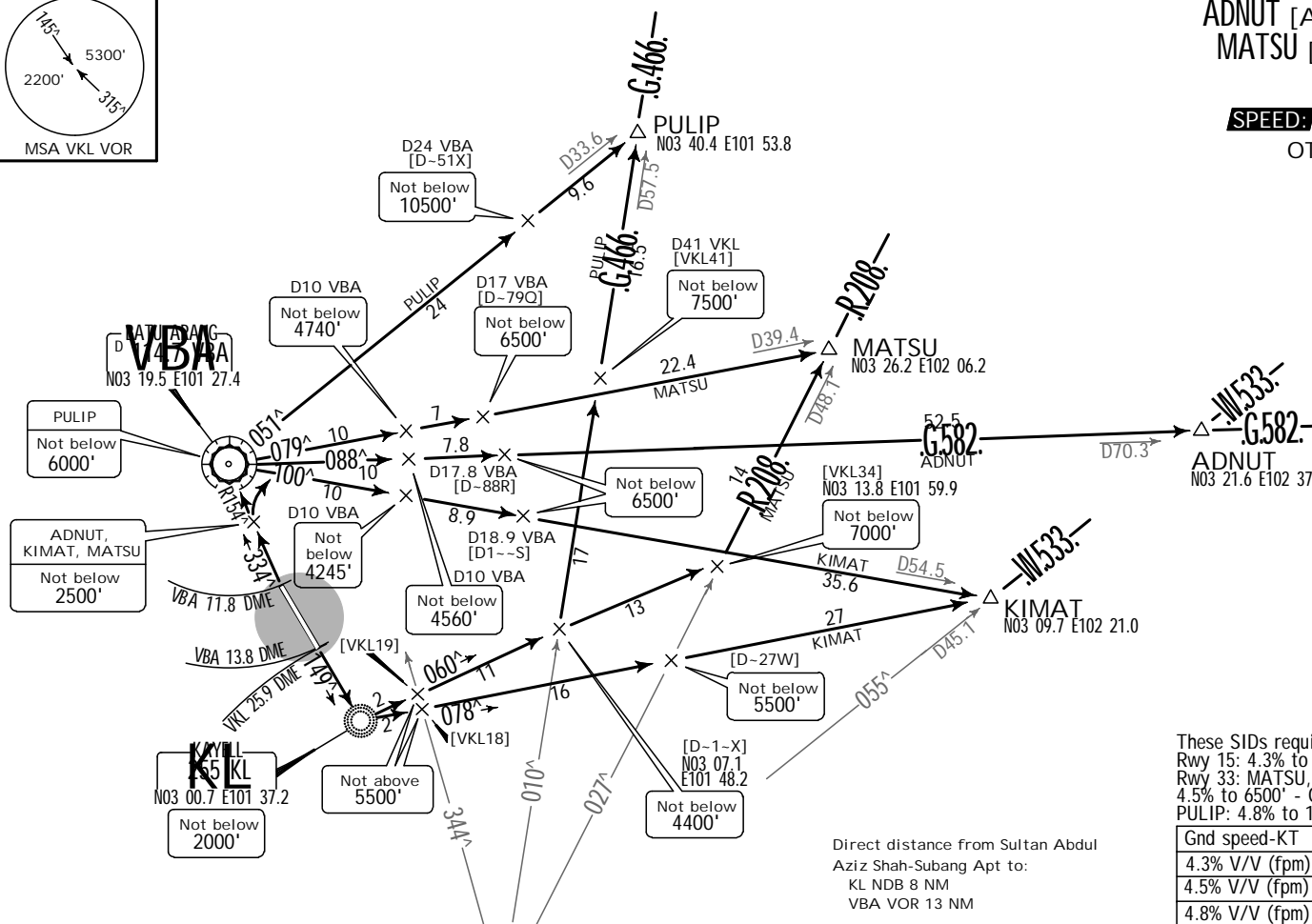
MSA VBA VOR



MSA VKL VOR

ADNUT [ADNUT], KIMAT [KIMAT],  
MATSU [MATSU], PULIP [PULIP]  
DEPARTURES

**SPEED:** MAX IAS 292 KT UNLESS  
OTHERWISE SPECIFIED



These SIDs require minimum climb gradients of:  
Rwy 15: 4.3% to 3000' - Obstacles/CTA.  
Rwy 33: MATSU, ADNUT and KIMAT:  
4.5% to 6500' - Obstacle/CTA.  
PULIP: 4.8% to 10500' - CTA.

Gnd speed-KT	75	100	150	200	250	300
4.3% V/V (fpm)	327	435	653	871	1089	1306
4.5% V/V (fpm)	342	456	684	911	1139	1367
4.8% V/V (fpm)	365	486	729	972	1215	1458

Direct distance from Sultan Abdul  
Aziz Shah-Subang Apt to:  
KL NDB 8 NM  
VBA VOR 13 NM



KUALA LUMPUR  
D 43.5 E101 44.3

RWY	INITIAL CLIMB
15	Track 149° to KL NDB. At KL NDB turn LEFT. MAINTAIN 5500' until crossing VKL R-344.
33	After departure end of runway intercept VBA R-154 inbound to VBA VOR. MAINTAIN 6000' until established on VBA VOR outbound.
SID	ROUTING
ADNUT	RWY 33: At 2500' turn RIGHT, intercept VBA R-088 outbound to ADNUT by D10 VBA EAST of VBA VOR.
KIMAT	RWY 15: Track 078° from KL NDB. Intercept VKL R-055 outbound to KIMAT. RWY 33: At 2500' turn RIGHT, intercept VBA R-100 outbound to KIMAT by D10 VBA EAST of VBA VOR.
MATSU	RWY 15: Track 060° from KL NDB. Intercept VKL R-027 outbound to MATSU. RWY 33: At 2500' turn RIGHT, intercept VBA R-079 outbound to MATSU by D10 VBA EAST of VBA VOR.

pt VKL R-010 outbound to PULIP.  
bound to PULIP.

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 SULTAN ABDUL AZIZ SHAH-SUBANG

JEPPesen

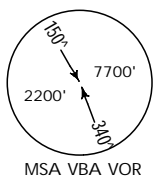
10-3D 9 MAY 14

KUALA LUMPUR  
 MALAYSIA  
 .SID.

Apt Elev  
 90'

Trans level: FL130 Trans alt: 11000'

Bank angle - 15° achieved.

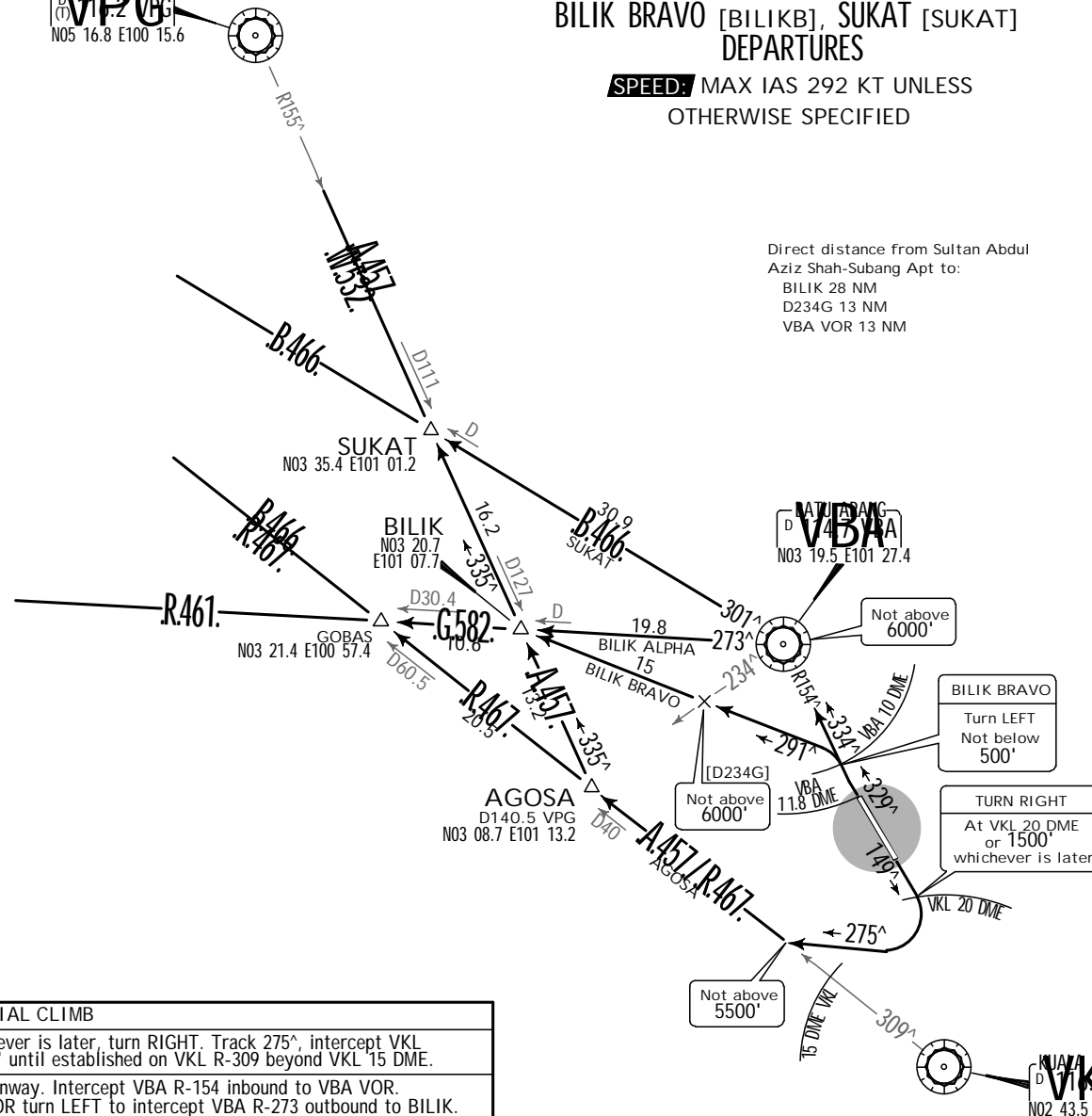


VPCG  
 D (T) 11.2 VPG  
 N05 16.8 E100 15.6

AGOSA [AGOSA], BILIK ALPHA [BILIKA],  
 BILIK BRAVO [BILIKB], SUKAT [SUKAT]  
 DEPARTURES

**SPEED:** MAX IAS 292 KT UNLESS  
 OTHERWISE SPECIFIED

Direct distance from Sultan Abdul  
 Aziz Shah-Subang Apt to:  
 BILIK 28 NM  
 D234G 13 NM  
 VBA VOR 13 NM



BILIK BRAVO SID requires a minimum climb gradient:  
 3.9% to 7000' - Traffic/CTA.

Gnd speed-KT	75	100	150	200	250	300
3.9% V/V (fpm)	296	395	592	790	987	1185

SID	INITIAL CLIMB
AGOSA	RWY 15: Track 149°. At VKL 20 DME or 1500', whichever is later, turn RIGHT. Track 275°, intercept VKL R-309 outbound to AGOSA. MAINTAIN 5500' until established on VKL R-309 beyond VKL 15 DME.
BILIK ALPHA	RWY 33: Track 329° until beyond departure end of runway. Intercept VBA R-154 inbound to VBA VOR. MAINTAIN 6000' until VBA VOR. At VBA VOR turn LEFT to intercept VBA R-273 outbound to BILIK.
BILIK BRAVO	RWY 33: Track 329° until beyond departure end of runway. At VBA 10 DME not below 500' turn LEFT. Track 291° to BILIK. MAINTAIN 6000' until crossing VBA R-234.

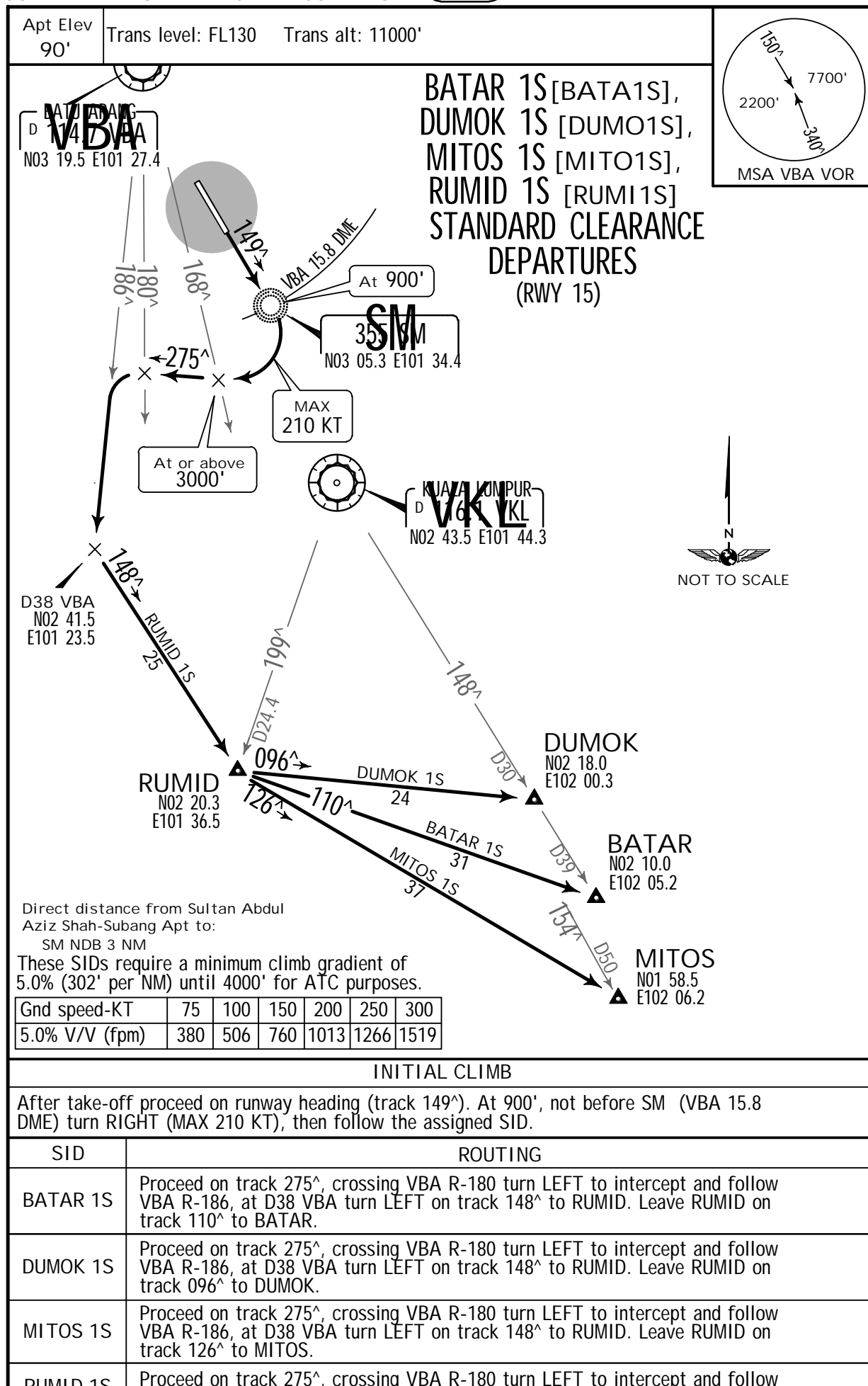
WMSA/SZB

SULTAN ABDUL AZIZ SHAH-SUBANG

JEPPESEN

10-3E

9 MAY 14

KUALA LUMPUR  
MALAYSIA  
.SID.

KUALA LUMPUR,  
MALAYSIA

9 MAY 14 (10-3F)

.SID.

Bank angle - 15° achieved.





WMSA/SZB

SULTAN ABDUL AZIZ SHAH-SUBANG

JEPPESEN

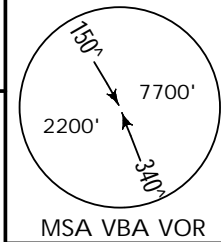
(10-3G)

9 MAY 14

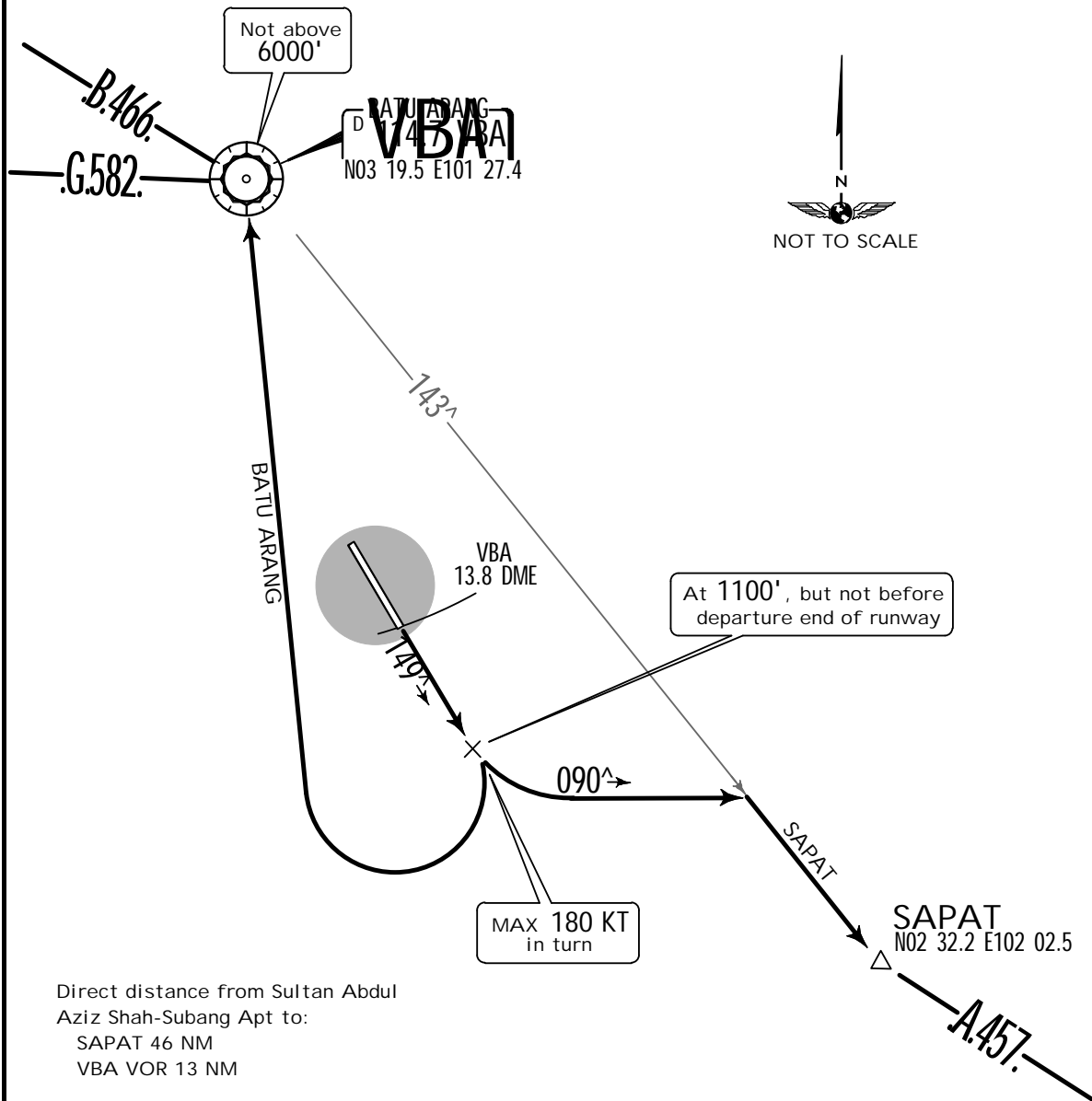
KUALA LUMPUR  
 MALAYSIA  
 .SID.

Apt Elev  
 90'

Trans level: FL130 Trans alt: 11000'



# BATU ARANG [VBA], SAPAT [SAPAT] DEPARTURES (RWY 15)



Direct distance from Sultan Abdul  
 Aziz Shah-Subang Apt to:  
 SAPAT 46 NM  
 VBA VOR 13 NM

These SIDs require a minimum climb gradient of  
 3.9% to 1100' - Obstacles, KLIA traffic.

Gnd speed-KT	75	100	150	200	250	300
3.9% V/V(fpm)	296	395	592	790	987	1185

## INITIAL CLIMB

Track 149°. At 1100', but not before departure end of runway, turn LEFT or RIGHT as appropriate.

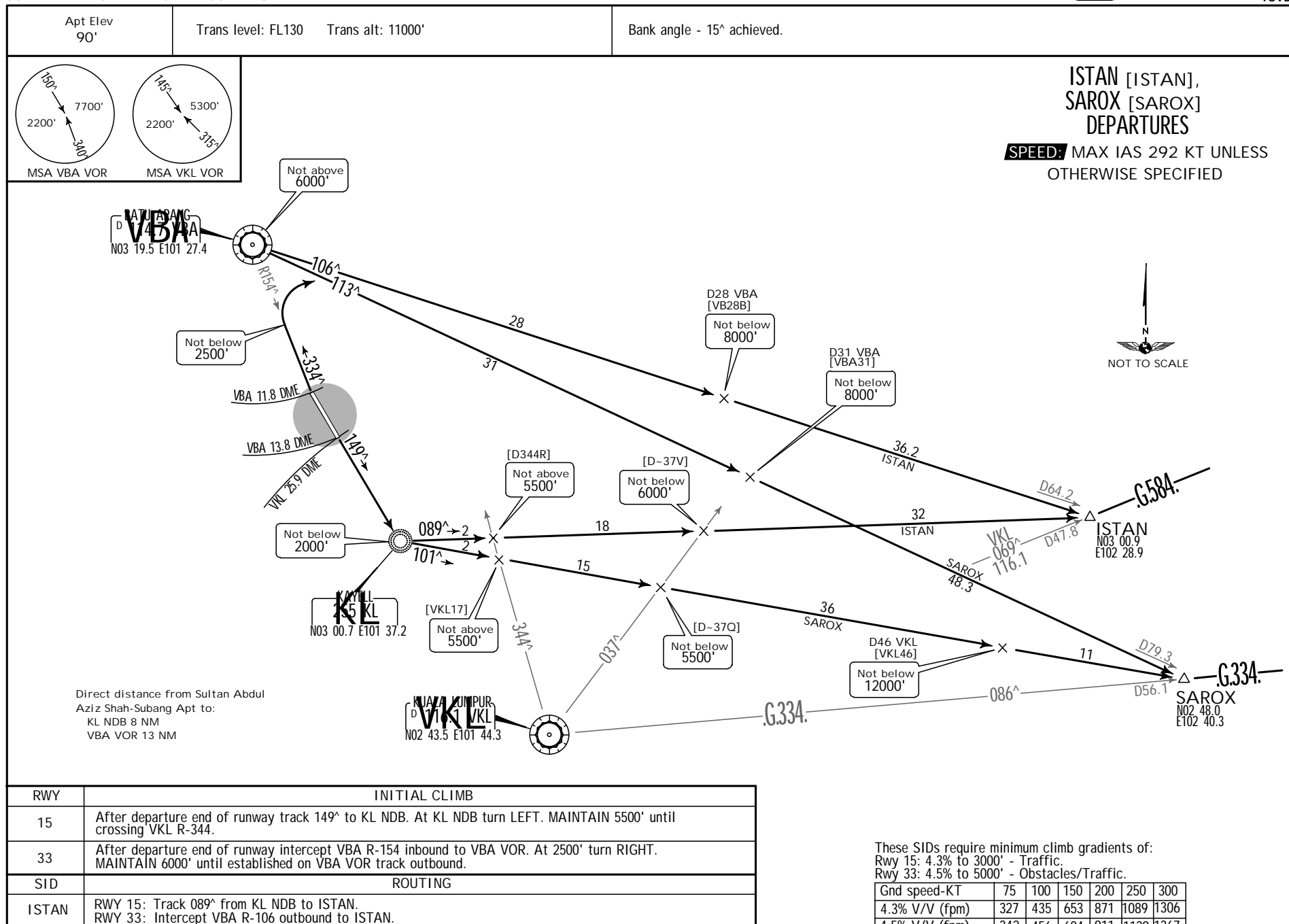
SID	ROUTING
BATU ARANG	Turn RIGHT, track direct to VBA VOR. MAINTAIN 6000' (further climb on ATC instruction).



WMSA/SZB  
SULTAN ABDUL AZIZ SHAH-SUBANG

JEPPESEN  
9 MAY 14 10-3H

KUALA LUMPUR  
MALAYSIA  
.SID.



WMSA/SZB

JEPPESEN

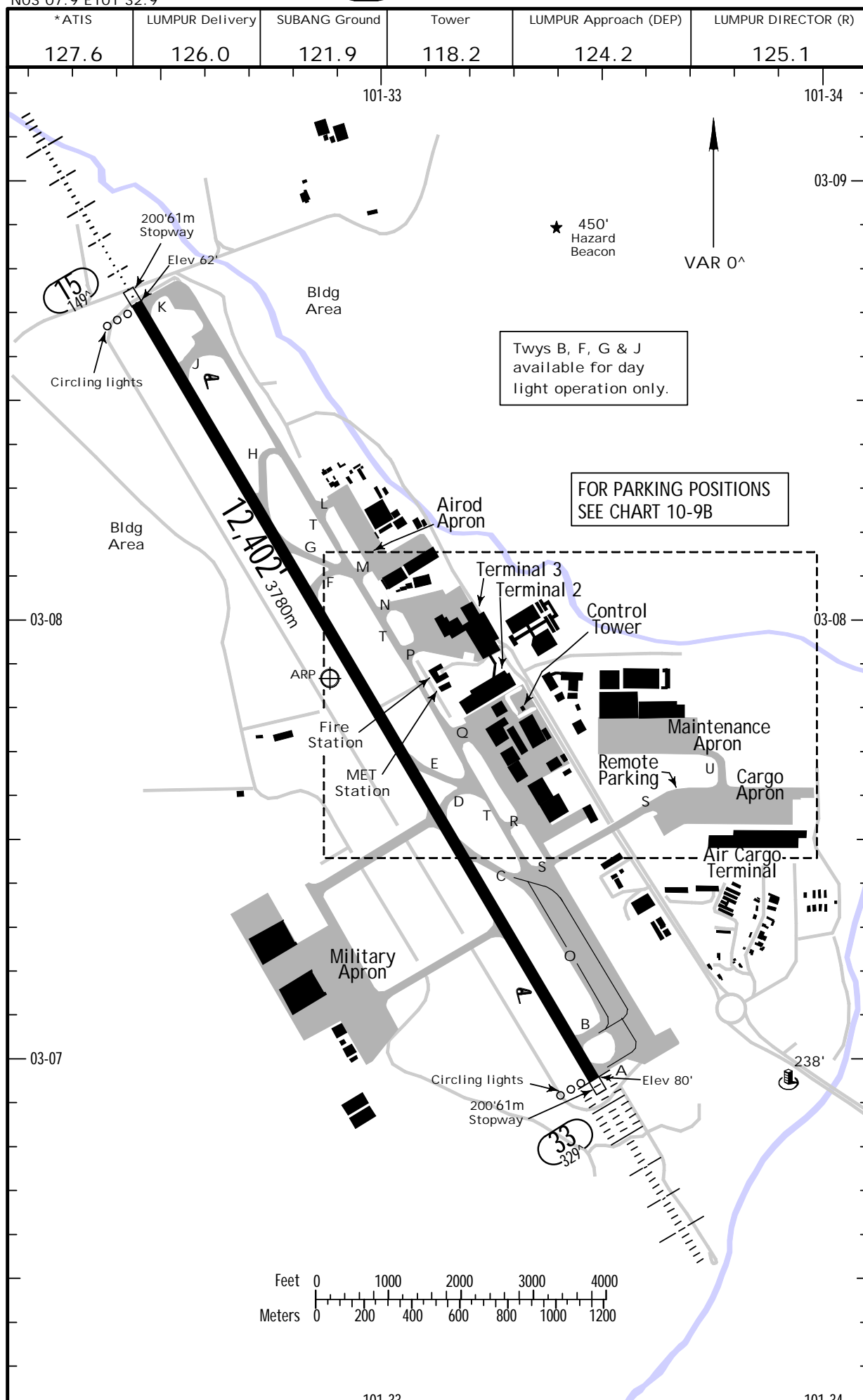
KUALA LUMPUR, MALAYSIA

Apt Elev 89'

6 JUN 14

10-9

SULTAN ABDUL AZIZ SHAH-SUBANG



WMSA/SZB

6 JUN 14

JEPPESEN  
10-9AKUALA LUMPUR, MALAYSIA  
SULTAN ABDUL AZIZ SHAH-SUBANGGENERAL

Two way radio required.

## ADDITIONAL RUNWAY INFORMATION

		USABLE LENGTHS			
RWY		LANDING BEYOND		TAKE-OFF	WIDTH
		Threshold	Glide Slope		
15	HIRL HIALS PAPI (angle 3.0^)		11358' 3462m		148'
33	HIRL HIALS PAPI-L (angle 3.0^)		11208' 3416m		45m

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TAKE-OFF					
AIR CARRIER (JAA)			AIR CARRIER (FAR 121)		
LVP must be in Force All Rwys RCLM (Day only) or RL		All Rwys RCLM (Day only) or RL	All Rwys Adequate Vis Ref		
A			2 Eng		
B	RVR 250m	RVR 400m		RVR 500m	
C			3 & 4 Eng	VIS 400m	
D	RVR 300m				

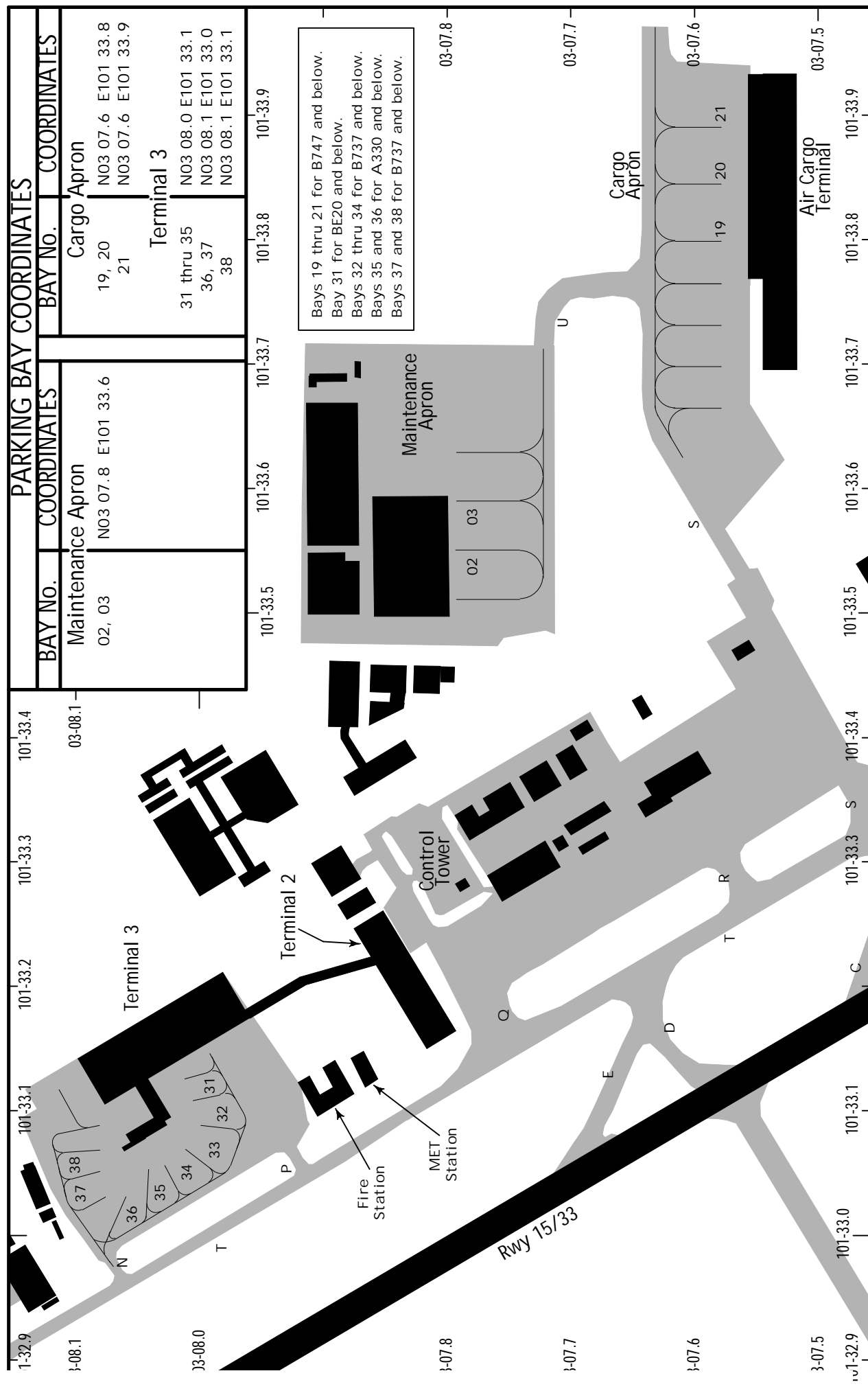
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WMSA/SZB

29 MAR 13

10-9B

KUALA LUMPUR, MALAYSIA  
SULTAN ABDUL AZIZ SHAH-SUBANG



WMSA/SZB

JEPPESEN

KUALA LUMPUR, MALAYSIA

24 MAR 06

(10-9D)

SULTAN ABDUL AZIZ SHAH-SUBANG

.AIRPORT.

## VISUAL DOCKING GUIDANCE SYSTEMS

## FMT AIRCRAFT PARKING SYSTEM - STAND 1

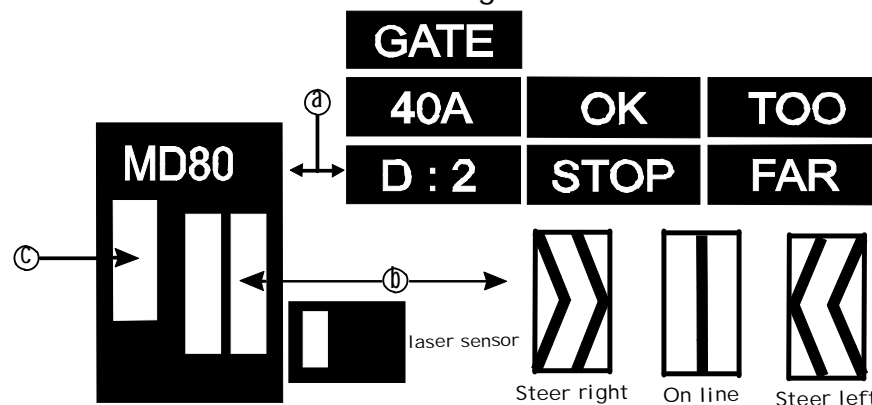
A new visual docking guidance system, FMT Aircraft Parking System, is installed in conjunction with the glass aerobridge operating on Parking Bay 1. The system is designed to enable pilots to taxi onto the aircraft stand without the assistance of a marshaller.

FMT is based on a centerline guidance sub-display. The steering and stop indication is provided from a display unit mounted on the terminal building in front of the cockpit in line with the left hand pilot seat. The following is the sequence of FMT operation from initial approach to STOP:

- Follow the taxi-in line and watch the centerline beacon.
- Check that the correct aircraft type is flashing, and if appropriate, that the door number is shown. The gate number may be displayed instead.
- Approximately 32 meters before STOP, the gate number will disappear.
- About 21 meters before STOP, the aircraft type display goes steady and the door number disappears.
- Follow the azimuth guidance display. The black arrow heads indicate which direction to steer for the centerline. When the aircraft is properly aligned in azimuth, the black vertical bar will be displayed.
- The full closing rate 'thermometer' bar indicates at least 16 meters to STOP.
- When the aircraft reaches 16 meters to STOP, the 'thermometer' bar lights begin to move from bottom to top. If the aircraft's forward speed is too high, the top display may indicate SLOW DOWN.
- When the STOP position is reached, all the closing rate 'thermometer' bar lights extinguish and the display indicates STOP. If the aircraft is parked correctly, the display also indicates OK.
- If the aircraft overshoots the limit for correct parking, the display indicates TOO FAR.
- The entire display automatically shuts down after some seconds. The system is also capable of displaying ONBLOCK followed by TIME.

Note: When the last row of lights of the closing rate 'thermometer' is extinguished and the word STOP is displayed, the aircraft should be at a standstill.

FMT Diagram



- Display: GATE number, ACFT type, DOOR number, SLOW DOWN, STOP, OK or TOO/FAR.
- Centerline Beacon: Steering guidance.
- Closing Rate Information: Full closing rate thermometer indicates at least

WMSA/SZB



JEPPESEN

24 MAR 06

(10-9E)

SULTAN ABDUL AZIZ SHAH-SUBANG

.AIRPORT.

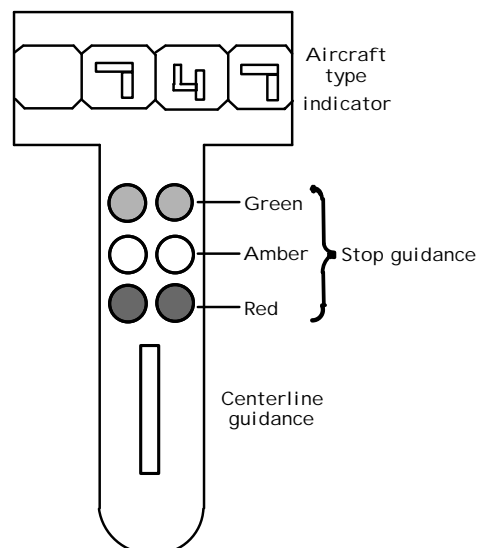
KUALA LUMPUR, MALAYSIA

## RLG AUTOMATED GUIDE-IN SYSTEM - STANDS 2 THRU 14

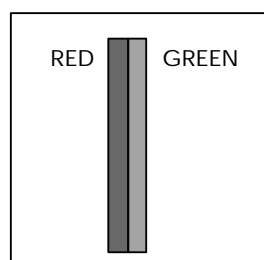
The RLG Automated Guide-in System is designed to enable pilots to taxi onto the aircraft stand without the assistance of a marshaller.

The system consists of a dual display unit attached to the terminal building. The upper housing indicates aircraft type, and the lower housing provides centerline and stopping guidance, as follows:

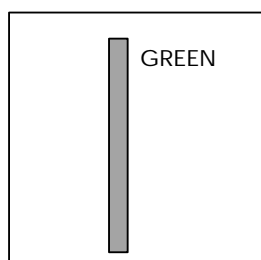
- a. The upper housing of the display contains digital aircraft type indicators.



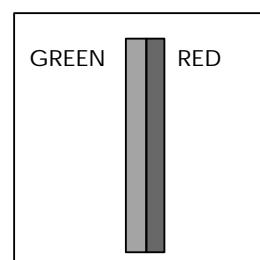
- b. The centerline guidance system utilizes three vertical neon tubes; a green neon tube flanked by two red neon tubes. The green tube is encased in baffles 46 cm deep, while the red tubes are situated behind flanges so as not to be visible when viewed head-on. When taxiing onto the stand,



Aircraft left of centerline  
- steer towards GREEN

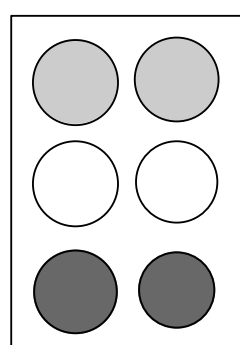


Aircraft on  
centerline



Aircraft right of centerline  
- steer towards GREEN

- c. Situated above the three neon tubes are three pairs of incandescent lamps which provide stopping guidance. The top pair are green, the center pair are amber, and the bottom pair are red. Each pair of lamps are illuminated in sequence, indicating the following:



GREEN - Ramp clear

AMBER - 4.5 meters to STOP

RED - STOP

WMSA/SZB



JEPPESEN

KUALA LUMPUR, MALAYSIA

24 MAR 06

(10-9F)

SULTAN ABDUL AZIZ SHAH-SUBANG

.AIRPORT.

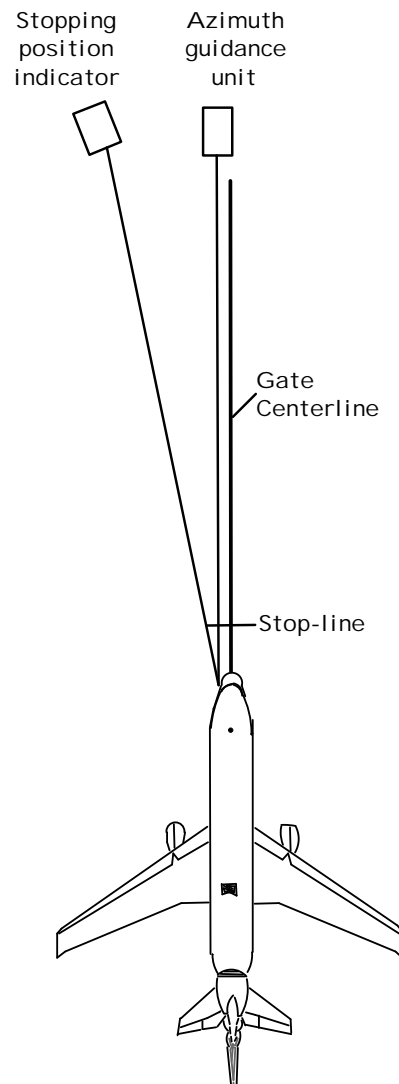
## AIRPARK SYSTEM - STANDS 30-40

The system is based on an azimuth guidance unit located in the extension of the gate centerline, in front of the cockpit. Stopping guidance is provided by a stopping position indicator located left of the azimuth guidance unit.

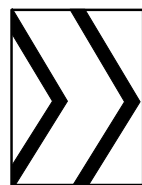
- a. The azimuth guidance unit shows a single vertical line when the aircraft is on centerline.

If the aircraft strays off centerline, the unit shows an arrow pattern indicating the direction to turn.

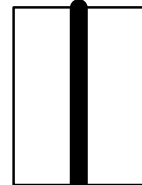
- b. Proceed forward until stopping position indicator shows a single vertical line.



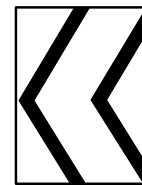
Azimuth guidance unit



Turn right

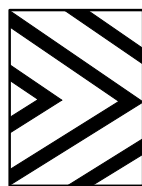


On centerline

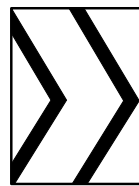


Turn left

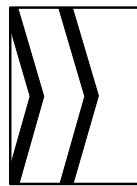
Stopping position indicator



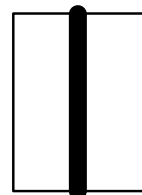
Proceed



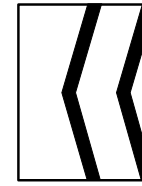
Slow down



Close to stop



Stop



Too far



WMSA/SZB

SULTAN ABDUL AZIZ  
SHAH-SUBANG

6 JUN 14

(11-1)



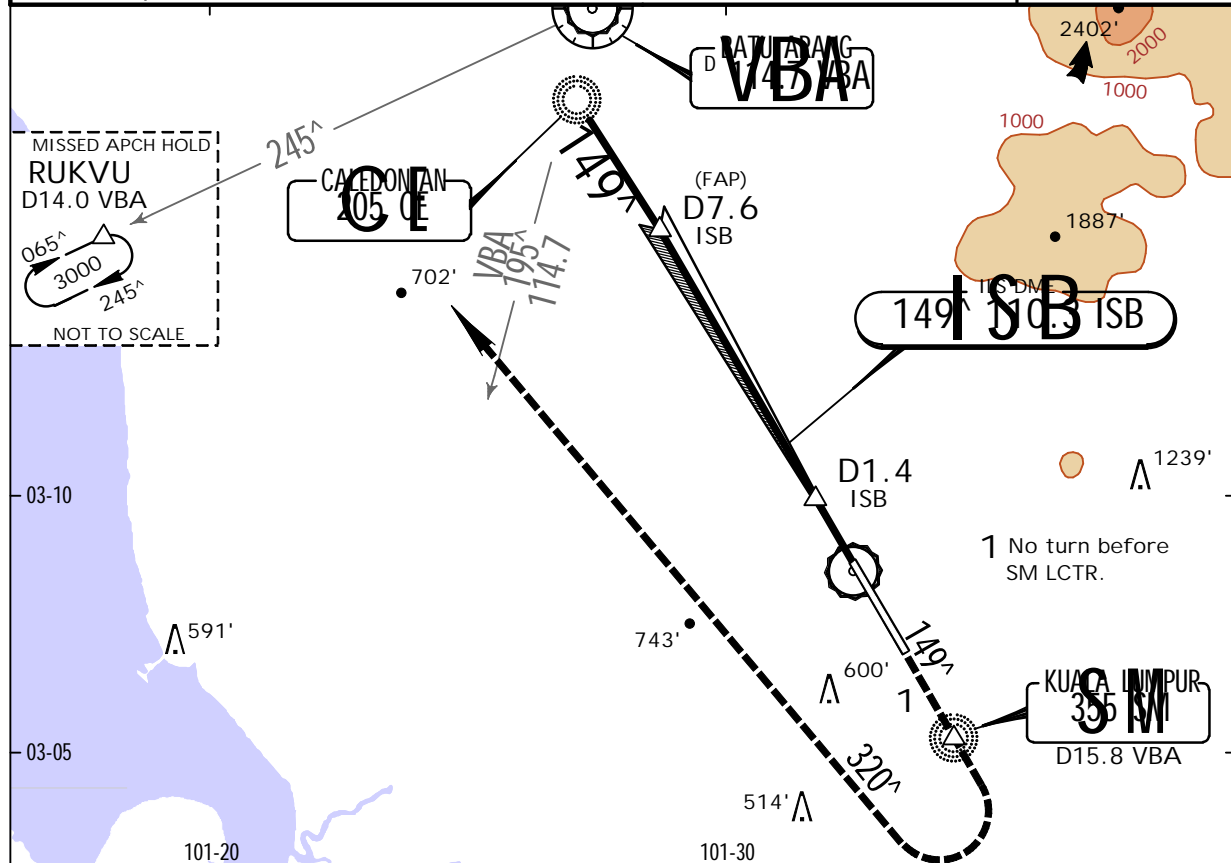
JEPPESSEN

KUALA LUMPUR, MALAYSIA

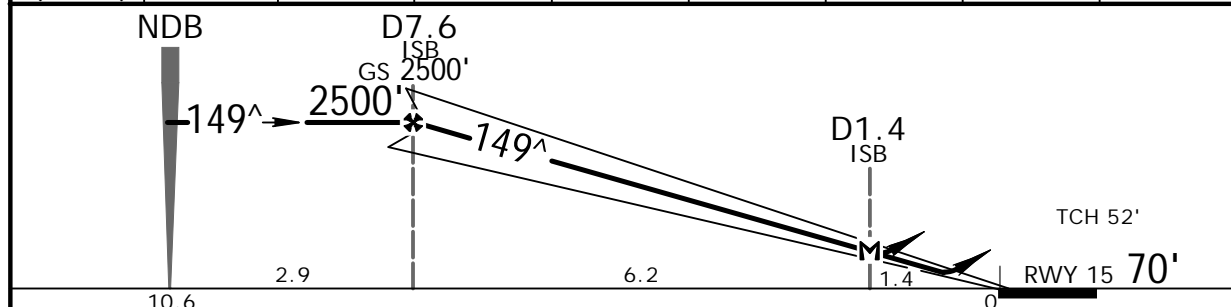
ILS or LOC Rwy 15

BRIEFING STRIP™

*ATIS 127.6	LUMPUR Approach 124.2 118.65 119.45	SUBANG Tower 118.2	Ground 121.9
LOC ISB 110.3	Final Apch Crs 149°	GS FAP 2500' (2430')	ILS DA(H) Refer to Minimums
	Apt Elev 90' Rwy 15 70'		
<p>MISSED APCH: Proceed on track 149° climbing initially to 2000'. Passing 1000', not before SM LCTR (D15.8 VBA), turn right (IAS MAX 210 KT) on 320°. Crossing R-195 VBA continue climb to 3000'; reaching 3000' turn left bound to RUKVU holding pattern.</p> <p>Alt Set: hPa Rwy Elev: 3 hPa Trans level: FL 130 Trans alt: 11000'</p> <p>1. DME required. 2. Missed approach Max IAS 210 KT.</p>			
			MSA VBA VOR



LOC (GS out)	ISB DME	7.6	6.0	5.0	4.0	3.0	2.0	1.4
	ALTITUDE	2500'	2000'	1670'	1345'	1030'	710'	500'



Gnd speed-Kts	70	90	100	120	140	160				
ILS GS or	3.00°	372	478	531	637	743	849			
LOC Descent Gradient	5.2%									
MAP at D1.4										

STRAIGHT-IN LANDING RWY15				CIRCLE-TO-LAND	
DA(H) A: 270' (200') C: 284' (214')		LOC (GS out) MDA(H) 500' (430')			
B: 276' (206') D: 295' (225')					
FULL		ALS out		ALS out	
A				Max Kts	MDA(H)
B	RVR 800m	RVR 1200m	RVR1800m	100	800' (710')-2600m
C				135	1050' (960')-2600m
				180	1240' (1150')-4800m

WMSA/SZB

SULTAN ABDUL AZIZ  
SHAH-SUBANG

6 JUN 14

(11-2)

JEPPESSEN

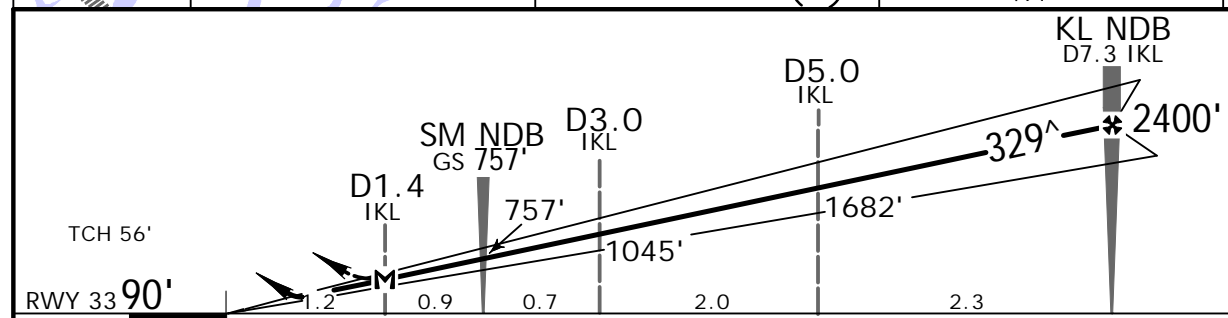
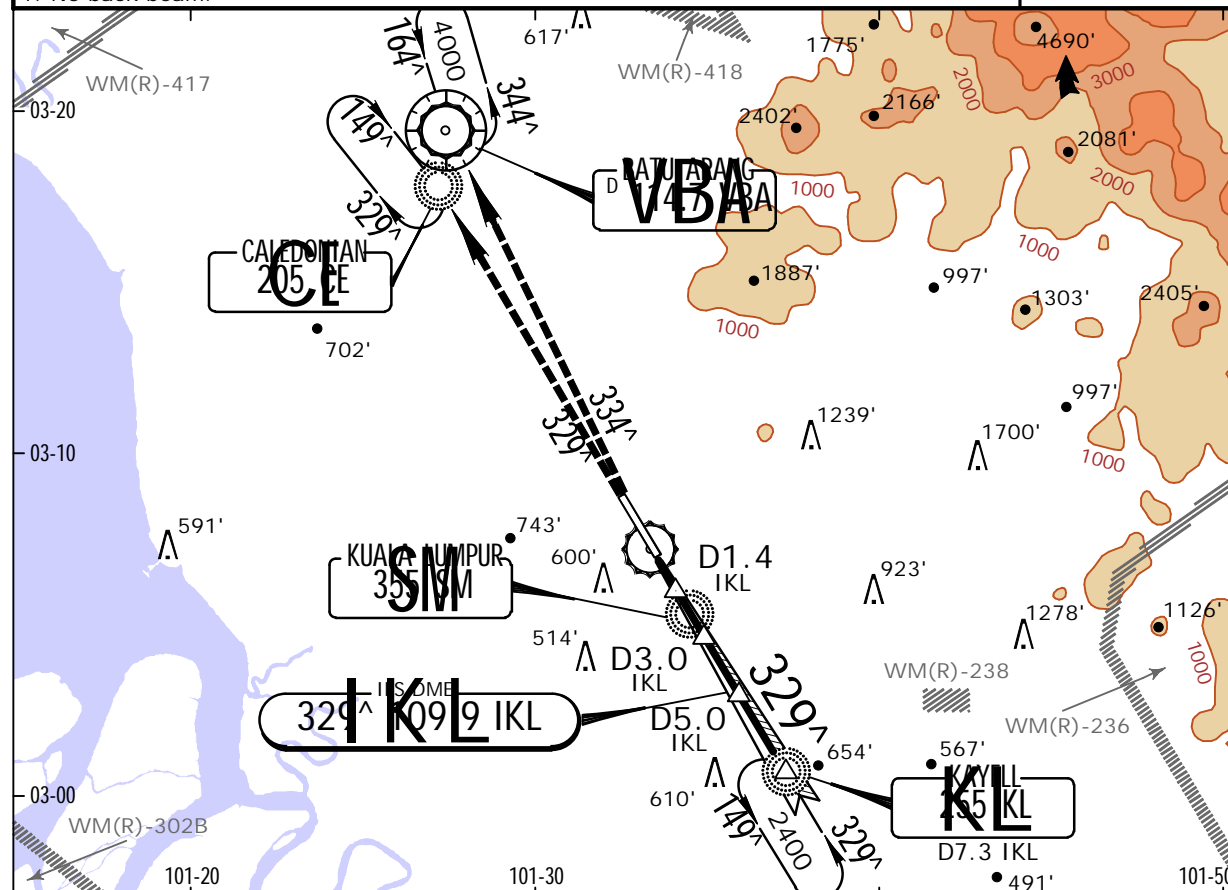
KUALA LUMPUR, MALAYSIA

ILS Rwy 33

BRIEFING STRIP

SH/HP SUBANG

*ATIS 127.6		LUMPUR Approach 124.2 [DIRECTOR (R) 125.1]		SUBANG Tower 118.2		Ground 121.9	
LOC IKL 109.9	Final Apch Crs 329^	GS SM NDB 757' (667')	ILS DA(H) Refer to Minimums	Apt Elev 90'	Rwy 33 90'	 MSA VBA VOR	
MISSED APCH: Climb on 329^ to CE NDB and hold at 3300', or climb on 334^ to VBA VOR and hold at 4000', or as directed by ATC.							
Alt Set: hPa		Rwy Elev: 3 hPa		Trans level: FL 130			
1. No back beam.							



Gnd speed-Kts	70	90	100	120	140	160
ILS GS	3.00°	377	484	538	646	753
LOC Descent Gradient 5.4%	383	492	547	656	766	875
With DME MAP at D1.4 IKL, Without DME MAP at MDA(H)						

STRAIGHT-IN LANDING RWY33				CIRCLE-TO-LAND	
ILS		LOC (GS out)			
A, B: 290' (200')		MDA(H) 450' (360')			
C: 295' (205')					
D: 300' (210')					
FULL		ALS out		Max Kts	MDA(H)
A				100	950' (860')-2300m
B				135	
C	RVR 800m	RVR 1200m	RVR 1500m	180	1700' (1610')-4800m
D			RVR 1600m	205	1700' (1610')-4800m

IS OPS

WMSA/SZB

SULTAN ABDUL AZIZ  
SHAH-SUBANG

29 OCT 10

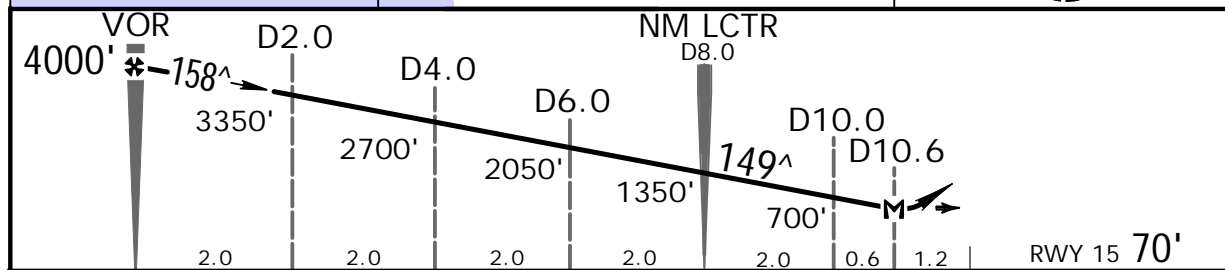
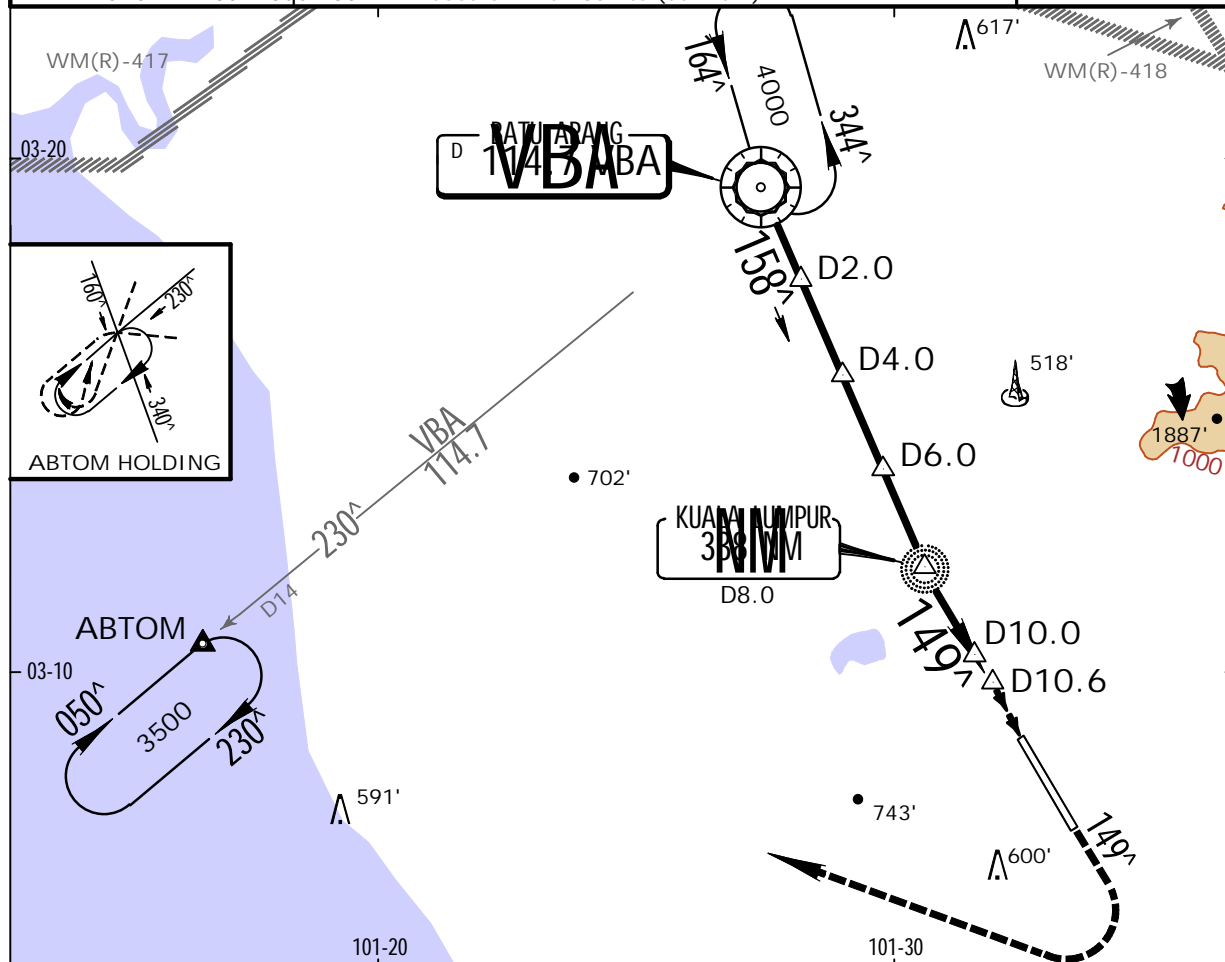
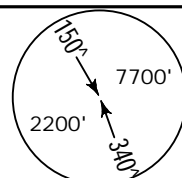
(13-1)

JEPPESSEN KUALA LUMPUR, MALAYSIA

VOR Rwy 15

BRIEFING STRIP™

* ATIS 127.6	124.2	LUMPUR Approach [ DIRECTOR (R) 125.1 ]	SUBANG Tower 118.2	Ground 121.9
VOR VBA 114.7	Final Apch Crs 149°	Minimum Alt VOR 4000' (3930')	MDA(H) 500' (430')	Apt Elev 90' Rwy 15 70'
MISSED APCH: Climb on 149° and on passing 1100' turn RIGHT, climb to 4000' to ABTOM and hold, or as directed by ATC.				
Alt Set: hPa Rwy Elev: 3 hPa Trans level: FL 130 Trans alt: 11000'				
1. DME and NM Lctr required. 2. Based on IAS 230 kts (still air).				



Gnd speed-Kts	70	90	100	120	140	160	
Descent Gradient	5.4%	383	492	547	656	766	875
MAP at D10.6							

STRAIGHT-IN LANDING RWY 15				CIRCLE-TO-LAND			
MDA(H) 500' (430')							
ALS out				MDA(H)			
A				Max Kts			
B	1400m	2200m		100	950' (860') -2200m		
C				135			
D	1600m	2400m		180	1700' (1610') -4800m		
				205			

IS OPS

WMSA/SZB

SULTAN ABDUL AZIZ  
SHAH-SUBANG

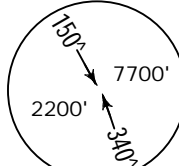
6 JUN 14

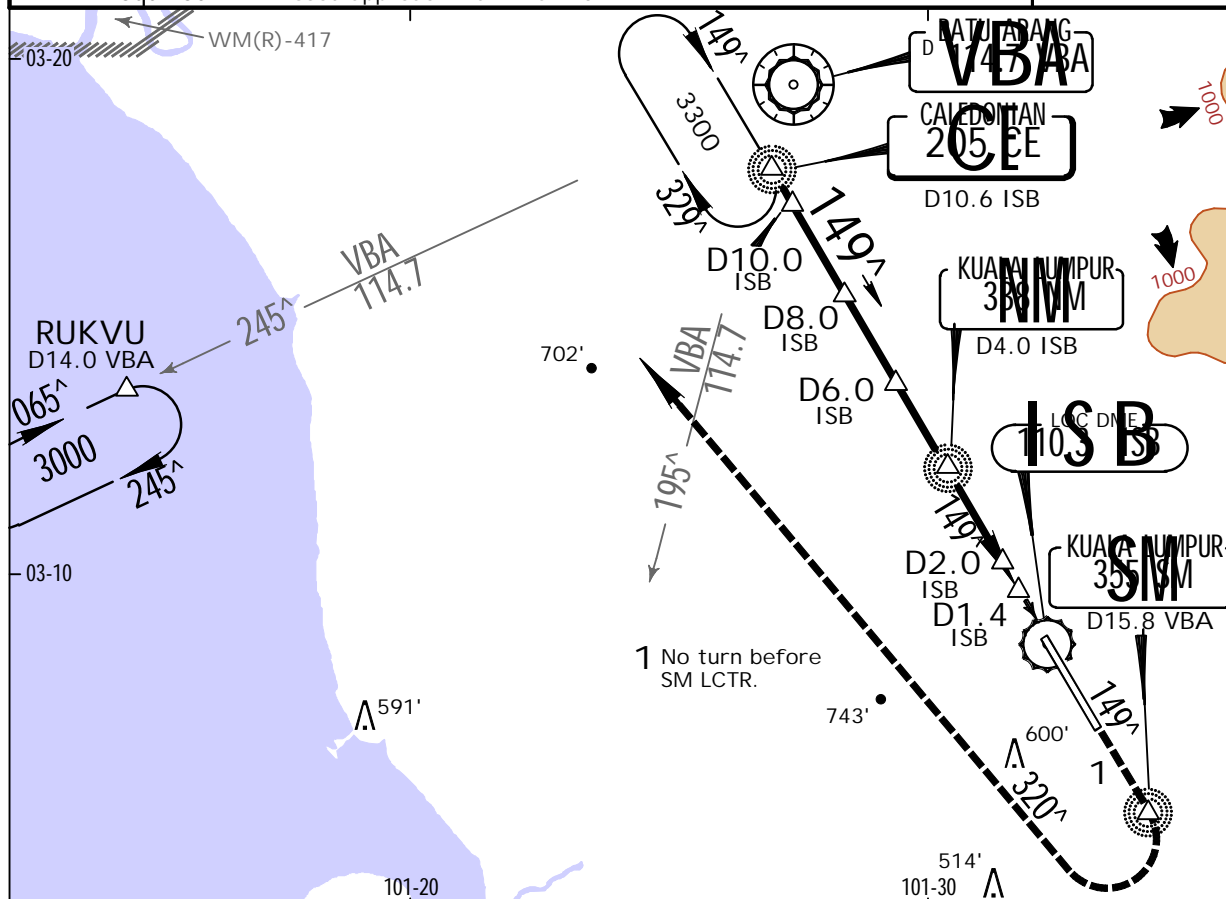
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JEPPESEN KUALA LUMPUR, MALAYSIA

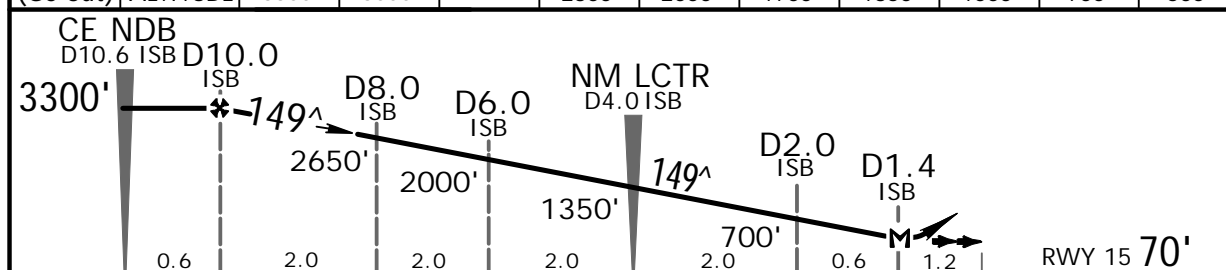
NDB Rwy 15

BRIEFING STRIP

* ATIS 127.6		LUMPUR Approach 124.2 118.65 119.45		SUBANG Tower 118.2		Ground 121.9	
NDB CE 205	Final Apch Crs 149^	Minimum Alt D10.0 ISB 3300' (3230')	MDA(H) 500' (430')	Apt Elev 90' Rwy 15 70'			
MISSED APCH: Proceed on track 149^ climbing initially to 2000'. Passing 1000', not before SM LCTR (D15.8 VBA), turn RIGHT (IAS MAX 210kt) on 320^ . Crossing R-195 VBA continue climb to 3000; reaching 3000' turn left bound to RUKVU holding pattern.							
Alt Set: hPa 1. DME required.		Rwy Elev: 3 hPa 2. Missed approach Max IAS 210 KT.	Trans level: FL 130 Trans alt: 11000'		MSA VBA VOR		



LOC (GS out)	ISB DME	10.0	9.0	8.0	7.0	6.0	5.0	4.0	3.0	2.0	1.4
	ALTITUDE	3300'	3000'	2650'	2300'	2000'	1700'	1350'	1000'	700'	500'



Gnd speed-Kts	70	90	100	120	140	160	
Descent Gradient	5.2%	369	474	527	632	737	
MAP at D1.4 ISB							
STRAIGHT-IN LANDING RWY 15							CIRCLE-TO-LAND
MDA(H) 500' (430')							Max Kts
ALS out							100
RVR 1500m							135
RVR 2300m							180
							MDA(H)
							950' (860') - 2300m
							1700' (1610') - 4800m

IS OPS

WMSA/SZB

SULTAN ABDUL AZIZ  
SHAH-SUBANG

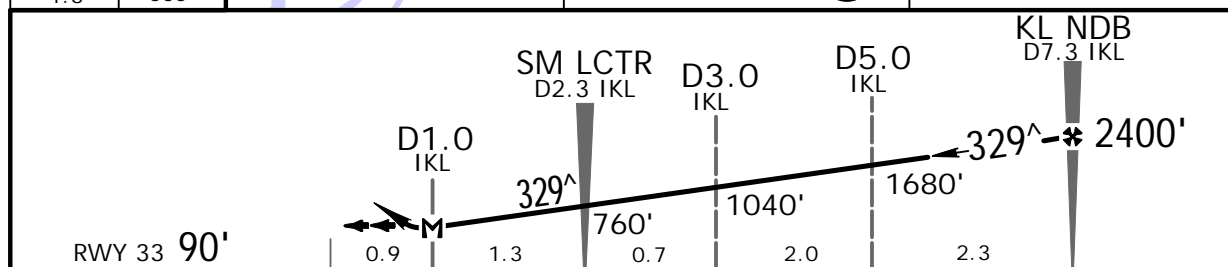
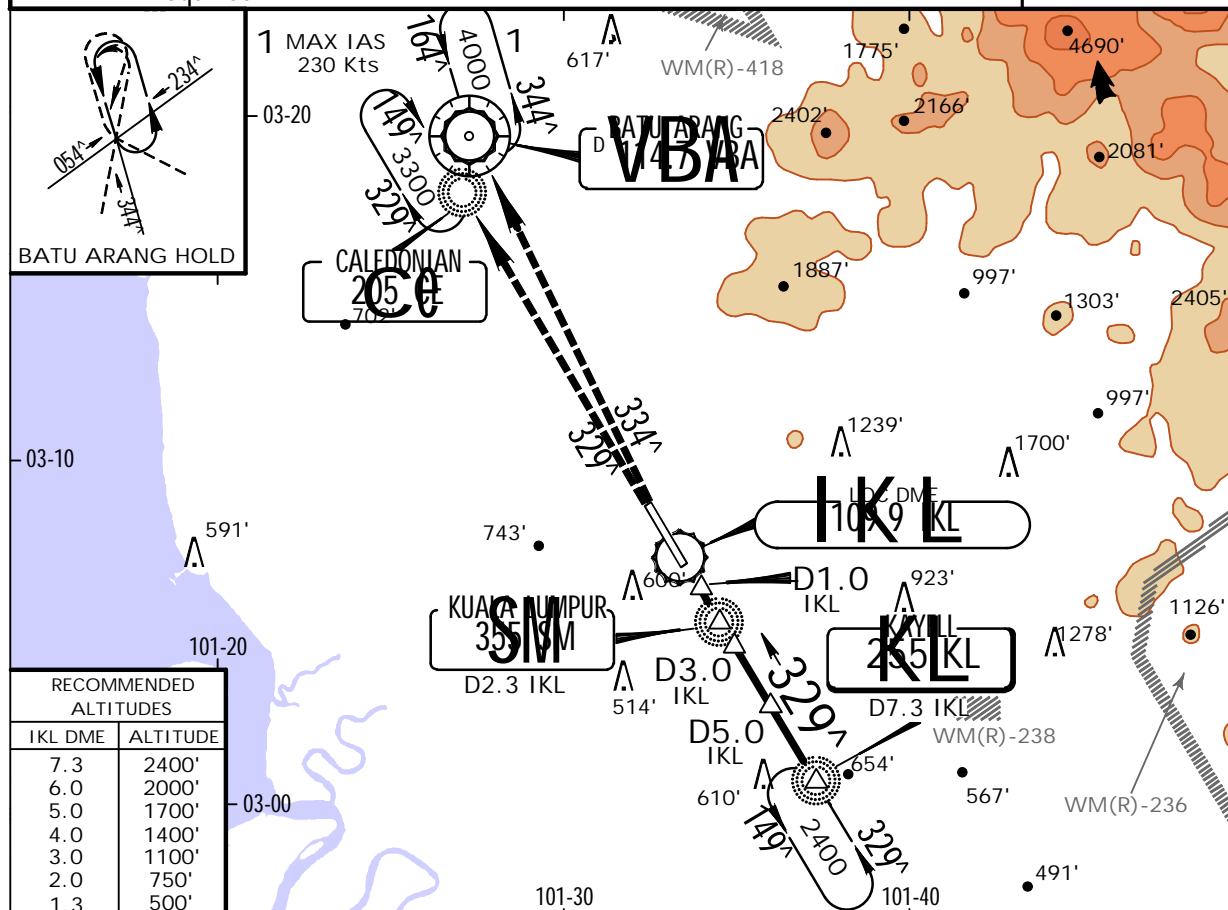
6 JUN 14 (16-2)

JEPPESSEN KUALA LUMPUR, MALAYSIA

NDB Rwy 33

BRIEFING STRIP™

*ATIS 127.6	LUMPUR Approach 124.2 [DIRECTOR (R) 125.1]	SUBANG Tower 118.2	Ground 121.9
NDB KL 255	Final Apch Crs 329^	Minimum Alt KL NDB 2400' (2310')	MDA(H) 500' (410')
		Apt Elev 90' Rwy 33 90'	
MISSED APCH: Climb on 329^ to CE NDB and hold at 3300', or climb on 334^ to VBA VOR and hold at 4000', or as directed by ATC.			
Alt Set: hPa	Rwy Elev: 3 hPa	Trans level: FL 130	Trans alt: 11000'
1. IKL DME required.			MSA KL NDB



Gnd speed-Kts	70	90	100	120	140	160
Descent Gradient	5.3%	376	483	537	644	751
MAP at D1.0 IKL						

STRAIGHT-IN LANDING RWY33			CIRCLE-TO-LAND		
MDA(H) 500' (410')					
ALS out			Max Kts.	MDA(H)	
RVR 1200m			100	950' (860') -1700m	
RVR 1600m			135	950' (860') -2000m	
			180	1700' (1610')-4800m	
			205	1700' (1610')-4800m	

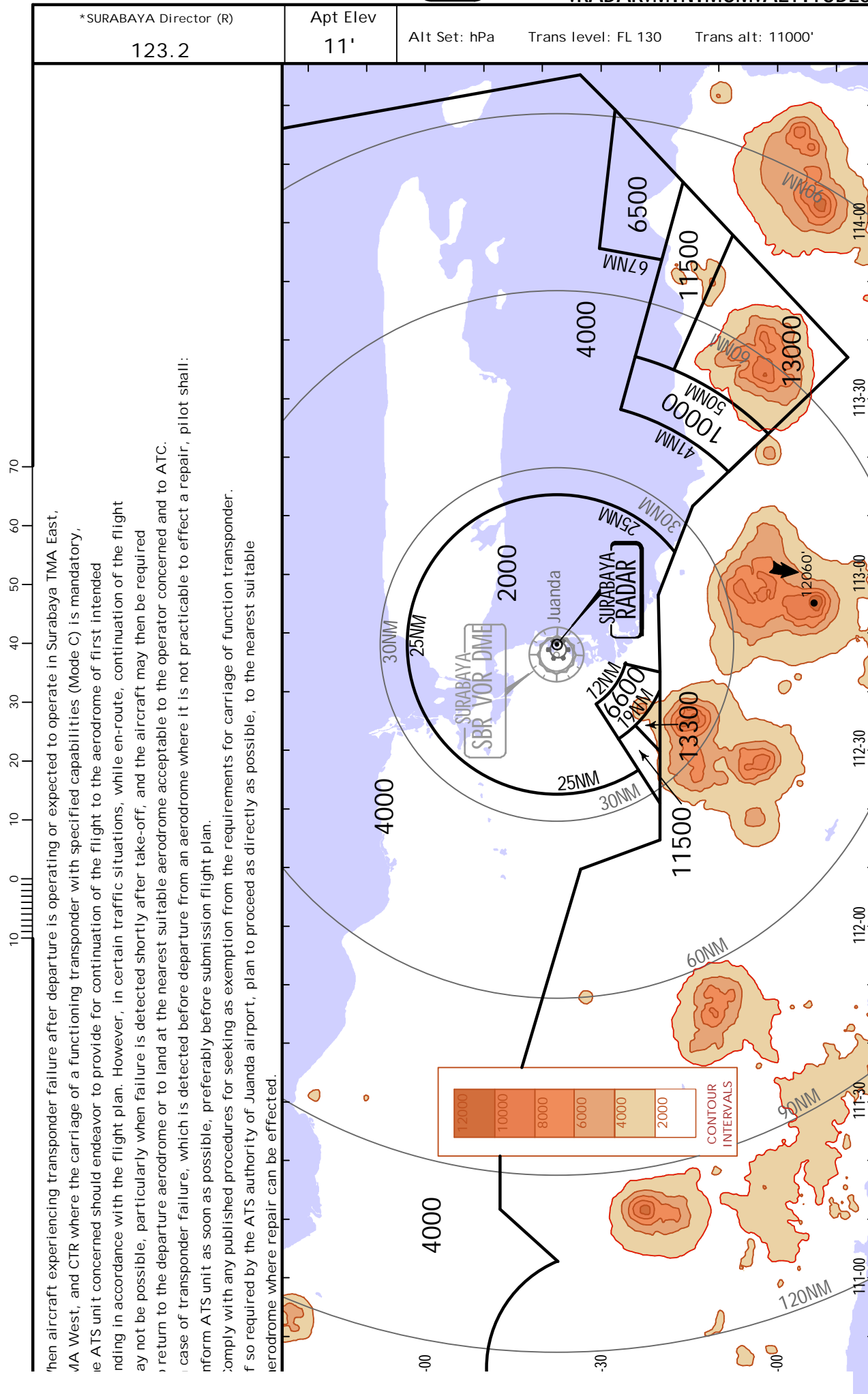
US OPS



WARR/SUB  
JUANDA

3 FEB 12 (10-1R)

SURABAYA, INDONESIA  
RADAR MINIMUM ALTITUDES



WARR/SUB  
JUANDA

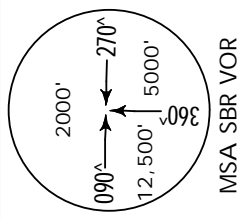
JEPPESEN  
4 FEB 11 10-2

SURABAYA, INDONESIA  
.STAR.

\*ATIS  
128.2

Apt Elev  
9'

Alt set: hPa  
Trans level: FL 130 Trans alt: 11000'



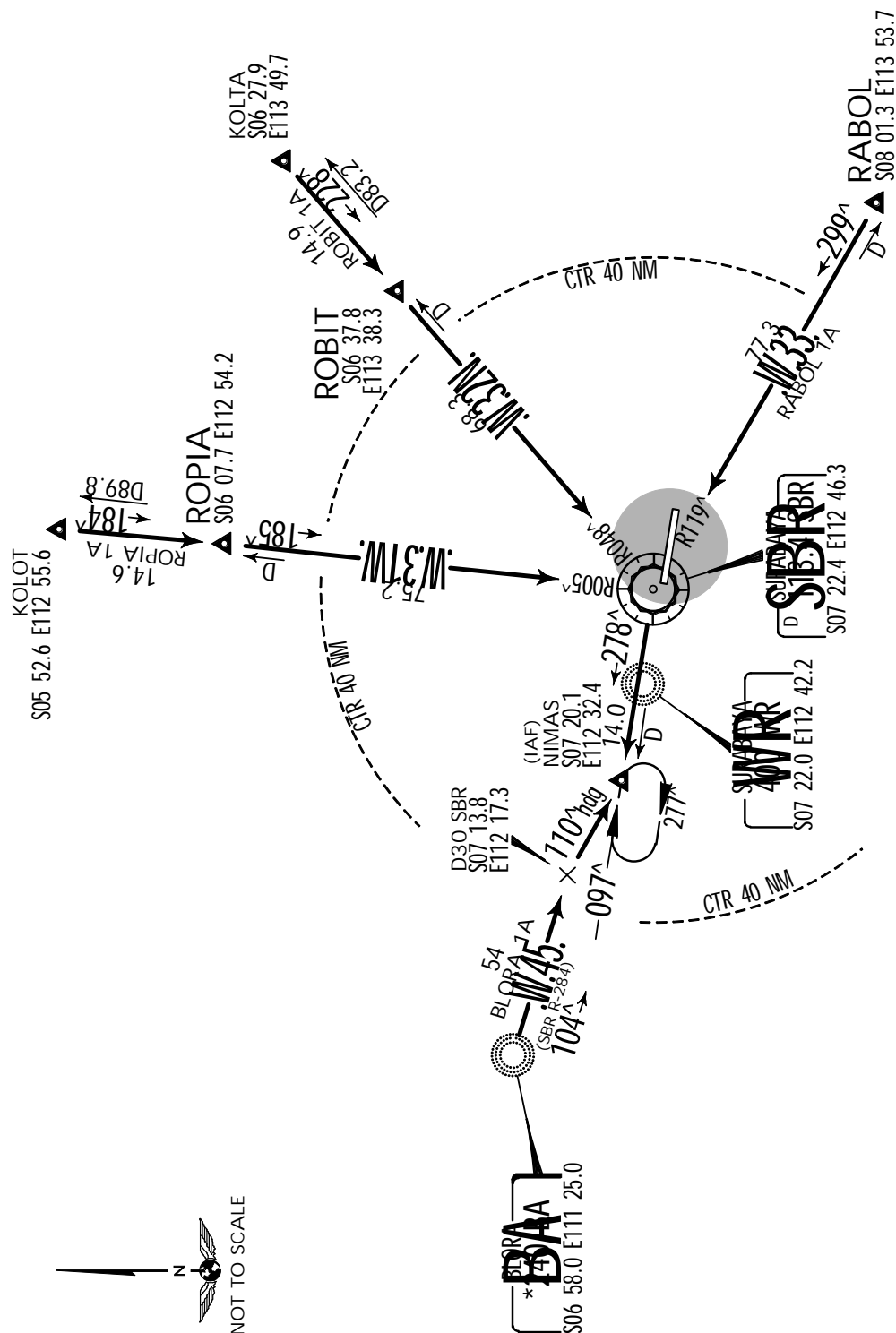
## RWY 10 ARRIVALS

BLORA ONE ALPHA [BLOR1A]

RABOL ONE ALPHA [RABO1A]

ROBIT ONE ALPHA [ROBI1A]

ROPIA ONE ALPHA [ROPI1A]



## ROUTING

## STAR

BLORA ONE ALPHA	Flying on SBR R-284 proceed to SBR, at D30 SBR turn RIGHT heading 110° to NIMAS.
RABOL ONE ALPHA	Flying on SBR R-119 proceed to SBR, then turn LEFT to intercept SBR R-278 to NIMAS.
ROBIT ONE ALPHA	Flying on SBR R-048 proceed to SBR, then turn RIGHT to intercept SBR R-278 to NIMAS.
ROPIA ONE ALPHA	Flying on SBR R-005 proceed to SBR, then turn RIGHT to intercept SBR R-278 to NIMAS.



WARR/SUB  
JUANDA

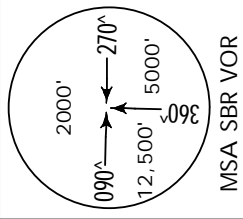
JEPPESSEN  
4 FEB 11 10-2A

SURABAYA, INDONESIA  
.STAR.

\*ATIS  
128.2

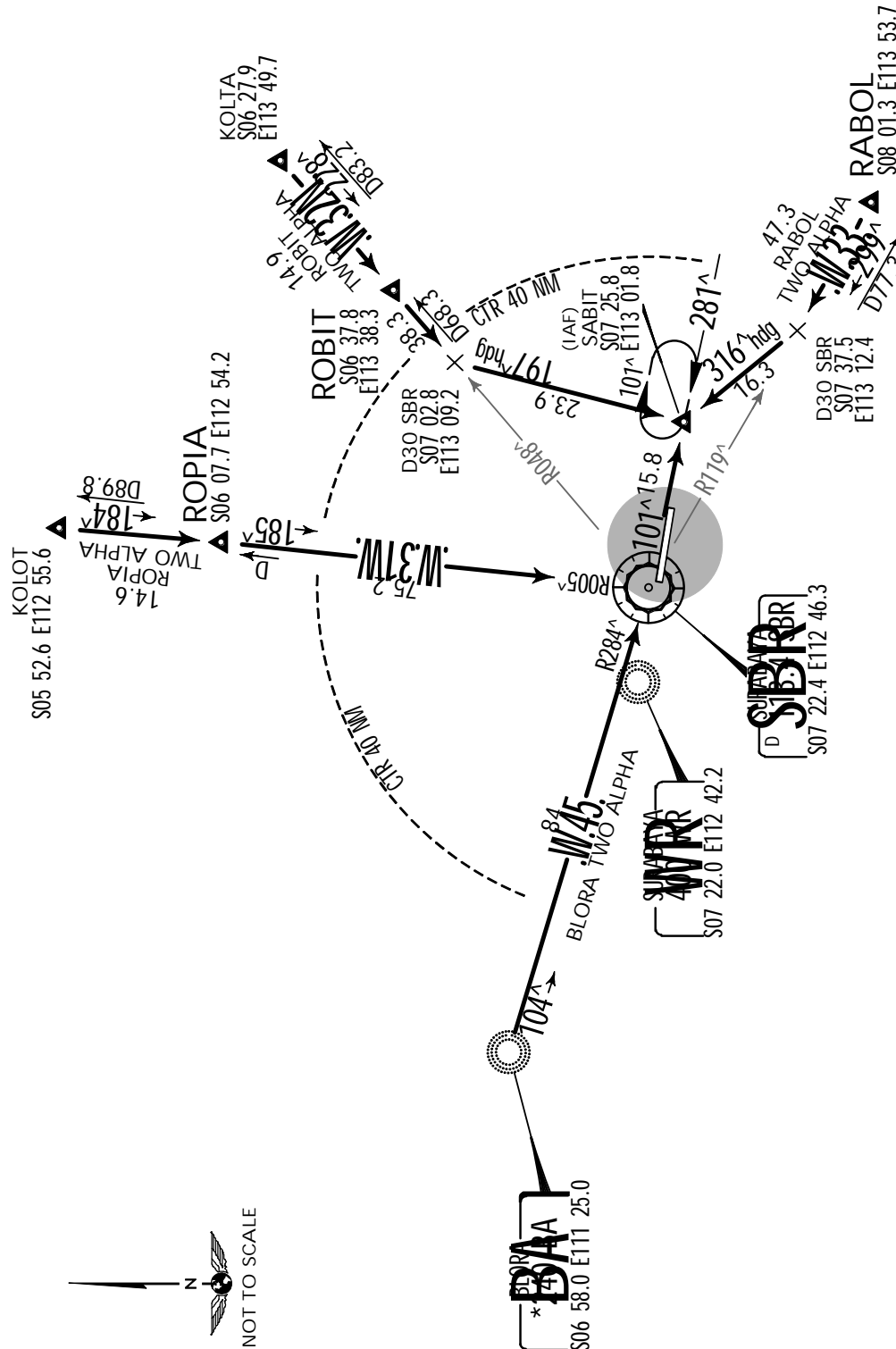
Apt Elev  
9'

Alt set: hPa  
Trans level: FL 130 Trans alt: 11000'



## RWY 28 ARRIVALS

BLORA TWO ALPHA [BLOR2A]  
RABOL TWO ALPHA [RABO2A]  
ROBIT TWO ALPHA [ROBI2A]  
ROPIA TWO ALPHA [ROPI2A]



### ROUTING

STAR	ROUTING
BLORA TWO ALPHA	Flying on SBR R-284 proceed to SBR, then turn LEFT to intercept SBR R-101 to SABIT.
RABOL TWO ALPHA	Flying on SBR R-119 proceed to SBR. At D30 SBR turn RIGHT heading 316° to SABIT.
ROBIT TWO ALPHA	Flying on SBR R-048 proceed to SBR. At D30 SBR turn LEFT heading 197° to SABIT.
ROPIA TWO ALPHA	Flying on SBR R-005 proceed to SBR, then turn LEFT to intercept SBR R-101 to SABIT.

WARR/SUB  
JUANDA

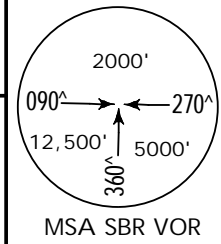


18 FEB 11 (10-3

**SURABAYA, INDONESIA**  
**.SID.**

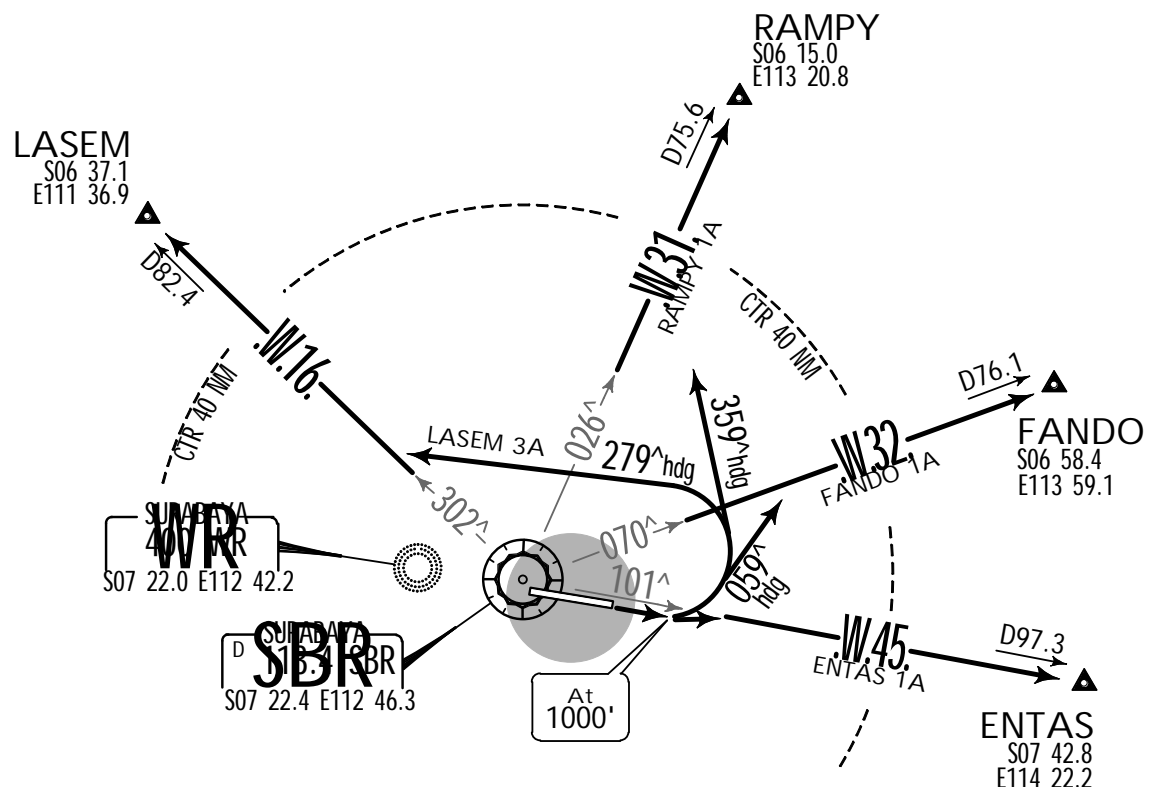
Apt Elev  
11'

Trans level: FL 130    Trans alt: 11000'



## RWY 10 DEPARTURES

ENTAS ONE ALPHA [ENTA1A],  
FANDO ONE ALPHA [FAND1A],  
LASEM THREE ALPHA [LASE3A],  
RAMPY ONE ALPHA [RAMP1A]



Direct distance from Juanda Apt to:

ENTAS	96 NM
FANDO	76 NM
LASEM	83 NM
RAMPY	75 NM



SID	INITIAL CLIMB
ENTAS ONE ALPHA	MAINTAIN runway heading until 1000', then join W-45.
FANDO ONE ALPHA	MAINTAIN runway heading until 1000', turn LEFT heading 059^ to join W-32.
LASEM THREE ALPHA	MAINTAIN runway heading until 1000', turn LEFT heading 279^ to join W-16.
RAMPY ONE ALPHA	MAINTAIN runway heading until 1000', turn LEFT heading 359^ to join W-16.

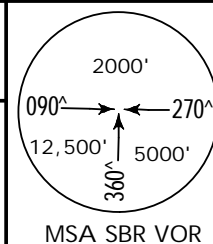
WARR/SUB  
JUANDA

**JEPPESEN**  
18 FEB 11 10-3A

SURABAYA, INDONESIA  
.SID.

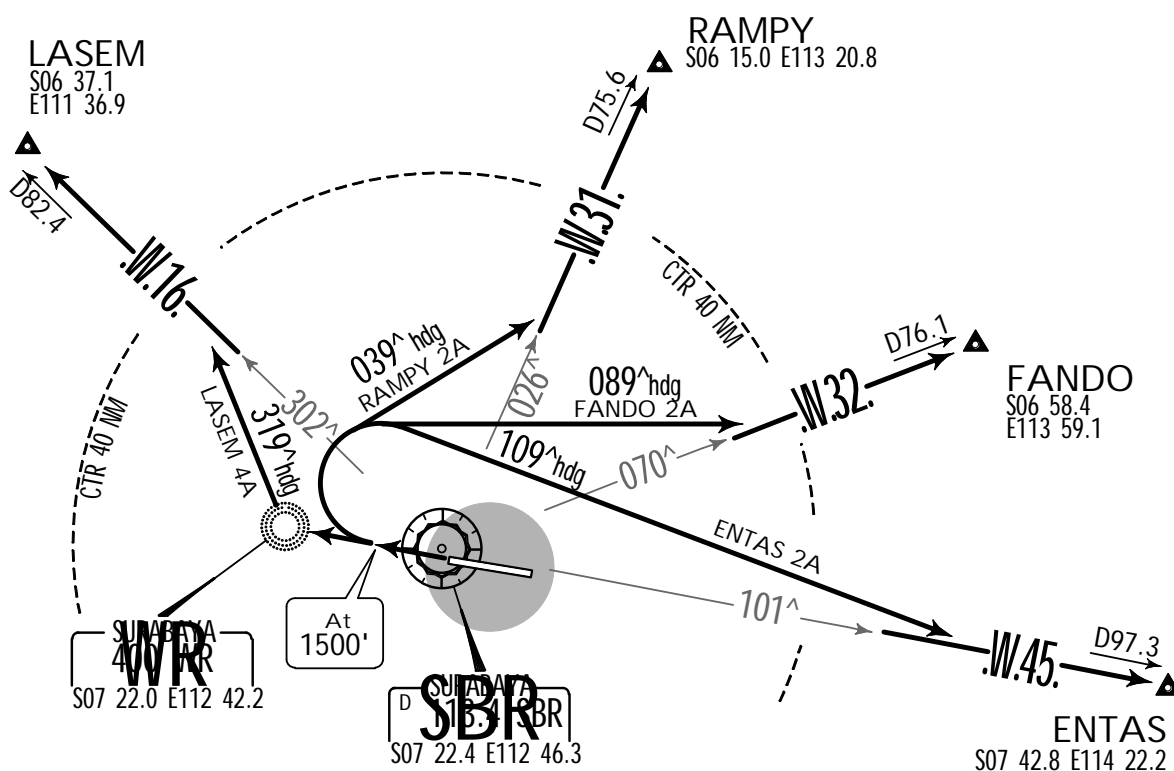
Apt Elev  
11'

Trans level: FL 130    Trans alt: 11000'



## RWY 28 DEPARTURES

ENTAS TWO ALPHA [ENTA2A],  
FANDO TWO ALPHA [FAND2A],  
LASEM FOUR ALPHA [LASE4A],  
RAMPY TWO ALPHA [RAMP2A]



Direct distance from Juanda Apt to:

ENTAS 96 NM  
FANDO 76 NM  
RAMPY 75 NM  
WR 5 NM



SID	INITIAL CLIMB
ENTAS TWO ALPHA	MAINTAIN runway heading until 1500', turn RIGHT heading 109^ to join W-45.
FANDO TWO ALPHA	MAINTAIN runway heading until 1500', turn RIGHT heading 089^ to join W-32.
LASEM FOUR ALPHA	Proceed to WR then turn RIGHT heading 319^ to join W-16.
RAMPY TWO ALPHA	MAINTAIN runway heading until 1500', turn RIGHT heading 039^ to

WARR/SUB

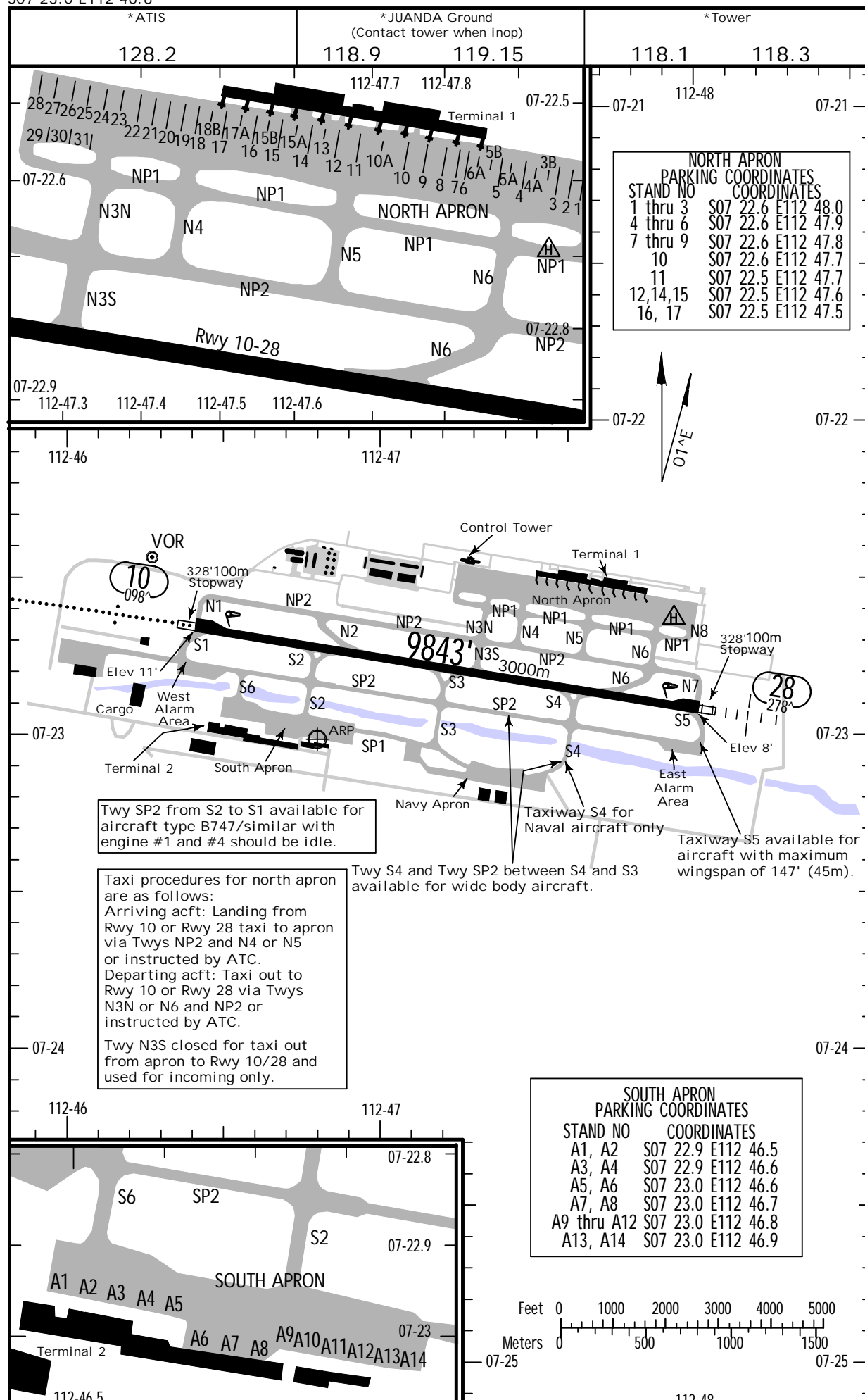
Apt Elev 11'  
S07 23.0 E112 46.8

JEPPESSEN

9 MAY 14 (10-9)

SURABAYA, INDONESIA

JUANDA



WARR/SUB

 **JEPPESEN**  
9 MAY 14 (10-9A)

**SURABAYA, INDONESIA**  
JUANDA

GENERAL

Follow nose-wheel guidelines when taxiing on Apron, Taxiways and entry/exit RWY.  
Aircraft turning area shall follow guidance line.  
Jet aircraft are not permitted to run up engines on apron.  
Two-way radio required.  
Birds in vicinity of airport.  
Rotating beacon.

ADDITIONAL RUNWAY INFORMATION

RWY		USABLE LENGTHS		TAKE-OFF	WIDTH
		Threshold	LANDING BEYOND Glide Slope		
10	HIRL (60m) HIALS SFL PAPI-L (angle 3.05°)		8864' 2702m		148'
28	HIRL (60m) REIL SALS PAPI-L (angle 3.02°)				45m

TAKE-OFF

AIR CARRIER (JAA)		AIR CARRIER (FAR 121)	
LVP must be in Force All Rwys RCLM (DAY only) or RL	All Rwys RCLM (DAY only) or RL	All Rwys Adequate Vis Ref	
A	RVR 250m	RVR 400m	2 Eng
B			400m
C			
D	RVR 300m		3 & 4 Eng

FOR FILING AS ALTERNATE

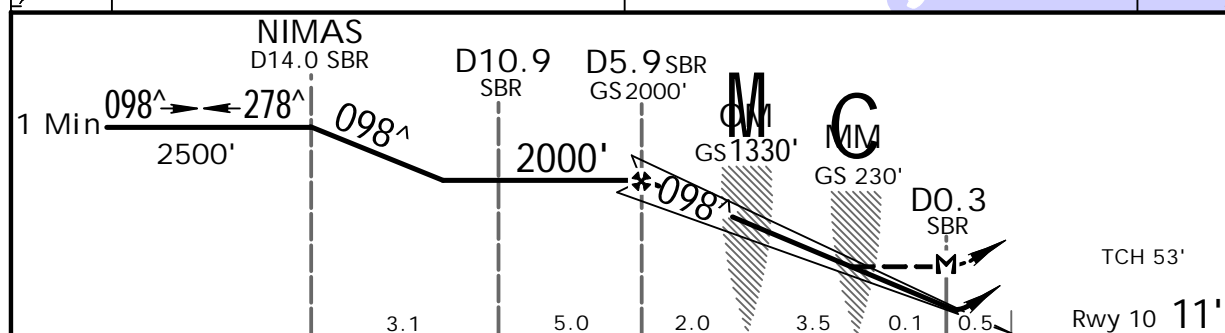
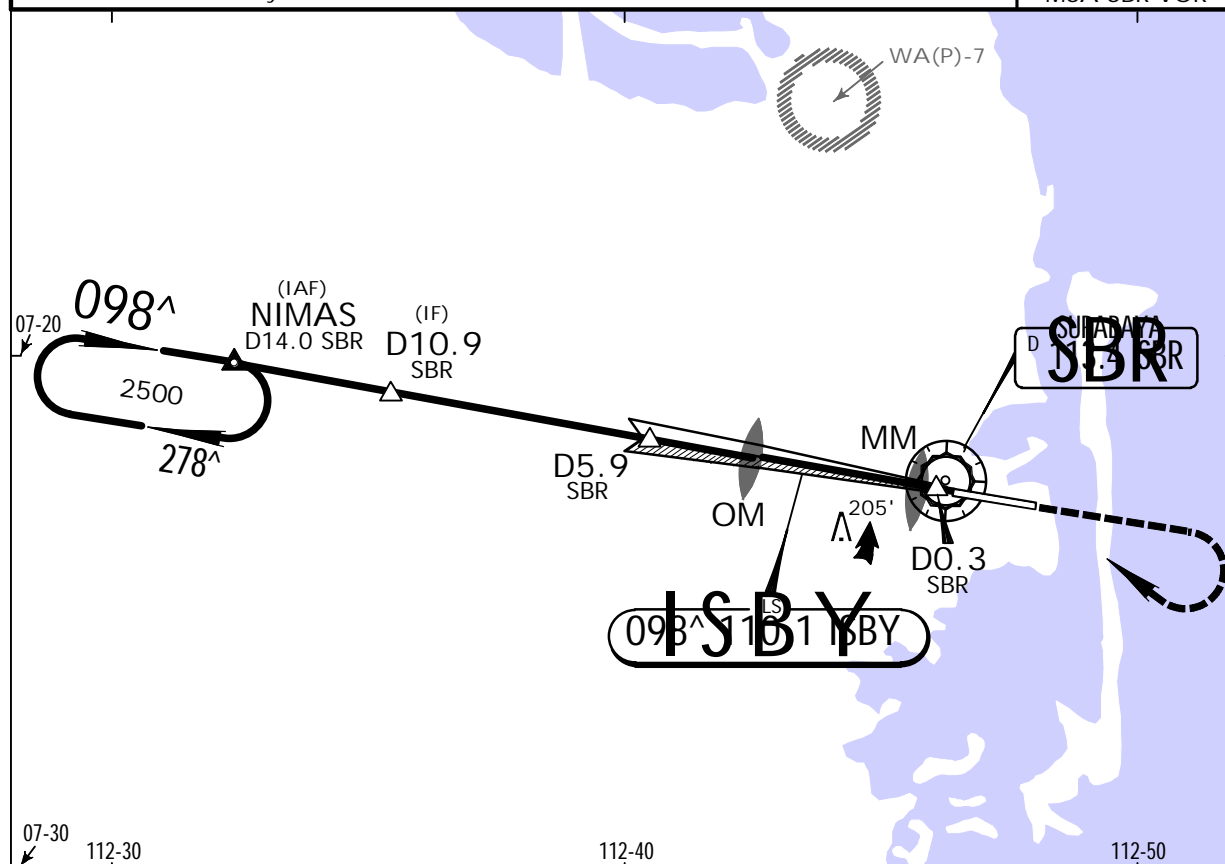

WARR/SUB  
JUANDA

JEPPESSEN  
29 AUG 14 (11-1)

SURABAYA, INDONESIA  
ILS Rwy 10

BRIEFING STRIP™

*ATIS	SURABAYA Control (R)		*SURABAYA Director (R)	*JUANDA Tower		*Ground
	WEST	EAST				(Contact tower when inop)
128.2	125.1	124.0	123.2	118.1	118.3	118.9 119.15
LOC ISBY 110.1	Final Apch Crs 098 <sup>^</sup>	GS OM 1330' (1319')	ILS DA(H) 211' (200')	Apt Elev 11'	Rwy 10 11'	
MISSED APCH: Climb STRAIGHT AHEAD to 1500' then turn RIGHT join SBR VOR R-278 climb to 2500' proceed to NIMAS for holding, consecutive approach or as instructed by ATC.						
Alt Set: hPa	Rwy Elev: 0 hPa	Trans level: FL 130	Trans alt: 11000'	MSA SBR VOR		



Gnd speed-Kts	70	90	100	120	140	160	HIALS		1500'	2500'	SBR
GS	3.00 <sup>^</sup>	372	478	531	637	743	PAPI		↑	RT	113.4
MAP at D0.3 SBR or D5.9 SBR to MAP	5.6	4:48	3:44	3:22	2:48	2:24					R-278

STRAIGHT-IN LANDING RWY10				CIRCLE-TO-LAND			
ILS		LOC (GS out)		Max Kts		MDA(H)	
DA(H) 211' (200')		MDA(H) 460' (449')					
FULL	ALS out		ALS out	100		610' (599') - 1600m	
A		800m	1600m	135			
B							
C	800m	1200m	2000m	180		800' (789') - 2400m	
D			2400m	205		800' (789') - 3600m	

IS OPS

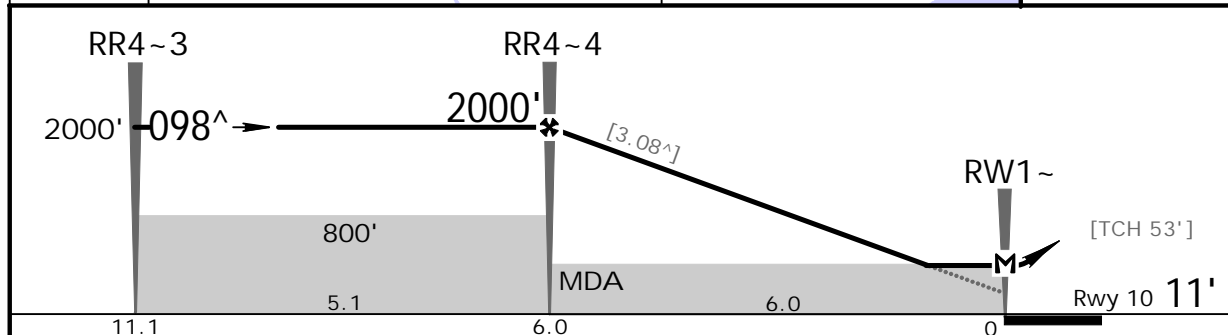
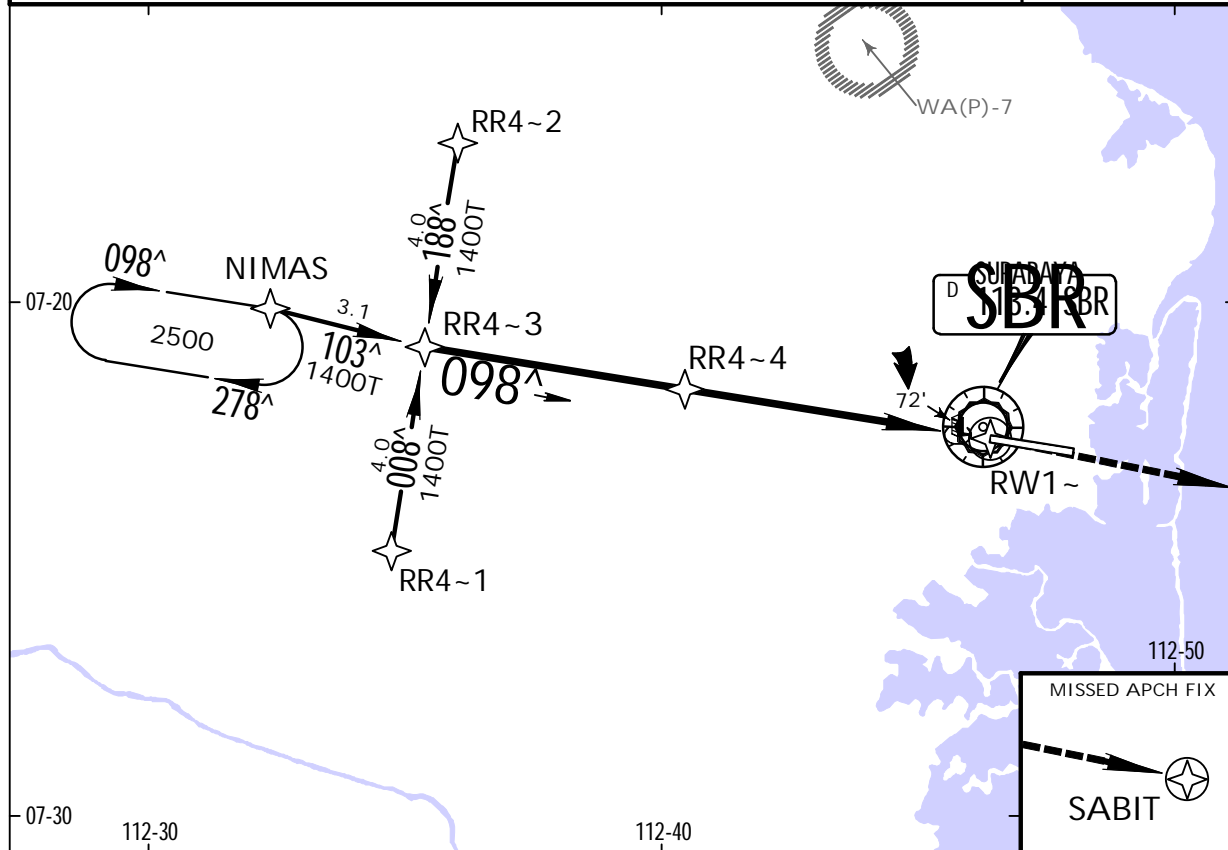
WARR/SUB  
JUANDA

JEPPESSEN  
29 AUG 14 (12-1)

SURABAYA, INDONESIA  
RNAV (GNSS) Rwy 10

BRIEFING STRIP™

*ATIS 128.2	SURABAYA Control (R) WEST EAST 125.1 124.0	*SURABAYA Director (R) 123.2	*JUANDA Tower 118.1 118.3	*Ground (Contact tower when inop) 118.9 119.15
RNAV	Final Apch Crs 098°	Minimum Alt RR4~4 2000' (1989')	LNAV/VNAV MDA(H) 370' (359')	Apt Elev 11' Rwy 10 11'
MISSED APCH: Climb STRAIGHT AHEAD 2500' to SABIT for holding and or as instructed by ATC.				
Alt Set: hPa Rwy Elev: 0 hPa Trans level: FL 130 Trans alt: 11000'				
1. GPS or RNP 0.30 required. 2. Max IAS for initial: 210 Kts. 3. Baro VNAV not authorized below 15°C (59°F).				
MSA SBR VOR				



Gnd speed-Kts	110	120	130	140	150	170	180			
Rate of decent on final (feet/min)	584	637	690	744	797	903	956			
MAP at RW1~										
RR4~4 to MAP	6.0	3:17	3:00	2:47	2:35	2:24	2:08	2:00		

STRAIGHT-IN LANDING RWY 10				CIRCLE-TO-LAND			
LNAV/VNAV		LNAV		Max		MDA(H)	
DA(H) 370' (359')		MDA(H) 460' (449')		Kts			
ALS out		ALS out					
A	1600m		1600m	100		610' (599')-1600m	
B				135			
C	2000m		2000m	180		800' (789')-3600m	
D	2400m		2400m	205		800' (789')-4000m	

INS OPS



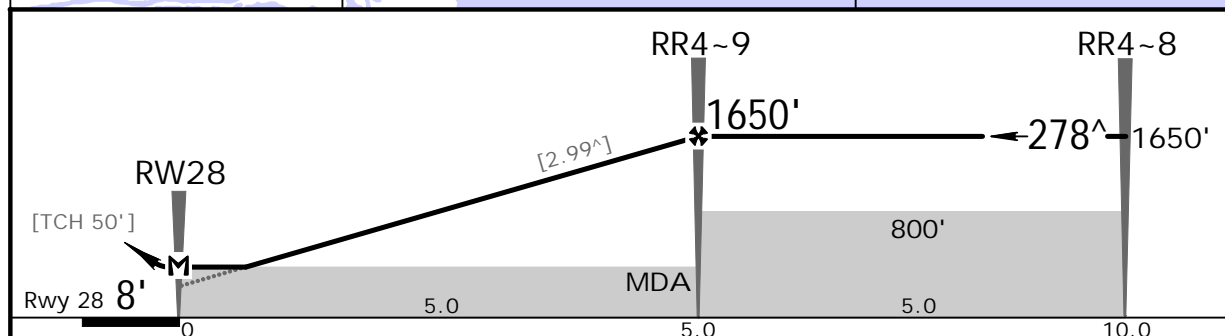
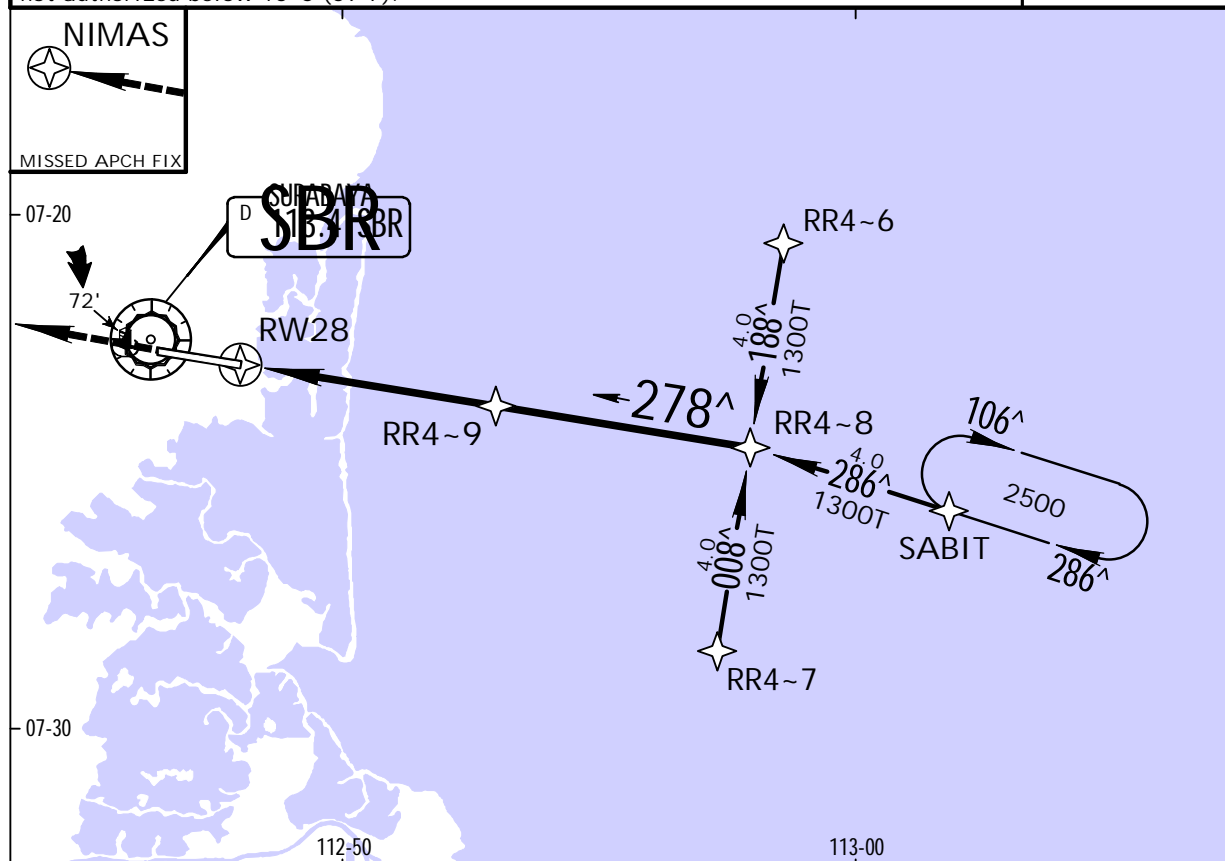
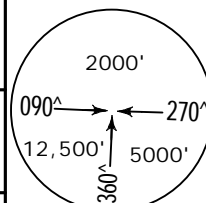
WARR/SUB  
JUANDA

JEPPESSEN  
29 AUG 14 (12-2)

SURABAYA, INDONESIA  
RNAV (GNSS) Rwy 28

BRIEFING STRIP™

*ATIS 128.2	SURABAYA Control (R) WEST 125.1 EAST 124.0	*SURABAYA Director (R) 123.2	*JUANDA Tower 118.1 118.3	*Ground (Contact tower when inop) 118.9 119.15
RNAV	Final Apch Crs 278°	Minimum Alt RR4~9 1650' (1642')	LNAV/VNAV MDA(H) 290' (282')	Apt Elev 11' Rwy 28 8'
MISSED APCH: Climb STRAIGHT AHEAD 2500' to NIMAS for holding and or as instructed by ATC.				
Alt Set: hPa Rwy Elev: 0 hPa Trans level: FL 130 Trans alt: 11000'				
1. GPS or RNP 0.30 required. 2. Max IAS for initial: 210 Kts. 3. Baro VNAV not authorized below 15°C (59°F).				
				MSA SBR VOR



Gnd speed-Kts	110	120	130	140	150	170	180	<div>SALS REIL PAPI</div> <div>2500' ↑ to NIMAS</div>
Rate of decent on final (feet/min)	584	637	690	744	797	903	956	
MAP at RW28								
RR4~9 to MAP	5.0	2:44	2:30	2:19	2:09	2:00	1:46	

STRAIGHT-IN LANDING RWY 28				CIRCLE-TO-LAND	
LNAV/VNAV DA(H) 290' (282')		LNAV MDA(H) 460' (452')		Max Kts	MDA(H)
ALS out		ALS out		100	610' (599') - 1600m
1600m		1600m		135	
2000m		2000m		180	800' (789') - 3600m
2000m		2400m		205	800' (789') - 4000m

INS OPS

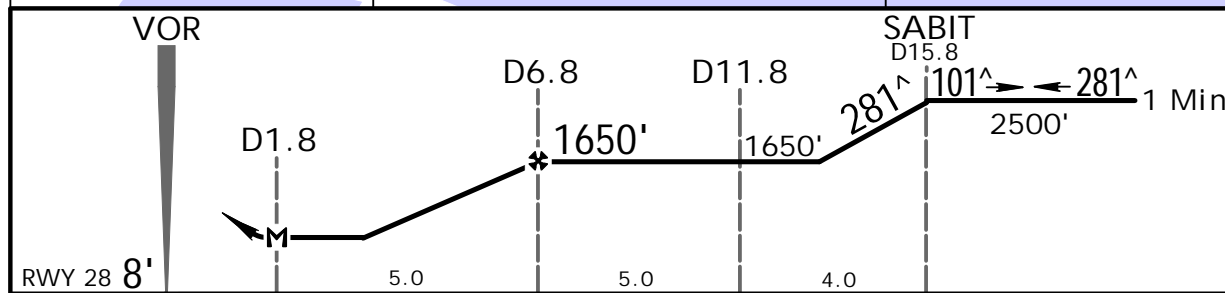
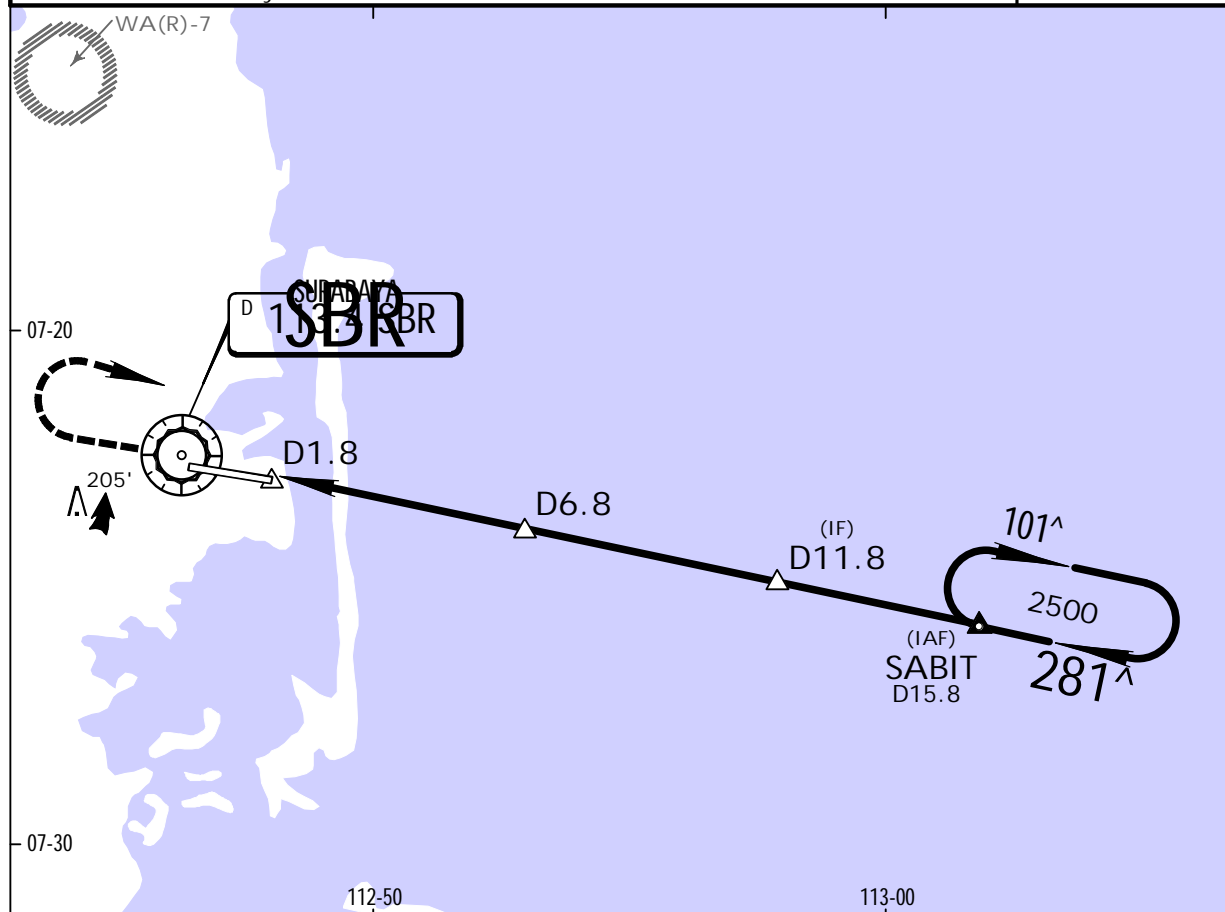
WARR/SUB  
JUANDA

JEPPESEN  
4 FEB 11 (13-1)

SURABAYA, INDONESIA  
VOR DME Rwy 28

BRIEFING STRIP™

*ATIS	SURABAYA Control (R)		*SURABAYA Director (R)	*JUANDA Tower		*Ground (Contact tower when inop)
128.2	WEST 125.1	EAST 124.0	123.2	118.1	118.3	118.9 119.15
VOR SBR 113.4	Final Apch Crs 281 <sup>^</sup>	Minimum Alt D6.8 1650' (1642')	MDA(H) 460' (452')	Apt Elev 11'	Rwy 28 8'	
MISSED APCH: Climb to 1500' then turn RIGHT climb to 2500' proceed to SABIT for holding, consecutive approach or as instructed by ATC.						
Alt Set: hPa	Rwy Elev: 0 hPa	Trans level: FL 130	Trans alt: 11000'	MSA SBR VOR		



Gnd speed-Kts	90	100	110	120	130	150	170	<div>SALS</div> <div>REIL</div> <div>PAPI</div>	1500'	2500'	SABIT
Rate of descent on final (feet/min)	474	526	579	632	684	790	895		↑	↻ RT	
MAP at D1.8 or FAF to MAP	5.0	2:41	2:25	2:12	2:01	1:51	1:36				

STRAIGHT-IN LANDING RWY 28				CIRCLE-TO-LAND			
MDA(H) 460' (452')				MDA(H)			
ALS out				Max Kts			
A				100	610' (599') -1600m		
B	1600m			135			
C	2000m			180	800' (789') -2400m		
D	2400m			205	800' (789') -3600m		

VS OPS

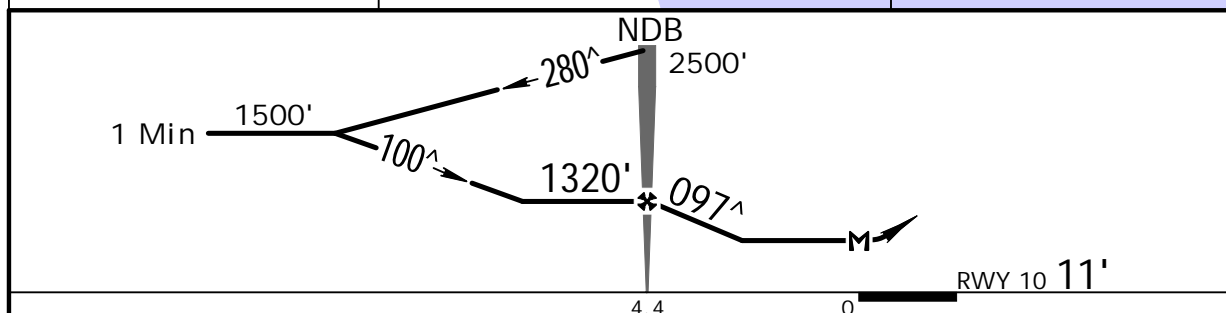
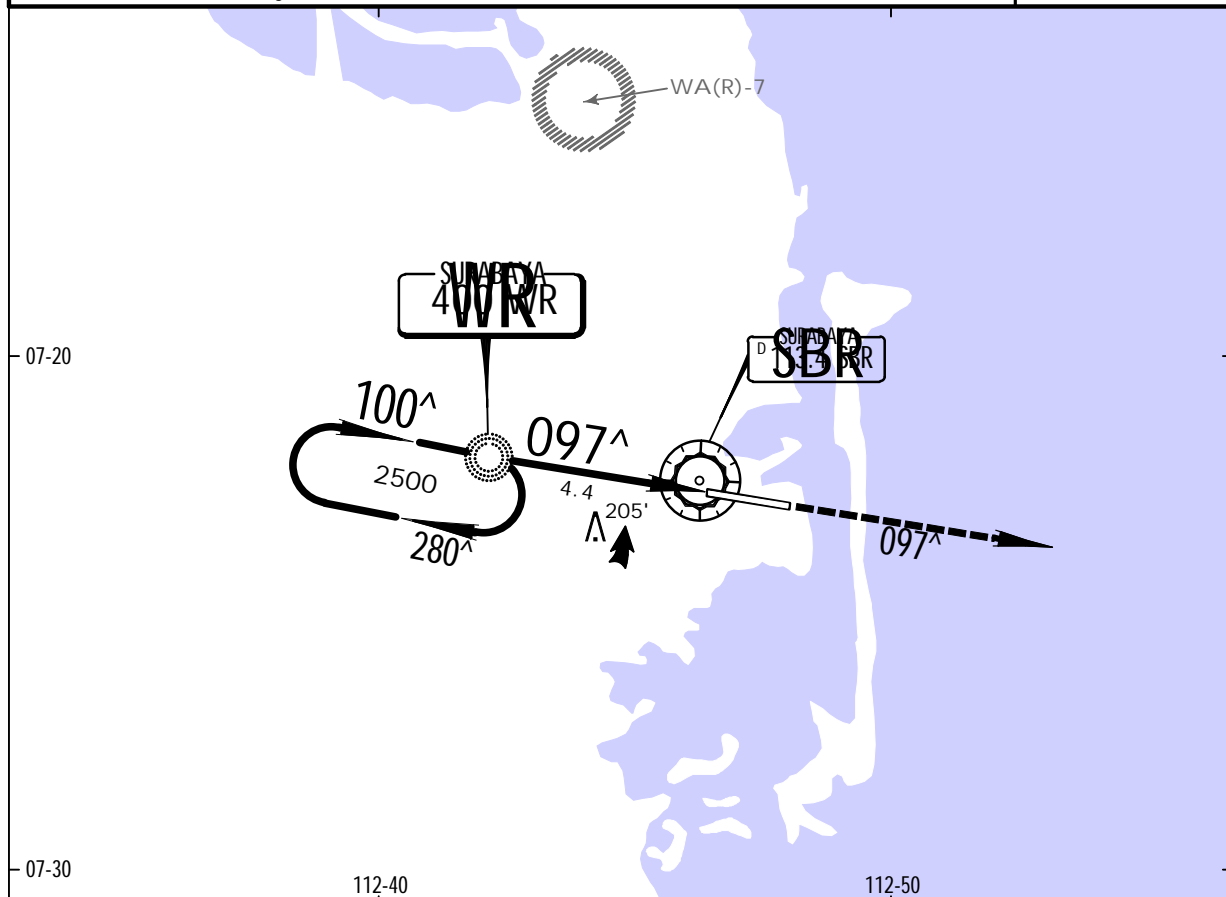
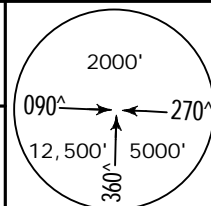
WARR/SUB  
JUANDA

JEPPESEN  
4 FEB 11 (16-1)

SURABAYA, INDONESIA  
NDB Rwy 10

BRIEFING STRIP™

* ATIS 128.2	SURABAYA Control (R) WEST EAST 125.1 124.0	* SURABAYA Director (R) 123.2	* JUANDA Tower 118.1 118.3	* Ground (Contact tower when inop) 118.9 119.15
NDB WR 400	Final Apch Crs 097°	Minimum Alt NDB 1320' (1309')	MDA(H) 510' (499')	Apt Elev 11' Rwy 10 11'
MISSED APCH: Climb to 2500' and return to the holding fix or as instructed by ATC.				
Alt Set: hPa	Rwy Elev: 0 hPa	Trans level: FL 130	Trans alt: 11000'	MSA WR NDB



Gnd speed-Kts	120	130	140	150	160	<div> <div>HIALS</div> <div>PAPI</div> <div>2500'</div> <div>↑</div> <div>WR 400</div> </div>
Rate of descent on final (feet/min)	585	630	680	730	780	
NDB to MAP	4.4	2:12	2:02	1:53	1:46	

STRAIGHT-IN LANDING RWY 10				CIRCLE-TO-LAND	
MDA(H) 510' (499')				MDA(H)	
ALS out				Max Kts.	
				100	610' (599')-1600m
				135	
				180	610' (599')-2400m
				205	700' (689')-3600m
A	1200m	1600m			
B					
C		2000m			
D	2000m	2400m			

IS OPS